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ABSTRACT

The Instructional Program Planning and Evaluation System (IPPE) Master Objective Bank of the Jackson Public Schools, Michigan, provides a complete listing of the science instructional topics and objectives for kindergarten through the sixth grade. Each item is coded with a ten-digit numeral, which enables the user to categorize a given objective or to locate a given objective according to the following system: (1) the first two digits of the code indicate the subject matter area, classified under the headings of mathematics, reading and grammar, science, social studies, and writing skills and written expressions; (2) the third and fourth digits indicate the grade level; (3) the fifth, sixth, and seventh digits indicate the topic of the instructional unit covered by the objective, and these topics together with their assigned codes are listed on the Topic Summary Sheet; and (4) the eighth, ninth, and tenth digits indicate the objective within the topic, allowing for a maximum of one thousand objectives to be grouped under a single instructional unit topic. In this volume the objectives are primarily grouped according to grade level, with a secondary alphabetical ordering of topics under each grade level. This work was prepared under an ESEA Title III contract. (JR)

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I.P.P.E.S. MASTER OBJECTIVES
SCIENCE (K-6) CATALOG

JACKSON PUBLIC SCHOOLS
INSTRUCTIONAL PROGRAM
PLANNING & EVALUATION SYSTEM

290 WEST MICHIGAN AVENUE
JACKSON, MICHIGAN 49201

Funded under Title III, ESEA of 1965,
Michigan Department of Education Project Number 0621

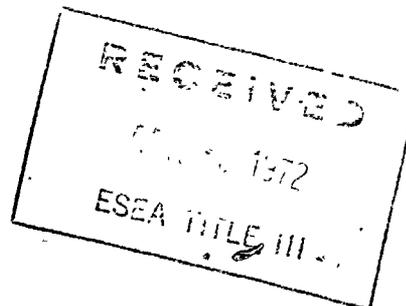
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MASTER OBJECTIVES BANK

INSTRUCTIONAL PROGRAM PLANNING & EVALUATION SYSTEM (K-6) CATALOG



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EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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ITEM CODE NUMBERS

Each item of the I.P.P.E.S. Master Objectives Bank is coded with a ten digit number user to categorize a given objective or to locate a needed objective according to a number.

1. Subject matter major classification. Initially IPPEES will provide objective codes for (a) mathematics, (b) reading, (c) science, (d) social studies, and (e) writing skills and (f) grammar. The first two digits (left to right) indicate subject matter:
 - (a) 00XXXXXXXX = mathematics
 - (b) 01XXXXXXXX = reading
 - (c) 02XXXXXXXX = science
 - (d) 03XXXXXXXX = social studies
 - (e) 04XXXXXXXX = writing

2. Grade Level. The grade level at which an objective is normally or traditionally taught is indicated in the third and fourth digits of the code number. The first issue of the catalog is for grades through grade six according to the following code:
 - (a) XX00XXXXXX = kindergarten
 - (b) XX01XXXXXX = first grade
 - (c) XX02XXXXXX = second grade
 - (d) XX03XXXXXX = third grade
 - (e) XX04XXXXXX = fourth grade
 - (f) XX05XXXXXX = fifth grade
 - (g) XX06XXXXXX = sixth grade

3. Topic of Instructional Unit: The fifth, sixth, and seventh digits indicate the objective. Each subject matter major classification may be divided into sub-classifications. The three digit numerals assigned to topics specific to this catalog are found in the body of the catalog all objectives associated with a topic are grouped together and are associated with a seven digit number.

ITEM CODE NUMBERS

atives Bank is coded with a ten digit numeral. The system chosen makes it easy for any
e a needed objective according to a number of factors:

Initially IPPES will provide objectives in five areas: (a) mathematics, (b) reading
studies, and (c) writing skills and written expression. The first two digits (from
r:

cs

udies

h an objective is normally or traditionally introduced into the curriculum is coded
he code number. The first issue of the catalogs covers the grade span from kindergarten
llowing code:

ten

de.

ade

de

ade

de

ade

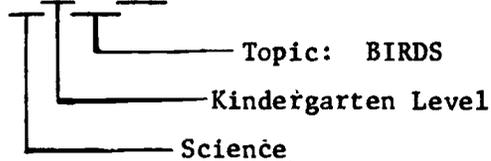
th, sixth, and seventh digits indicate the topic of the instructional unit covered by
major classification may be divided into one thousand topics within each grade level.
topics specific to this catalog are found on the following Topic Summary Sheet. Within
as associated with a topic are grouped within grade levels. Topic headings are given
t number.

4. Objective Within Topic. A maximum of one thousand objectives may be grouped under or eighth, ninth, and tenth digits of the code number indicate the objective within the

SPECIFIC EXAMPLES OF CODING

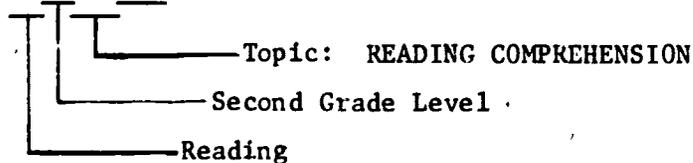
1. Science

0200060007 KNOW THE PARTS OF A CHICKEN EGG. (Seventh objective within topic)



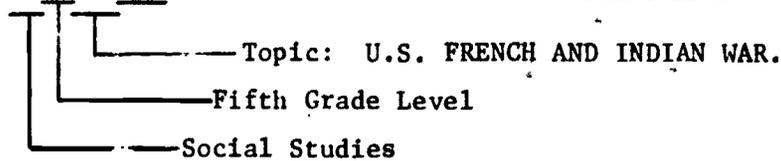
2. Reading

0102025001 SELECTS MAIN IDEA OF A PARAGRAPH. (First objective within topic)



3. Social Studies

0305295002 NAME THE MAIN CAUSES OF THE FRENCH AND INDIAN WAR. (Second objective within topic)



and objectives may be grouped under one Instructional Unit Topic. The number indicate the objective within the topic.

SPECIFIC EXAMPLES OF CODING

(Seventh objective within topic)

(First objective within topic)

THE AMERICAN INDIAN WAR. (Second objective within topic)

WAR.

SCIENCE TOPIC SUMMARY SHEET
Grades K-6

| <u>CODE</u> | <u>TOPIC</u> | <u>CODE</u> |
|-------------|--|-------------|
| 005 | Adaptation (animals) | 180 |
| 010 | Adaptation (behavior) | 185 |
| 015 | Adaptation (defense) | 190 |
| 020 | Adaptation (food) | 195 |
| 025 | Adaptation (habitat) | 200 |
| 030 | Adaptation (man) | 205 |
| 035 | Adaptation (plants) | 210 |
| 040 | Adaptation (plants and animals) | 215 |
| 045 | Air | 220 |
| 050 | Amphibians | 225 |
| 055 | Animals | 230 |
| 060 | Birds | 235 |
| 065 | Cells | 240 |
| 070 | Classification | 245 |
| 075 | Classify (animals) | 250 |
| 080 | Classify by five senses | 255 |
| 085 | Classify by kind, form, and properties | 260 |
| 090 | Classify (matter) | 265 |
| 095 | Classify (plants) | 270 |
| 100 | Classify (plant and animal) | 275 |
| 105 | Classify (plant and animal cells) | 280 |
| 110 | Cloth | 285 |
| 115 | Ecology | 290 |
| 120 | Electricity | 295 |
| 125 | Energy Transformation | 300 |
| 130 | Energy Transformation (air) | 305 |
| 135 | Energy Transformation (atoms) | 310 |
| 140 | Energy Transformation (burning candle) | 315 |
| 145 | Energy Transformation (carbon dioxide) | 320 |
| 150 | Energy Transformation (chemical) | 325 |
| 155 | Energy Transformation (combustion) | 330 |
| 160 | Energy Transformation (compounds) | 335 |
| 165 | Energy Transformation (compounds & mixtures) | 340 |
| 170 | Energy Transformation (condensation) | 345 |
| 175 | Energy Transformation (copper oxide) | 350 |

SCIENCE TOPIC SUMMARY SHEET
 Grades K-6

| <u>CODE</u> | <u>TOPIC</u> |
|-------------|---|
| 180 | Energy Transformation (decomposition) |
| 185 | Energy Transformation (electric) |
| 190 | Energy Transformation (elements) |
| 195 | Energy Transformation (evaporation) |
| 200 | Energy Transformation (food) |
| 205 | Energy Transformation (forms) |
| 210 | Energy Transformation (heat) |
| 215 | Energy Transformation (internal combustion) |
| 220 | Energy Transformation (kinetic) |
| 225 | Energy Transformation (light & sound) |
| 230 | Energy Transformation (liquid) |
| 235 | Energy Transformation (mass) |
| 240 | Energy Transformation (mixture) |
| 245 | Energy Transformation (molecular) |
| 250 | Energy Transformation (nuclear) |
| 255 | Energy Transformation (oxidation) |
| 260 | Energy Transformation (oxygen) |
| 265 | Energy Transformation (pressure) |
| 270 | Energy Transformation (solar) |
| 275 | Energy Transformation (substance) |
| 280 | Energy Transformation (volume) |
| 285 | Energy Transformation (water) |
| 290 | Erosion |
| 295 | Fish |
| 300 | Force and Motion |
| 305 | Fuels |
| 310 | Genetics |
| 315 | Geology |
| 320 | Human Body (behavior) |
| 325 | Human Body (circulatory) |
| 330 | Human Body (defense) |
| 335 | Human Body (diet) |
| 340 | Human Body (digestive) |
| 345 | Human Body (disease) |
| 350 | Human Body (ear) |

SCIENCE TOPIC SUMMARY SHEET (continued)

| <u>CODE</u> | <u>TOPIC</u> | <u>CODE</u> | |
|-------------|---------------------------------------|-------------|------|
| 355 | Human Body (exercise) | 530 | Pla |
| 360 | Human Body (eye) | 535 | Pla |
| 365 | Human Body (growth) | 540 | Pla |
| 370 | Human Body (health conditions) | 545 | Pla |
| 375 | Human Body (health & safety) | 550 | Pla |
| 380 | Human Body (life activities) | 555 | Pla |
| 385 | Human Body (muscular) | 560 | Pla |
| 390 | Human Body (nervous) | 565 | Pla |
| 395 | Human Body (nose) | 570 | Pla |
| 400 | Human Body (posture) | 575 | Pla |
| 405 | Human Body (reflex) | 580 | Pla |
| 410 | Human Body (respiratory) | 585 | Pla |
| 415 | Human Body (skeletal) | 590 | Pla |
| 420 | Human Body (skin, hair, teeth, nails) | 595 | Pol |
| 425 | Human Body (systems) | 600 | Pol |
| 430 | Human Body (temperature) | 605 | Rel |
| 435 | Human Body (tongue) | | |
| 440 | Human Body (water) | 610 | Rep |
| 445 | Insects | 615 | Rep |
| 450 | Interdependence | 620 | Sci |
| 455 | Light | 625 | Sol |
| 460 | Machines | 630 | Sol |
| 465 | Machines (complex) | 635 | Sol |
| 470 | Machines (simple) | 640 | Soun |
| 475 | Mammals | 645 | Syst |
| 480 | Magnets | 650 | Syst |
| 485 | Mealworms | 655 | Univ |
| 490 | Metals | 660 | Wate |
| 495 | Microorganisms | 665 | Weat |
| 500 | Microscope technique | 670 | Weat |
| 505 | Mollusks | 675 | Weat |
| 510 | Plants (adaptation) | 680 | Weat |
| 515 | Plants (bacteria) | 685 | Weat |
| 520 | Plants (bacteria & mold) | 690 | Weat |
| 525 | Plants (capillary action) | 695 | Weat |
| | | 700 | Weat |

| <u>CODE</u> | <u>TOPIC</u> |
|-------------|---|
| 530 | Plants (fertilization) |
| 535 | Plants (food chains) |
| 540 | Plants (gases) |
| 545 | Plants (growth) |
| 550 | Plants (hybrids) |
| 555 | Plants (molds) |
| 560 | Plants (needs) |
| 565 | Plants (nongreen) |
| 570 | Plants (parts) |
| 575 | Plants (roots) |
| 580 | Plants (seeds) |
| 585 | Plants (trees) |
| 590 | Plants (water) |
| 595 | Pollution (water) |
| 600 | Pollution (water & air) |
| 605 | Relative positions of stationary & moving objects) |
| 610 | Reproduction |
| 615 | Reptiles (extinct) |
| 620 | Scientific Method |
| 625 | Soil |
| 630 | Solar system |
| 635 | Solar System (stars) |
| 640 | Sound |
| 645 | Systems (Interactions) |
| 650 | Systems & subsystems |
| 655 | Universe |
| 660 | Water |
| 665 | Weather |
| 670 | Weather (clouds) |
| 675 | Weather (fronts) |
| 680 | Weather (precipitation) |
| 685 | Weather (prediction) |
| 690 | Weather (recording) |
| 695 | Weather (storms) |
| 700 | Weather (temperature) |

0200050

AMPHIBIANS

0200050001

KNOW THAT A TURTLE BEGAN ITS LIFE AS AN EGG, WHICH

HATCH

0200050002

DESCRIBE HOW A TURTLE BEGAN ITS LIFE AS AN EGG, WHICH

HATCH

0200050003

KNOW THE CHARACTERISTICS AND LIFE ACTIVITIES OF AQUATIC AND

AND

0200050004

DESCRIBE THE CHARACTERISTICS AND LIFE ACTIVITIES OF
EAT.

AQUATIC

0200060

BIRDS

0200060001

KNOW THAT A CHICKEN IS ONE KIND OF BIRD AND THAT ALL
AND ARE COVERED WITH FEATHERS.

BIRDS

0200060002

DESCRIBE THAT A CHICKEN IS ONE KIND OF BIRD AND THAT ALL BIRDS
EGGS AND THEY ARE COVERED WITH FEATHERS.

BIRDS

0200060003

KNOW THAT CHICKEN EGGS COME FROM THE HEN OR MOTHER
INTO ADULTS.

CHICKEN

0200060004

DESCRIBE THAT CHICKEN EGGS COME FROM THE HEN OR MOTHER
INTO ADULTS.

CHICKEN

0200060005

IDENTIFY PARTS OF THE EGG AS SHELL, MEMBRANE, WHITE AND

YOLK

0200060006

DESCRIBE A CHICKEN EGG, BY BREAKING ONE OPEN AND

OBSERVE

0200060007

KNOW THE PARTS OF A CHICKEN EGG.

0200075

CLASSIFY (ANIMALS)

0200075001

KNOW THAT DIFFERENT ANIMALS CAN BE ORDERED BY
AND AIR, MOVE, GROW, AND PRODUCE EGGS OR YOUNG.

CHARACTERISTICS

LIFE AS AN EGG, WHICH HATCHED INTO A SMALL TURTLE AND THEN GREW INTO AN ADULT.

ITS LIFE AS AN EGG, WHICH HATCHED INTO A SMALL TURTLE AND THEN GREW INTO AN ADULT.

LIFE ACTIVITIES OF AQUATIC AND LAND TURTLES.

AND LIFE ACTIVITIES OF AQUATIC AND LAND TURTLES, BY OBSERVING THEM MOVE AND

ND OF BIRD AND THAT ALL BIRDS ARE ALIKE IN TWO WAYS, ALL LAY HARD-SHELLED EGGS

E KIND OF BIRD AND THAT ALL BIRDS ARE ALIKE IN TWO WAYS, THEY ALL LAY HARD-SHELLED FEATHERS.

FROM THE HEN OR MOTHER CHICKEN, AND THAT EGGS HATCH INTO BABY CHICKS WHICH GROW

ME FROM THE HEN OR MOTHER CHICKEN, AND THAT EGGS HATCH INTO BABY CHICKS WHICH GROW

SHELL, MEMBRANE, WHITE AND YOLK.

EAKING ONE OPEN AND OBSERVING IT.

GG.



- 0200075002 ORDER VARIETY OF DIFFERENT ANIMALS INTO SETS AND SUBSETS ACCORDING HOW THEY GET FOOD AND AIR, MOVE, GROW, AND PRODUCE EGGS OR YOUNG.
- 0200080 CLASSIFY BY FIVE SENSES
- 0200080001 IDENTIFY THE SENSE OR SENSES USED IN EXAMINING A GIVEN OBJECT.
- 0200080002 KNOW THAT OBJECTS CAN BE IDENTIFIED BY SIZE, SHAPE, COLOR, TEXTURE, AND
- 0200080003 NAME A VARIETY OF OBJECTS, BY SIZE, SHAPE, COLOR, TEXTURE, AND
- 0200080004 IDENTIFY A VARIETY OF OBJECTS BY SIZE, SHAPE, COLOR, TEXTURE, AND
- 0200080005 KNOW THAT OBJECTS CAN BE ORDERED ACCORDING TO THEIR LIKENESSES
- 0200080006 ORDER A VARIETY OF OBJECTS ACCORDING TO THEIR LIKENESSES AND DIFFERENCES
- 0200080007 KNOW THAT OBJECTS CAN BE DISTINGUISHED ACCORDING TO COLORS.
- 0200080008 DISTINGUISH BETWEEN OBJECTS, ACCORDING TO THEIR COLORS.
- 0200080009 KNOW THAT OBJECTS CAN BE NAMED BY COLOR.
- 0200080010 KNOW THAT OBJECTS CAN BE IDENTIFIED BY COLORS.
- 0200080011 KNOW THAT OBJECTS CAN BE ORDERED BY COLORS.
- 0200080012 ORDER OBJECTS BY THEIR COLORS.

INTO SETS AND SUBSETS ACCORDING TO CHARACTERISTICS AND TO LIFE ACTIVITIES OF
GROW, AND PRODUCE EGGS OR YOUNG.

IN EXAMINING A GIVEN OBJECT.

BY SIZE, SHAPE, COLOR, TEXTURE, AND MATERIAL.

SHAPE, COLOR, TEXTURE, AND MATERIAL.

SIZE, SHAPE, COLOR, TEXTURE, AND MATERIAL.

ACCORDING TO THEIR LIKENESSES AND DIFFERENCES.

ING TO THEIR LIKENESSES AND DIFFERENCES.

ISHED ACCORDING TO COLORS.

ING TO THEIR COLORS.

COLOR.

BY COLORS.

COLORS.

- 0200080013 CLASSIFY OBJECTS BY COLOR.
- 0200080014 NAME OBJECTS BY COLORS, AS RED, BLUE, YELLOW, AND GREEN.
- 0200080015 IDENTIFY OBJECTS BY COLORS, AS RED, BLUE, YELLOW, AND GREEN.
- 0200080016 NAME THE PRIMARY COLORS.
- 0200080017 IDENTIFY THE SECONDARY COLOR RESULTING FROM THE COMBI
- 0200080018 CLASSIFY CIRCLES, TRIANGLES, SQUARES, AND RECTANGLES BY SHAPE
- 0200080019 KNOW THAT OBJECTS CAN BE IDENTIFIED BY THE SOUND THEY MAKE.
- 0200080020 KNOW THAT OBJECTS CAN BE DISTINGUISHED BY SIMILAR SOUND
- 0200080021 RECOGNIZE OBJECTS THAT MAKE SOUNDS THAT YOU CAN HEAR.
- 0200080022 IDENTIFY OBJECTS BY THE SOUND THEY MAKE.
- 0200080023 DESCRIBE OBJECTS BY THE SOUND THEY MAKE.
- 0200080024 DISTINGUISH BETWEEN OBJECTS THAT GIVE A SIMILAR SOUND.
- 0200080025 GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE WHICH
- 0200080026 GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE WHICH

BLUE, YELLOW, AND GREEN.

RED, BLUE, YELLOW, AND GREEN.

RESULTING FROM THE COMBINATION OF TWO PRIMARY COLORS.

SQUARES, AND RECTANGLES BY SHAPE.

IDENTIFIED BY THE SOUND THEY MAKE.

DISTINGUISHED BY SIMILAR SOUNDS.

SOUNDS THAT YOU CAN HEAR.

THEY MAKE.

THEY MAKE.

WHAT GIVE A SIMILAR SOUND.

FOR OTHER SOUND, RECOGNIZE WHICH SOUND IS LOUDER.

FOR OTHER SOUND, RECOGNIZE WHICH SOUND IS MORE PLEASANT.

0200080027 CLASSIFY OBJECTS BY THE SOUNDS THEY MAKE.

0200080028 KNOW THAT OBJECTS CAN BE DISTINGUISHED BY TEXTURE, TOUCH,

0200080029 DISTINGUISH BETWEEN OBJECTS OF SIMILAR TEXTURE, BY TOUCH A

0200080030 KNOW THAT TEXTURES CAN BE DESCRIBED BY TOUCH.

0200080031 DESCRIBE THE TEXTURES OF A VARIETY OF OBJECTS BY TOUCHIN

0200080032 AFTER TOUCHING AN OBJECT, DESCRIBE ITS TEXTURE.

0200080033 RECOGNIZE A CIRCLE, A SQUARE, A TRIANGLE, AND A RECTANG

0200080034 KNOW THAT OBJECTS CAN BE DISTINGUISHED BY THEIR WEIGHT.

0200080035 IDENTIFY HEAVIER OF TWO OBJECTS WHEN THEY ARE PLACED ONE IN

0200080036 KNOW THAT SUBSTANCES CAN BE IDENTIFIED BY ODOR AND TASTE.

0200080037 DESCRIBE SUBSTANCES BY ODOR AND TASTE, WHILE BLINDFO

0200080038 IDENTIFY SUBSTANCES BY ODOR AND TASTE, WHILE BLINDFO

0200080039 GIVEN OBJECTS THAT LOOK ALIKE BUT SMELL OR TASTE DIFFERE

0200080040 GIVEN VARIOUS FOODS TO TASTE, CLASSIFY THEIR TASTES AS SALTY,

TAKE.

D BY TEXTURE, TOUCH, AND BY TASTE.

R TEXTURE, BY TOUCH AND BY TASTE.

Y TOUCH.

OBJECTS BY TOUCHING THEM, WHILE BLINDFOLDED.

S TEXTURE.

GLE, AND A RECTANGLE BY USING THE SENSE OF TOUCH.

D BY THEIR WEIGHT.

THEY ARE PLACED ONE IN EACH HAND.

D BY ODOR AND TASTE.

, WHILE BLINDFOLDED.

, WHILE BLINDFOLDED.

LL OR TASTE DIFFERENT, RECOGNIZE WHETHER THEY SMELL OR TASTE

Y THFIR TASTES AS SALTY, SOUR, SWEET, OR BITTER.

0200085 CLASSIFY BY KIND, FORM, AND PROPERTIES

0200085001 KNOW THAT OBJECTS THAT HAVE SIMILAR SIZE, BUT DIFFER IN WEIGHT

0200085002 KNOW THAT OBJECTS CAN BE DESCRIBED ACCORDING TO WEIGHT ON A SCALE

0200085003 DESCRIBE SOME PROPERTIES OF A GIVEN OBJECT, (COLOR, MAGNETISM)

0200085004 DISTINGUISH BETWEEN TWO OBJECTS, ACCORDING TO THEIR WEIGHT

0200085005 DESCRIBE OBJECTS ACCORDING TO THEIR WEIGHT ON A SCALE OR SPRING

0200085006 DISTINGUISH BETWEEN OBJECTS THAT HAVE SIMILAR SIZE, BUT DIFFER IN WEIGHT

0200085007 KNOW THAT OBJECTS THAT WILL FLOAT AND NOT FLOAT CAN BE DISTINGUISHED

0200085008 DISTINGUISH BETWEEN OBJECTS THAT WILL FLOAT AND NOT FLOAT

0200085009 KNOW THAT A SCALE WORKS BY CAUSING THE INDICATOR TO MOVE

0200085010 RECOGNIZE HEAVIER OF TWO OBJECTS WHEN THEY ARE PLACED ON A SCALE

0200085011 DEMONSTRATE HOW A SCALE WORKS, BY WEIGHING OBJECTS, CAUSING THE INDICATOR TO MOVE

0200085012 GIVEN STANDARD UNIT OF WEIGHT AND A SOLID OBJECT, PREDICT THE WEIGHT

0200095 CLASSIFY (PLANTS)

0200095001 KNOW THAT PLANTS ARE DIFFERENT, ALTHOUGH THEY HAVE SIMILAR PROPERTIES

PROPERTIES

PAGE 5

SIMILAR SIZE, BUT DIFFER IN WEIGHT, CAN BE DISTINGUISHED BY USING A SCALE.

DESCRIBED ACCORDING TO WEIGHT ON A SCALE OR SPRING BALANCE.

FOR GIVEN OBJECT. (COLOR, MAGNETISM, WEIGHT, MATERIAL, SHAPE, TEXTURE).

OBJECTS, ACCORDING TO THEIR WEIGHT.

MEASURING THEIR WEIGHT ON A SCALE OR SPRING BALANCE.

OBJECTS THAT HAVE SIMILAR SIZE, BUT DIFFER IN WEIGHT, BY USING A SCALE.

OBJECTS THAT FLOAT AND NOT FLOAT CAN BE DISTINGUISHED, BY PLACING THEM IN WATER.

OBJECTS THAT WILL FLOAT AND NOT FLOAT, BY PLACING THEM IN WATER.

MOVING USING THE INDICATOR TO MOVE FARTHER WITH HEAVIER OBJECTS.

OBJECTS WHEN THEY ARE PLACED ONE IN EACH PAN OF EQUAL-ARM BALANCE.

MOVING, BY WEIGHING OBJECTS, CAUSING THE INDICATOR TO MOVE FARTHER WITH HEAVIER

OBJECTS AND A SOLID OBJECT, PREDICT HOW MUCH OBJECT WOULD WEIGH IN STANDARD UNITS.

ACTIVITIES, ALTHOUGH THEY HAVE SIMILAR LIFE ACTIVITIES.

- 0200095002 DESCRIBE THAT PLANTS DIFFER, BY OBSERVING DIFFERENT CHARACTERISTICS, THOUGH SIMILAR LIFE ACTIVITIES. PLANTS, AND
- 0200295 FISH
- 0200295001 KNOW THAT A FISH BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO A TINY
- 0200295002 DESCRIBE HOW A FISH BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO ADULT.
- 0200295003 KNOW HOW A FISH MOVES, GETS AIR, AND EATS.
- 0200295004 DESCRIBE HOW A FISH MOVES, GETS AIR, AND EATS, BY OBSERVING A
- 0200295005 IDENTIFY THE PARTS OF THE FISH AS TAIL, FINS, GILLS, AND SCALES.
- 0200300 FORCE AND MOTION
- 0200300001 KNOW THAT PUSHES AND/OR PULLS ARE FORCES.
- 0200300002 DEMONSTRATE THAT A PUSH OR PULL IS NEEDED TO MAKE THINGS MOVE, BY MOV
- 0200300003 NAME PUSHES AND PULLS AS FORCES.
- 0200300004 KNOW THAT A FORCE IS NEEDED TO STOP AN OBJECT THAT IS MOVING.
- 0200300005 KNOW THAT A FORCE IS NEEDED TO CHANGE THE DIRECTION OF A MOTION.
- 0200300006 DEMONSTRATE THAT A FORCE IS NEEDED TO CHANGE THE DIRECTION OF OBSTACLES, CAUSING THEM TO BE DEFLECTED.

BY OBSERVING DIFFERENT
SIMILAR LIFE ACTIVITIES.

PLANTS, AND BY DISCUSSING THAT THEY HAVE DIFFERENT

LIFE AS AN EGG, WHICH HATCHED INTO A TINY FISH AND THEN GREW TO BECOME AN ADULT.

ITS LIFE AS AN EGG, WHICH HATCHED INTO A TINY FISH AND THEN GREW TO BECOME AN

S AIR, AND EATS.

GETS AIR, AND EATS, BY OBSERVING A GOLDFISH IN AN AQUARIUM.

FISH AS TAIL, FINS, GILLS, AND SCALES.

LLS ARE FORCES.

PULL IS NEEDED TO MAKE THINGS MOVE, BY MOVING VARIOUS OBJECTS.

ORCES.

D TO STOP AN OBJECT THAT IS MOVING.

D TO CHANGE THE DIRECTION OF A MOTION.

S D TO CHANGE THE DIRECTION OF A MOTION, BY ROLLING OBJECTS AGAINST
LECTED.

0200300007 KNOW THAT A PUSH OR PULL IS NEEDED TO MAKE THINGS MOVE, BY MO
0200300008 NAME THE FORCE THAT CAUSES FALLING THINGS TO FALL TOWAR
0200300009 KNOW THAT THE FORCE THAT CAUSES FALLING THINGS TO FALL TOWAR
0200300010 KNOW THAT AS THINGS ARE DROPPED THEY FALL TOWARD THE EARTH
0200300011 DEMONSTRATE THAT AS THINGS ARE DROPPED THEY FALL TOWARD THE E
0200300012 KNOW THAT GRAVITY MAKES THINGS GO FASTER AND FASTER.
0200300013 DEMONSTRATE THAT GRAVITY MAKES THINGS GO FASTER, BY ROLLI
POINTS ON BOARD, OR BY RAISING AND LOWERING BOARD MARKI
0200300014 KNOW THAT THE PULL THAT CAUSES FALLING THINGS TO FALL TOWAR
0200300015 DESCRIBE THE PULL THAT CAUSES FALLING THINGS TO FALL TOWAR
0200300016 KNOW THAT IN ORDER TO LIFT AN OBJECT, THE NET FORCE MUST BE GR
0200300017 DESCRIBE THAT A FORCE IS NEEDED TO STOP AN OBJECT THAT IS MO
BEEN MOVED WILL COME TO A STOP.
0200300018 KNOW THAT THE FORCE THAT STOPS MOVING OBJECTS IS FRICT
0200300019 DEMONSTRATE THAT FRICTION STOPS ROLLING AND SLIDING OBJEC
BOARD CAUSING SLIDING OBJECTS TO STOP MORE QUICKLY.
0200300020 KNOW THAT FRICTION STOPS ROLLING AND SLIDING OBJECTS.

NEEDED TO MAKE THINGS MOVE, BY MOVING VARIOUS OBJECTS.

FALLING THINGS TO FALL TOWARD THE EARTH AS GRAVITY.

CAUSES FALLING THINGS TO FALL TOWARD THE EARTH IS GRAVITY.

CAUSE THEM TO FALL TOWARD THE EARTH.

WHEN THEY ARE DROPPED THEY FALL TOWARD THE EARTH.

OBJECTS GO FASTER AND FASTER.

HOW DO THINGS GO FASTER, BY ROLLING OBJECTS DOWN SMOOTH BOARD, STARTING AT DIFFERENT MARKING WHERE OBJECTS STOP.

CAUSE FALLING THINGS TO FALL TOWARD THE EARTH IS A FORCE.

CAUSE FALLING THINGS TO FALL TOWARD THE EARTH AS A FORCE.

FOR AN OBJECT, THE NET FORCE MUST BE GREATER THAN THE FORCE OF GRAVITY.

HOW TO STOP AN OBJECT THAT IS MOVING, BY OBSERVING THAT ROLLING OBJECTS THAT HAVE STOPPED.

THE FORCE THAT OPPOSES MOVING OBJECTS IS FRICTION.

HOW TO STOP ROLLING AND SLIDING OBJECTS, BY ROLLING AND SLIDING DIFFERENT OBJECTS DOWN A

SMOOTH AND SLIDING SURFACES.

- 0200300021 NAME THE FORCE THAT STOPS MOVING OBJECTS AS FRICTION.
- 0200300022 DEMONSTRATE THE FUNCTION OF A LEVER AND FULCRUM, BY USING A SIMPL
DIRECTION OF FORCE BEING USED BY HIM.
- 0200300023 KNOW THAT IT IS EASIER TO LIFT SOMETHING WITH A LEVER OR SEESAW WHEN T
- 0200300024 DEMONSTRATE THAT IT IS EASIER TO LIFT SOMETHING WITH A LEVER OR SEES
- 0200300025 DEMONSTRATE THAT LIFTING OBJECTS IS THE USING OF A FORCE IN THE DIRECT
OBJECTS REQUIRE MORE FORCE TO LIFT THEM.
- 0200300026 KNOW THE FUNCTION OF A LEVER AND FULCRUM.
- 0200300027 KNOW THAT HEAVIER OBJECTS ARE THOSE THAT NEED MORE FORCE TO MOVE
- 0200300028 DESCRIBE HEAVIER OBJECTS AS THOSE THAT NEED MORE FORCE TO MOVE THEM.
- 0200300029 DESCRIBE THAT, IN ORDER TO LIFT AN OBJECT, THE NET FORCE MUST BE GREAT
- 0200380 HUMAN BODY (LIFE ACTIVITIES)
- 0200380001 KNOW THAT HUMAN LIFE ACTIVITIES ARE COMMON WITH ALL LIVING THINGS
- 0200380002 DESCRIBE HIS OWN LIFE ACTIVITIES, IN COMMON WITH ALL LIVING THINGS
HIS OWN ACTIVITIES WITH OTHER LIVING THINGS STUDIED.
- 0200445 INSECTS
- 0200445001 KNOW THAT A MOTH IS ONE KIND OF INSECT, AND THAT ALL INSECTS HAVE
SKELETON.

0200445002 DESCRIBE THAT A MOTH IS ONE KIND OF INSECT, AND THAT ALL INSECTS HAVE SKELETON.

0200445003 KNOW THAT THE CATERPILLAR HATCHED FROM TINY EGGS PRODUCED BY

0200445004 DESCRIBE HOW THE CATERPILLAR HATCHED FROM TINY EGGS PRODUCED BY

0200445005 DESCRIBE THE LIFE CYCLE OF A MOTH, BY OBSERVING LIVE CATERPILLAR CHANGE INTO ADULTS.

0200445006 KNOW THE LIFE CYCLE OF A MOTH.

0200450 INTERDEPENDENCE

0200450001 KNOW THE VARIETY OF PLANT AND ANIMAL MATERIALS IN THE SAME ENVIRONMENT

0200450002 KNOW THAT PLANTS AND ANIMALS SHARE A COMMON ENVIRONMENT FROM WHICH THEY GROW.

0200450003 KNOW PLANT-ANIMAL RELATIONSHIPS AND THEIR DEPENDENCE

0200450004 DESCRIBE HOW PLANTS AND ANIMALS SHARE A COMMON ENVIRONMENT LIVE AND GROW.

0200450005 DEMONSTRATE THE VARIETY OF PLANT AND ANIMAL MATERIALS IN THE SAME ENVIRONMENT NEIGHBORHOOD AREA.

0200450006 DESCRIBE PLANT-ANIMAL RELATIONSHIPS AND THEIR DEPENDENCE ON MAN, BY

0200475 MAMMALS

0200475001 KNOW THE CHARACTERISTICS AND LIFE ACTIVITIES OF MAMMALS.

D OF INSECT, AND THAT ALL INSECTS HAVE SIX LEGS, USUALLY WINGS, AND AN OUTSIDE

ED FROM TINY EGGS PRODUCED BY THE ADULT MOTH.

TCHED FROM TINY EGGS PRODUCED BY THE ADULT MOTH.

TH, BY OBSERVING LIVE CATERPILLARS AS THEY MOVE, FEED, SPIN COCOONS, AND

NIMAL MATERIALS IN THE SAME ENVIRONMENT.

ARE A COMMON ENVIRONMENT FROM WHICH THEY GET THE THINGS THEY NEED TO LIVE AND

AND THEIR DEPENDENCE ON MAN.

SHARE A COMMON ENVIRONMENT FROM WHICH THEY GET THE THINGS THEY NEED TO

T AND ANIMAL MATERIALS IN THE SAME ENVIRONMENT, BY COLLECTING MATERIALS FROM THE

HIPS AND THEIR DEPENDENCE ON MAN, BY VISITING AND OBSERVING LIFE ON A FARM.

0200475002 KNOW THAT THE MOTHER MAMMAL HAS BABIES, WHICH SHE WILL TAKE CARE OF
THEIR OWN TO BECOME ADULTS.

0200475003 DESCRIBE HOW THE MOTHER MAMMAL HAS BABIES, WHICH SHE WILL TAKE CARE
ON THEIR OWN TO BECOME ADULTS.

0200475004 DESCRIBE THE CHARACTERISTICS AND LIFE ACTIVITIES OF MAMMALS, SUCH
THEM MOVE, EAT, CONSTRUCT NESTS, AND RAISE YOUNG.

0200480 MAGNETS

0200480001 DEMONSTRATE THE PUSHING AND PULLING FORCE OF A MAGNET, BY USING A MA
OBJECTS.

0200480002 KNOW THE PUSHING AND PULLING FORCE OF A MAGNET, BY USING A MAGNET

0200480003 KNOW THAT ONE BAR MAGNET EFFECTS ANOTHER BY CAUSING LIKE ENDS TO REPEL

0200480004 DEMONSTRATE THE EFFECT OF ONE BAR MAGNET UPON ANOTHER, BY CAUSING LI
ATTRACT.

0200480005 KNOW THAT BAR MAGNETS ARE STRONGER ON THE ENDS THAN IN THE MIDDLE.

0200480006 DEMONSTRATE THAT BAR MAGNETS ARE STRONGER ON THE ENDS THAN IN THE M
PLACES ON THE MAGNET.

0200480007 KNOW THAT SOME OBJECTS ARE AFFECTED BY THE MAGNET AND OTHERS ARE NO

0200480008 DISTINGUISH BETWEEN OBJECTS THAT CAN AND CANNOT BE MOVED BY THE MAGNET
NOT AFFECTED BY THE MAGNET.

200505

MOLLUSKS

200505001

KNOW THAT A SNAIL BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO

BABIES, WHICH SHE WILL TAKE CARE OF FOR A WHILE UNTIL THE BABIES CAN GROW ON
 S BABIES, WHICH SHE WILL TAKE CARE OF FOR A WHILE UNTIL THE BABIES CAN GROW
 LIFE ACTIVITIES OF MAMMALS, SUCH AS WHITE RATS OR GUINEA PIGS, BY OBSERVING
 AND RAISE YOUNG.

NG FORCE OF A MAGNET, BY USING A MAGNET TO LIFT AND MOVE VARIOUS METAL
 E OF A MAGNET, BY USING A MAGNET TO LIFT AND MOVE VARIOUS METAL OBJECTS.

ANOTHER BY CAUSING LIKE ENDS TO REPEL AND UNLIKE ENDS TO ATTRACT,

MAGNET UPON ANOTHER, BY CAUSING LIKE ENDS TO REPEL AND UNLIKE ENDS TO

R ON THE ENDS THAN IN THE MIDDLE.

STRONGER ON THE ENDS THAN IN THE MIDDLE, BY LIFTING PAPER CLIPS AT DIFFERENT

ED BY THE MAGNET AND OTHERS ARE NOT.

CAN AND CANNOT BE MOVED BY THE MAGNET, BY USING VARIOUS KINDS OF OBJECTS, SOME

- 0200505002 DESCRIBE THAT A SNAIL BEGAN ITS LIFE AS AN EGG, WHICH HATCH
- 0200505003 KNOW THE CHARACTERISTICS AND LIFE ACTIVITIES OF AQUATIC AND
- 0200505004 DESCRIBE THE CHARACTERISTICS AND LIFE ACTIVITIES OF AQUA
EAT.
- 0200570 PLANTS (PARTS)
- 0200570001 KNOW THE PARTS OF A PLANT AS ROOT, STEM, LEAF, FLOWER, AND S
- 0200570002 IDENTIFY PARTS OF THE PLANT AS ROOT, STEM LEAF, FLOWER, AND S
- 0200580 PLANTS (SEEDS)
- 0200580001 KNOW THAT AN ASSORTMENT OF BEAN SEEDS CAN BE ORDERED ACCOR
- 0200580002 ORDER AN ASSORTMENT OF BEAN SEEDS ACCORDING TO THEIR LIKEN
- 0200580003 KNOW THAT BEAN SEEDS WILL SPROUT AND EXHIBIT DIFFERENCES IN TH
- 0200580004 KNOW DIFFERENT WAYS TO SPROUT SEEDS, BY PLACING SOME ON A MOI
SOME IN SOIL, AND SOME IN WATER.
- 0200580005 DEMONSTRATE DIFFERENT WAYS TO SPROUT SEEDS, BY PLACING SOME
GLASS, SOME IN SOIL, AND SOME IN WATER.
- 0200580006 DEMONSTRATE THAT BEAN SEEDS WILL SPROUT AND EXHIBIT DIFFE
OF SEEDS AND OBSERVING THEIR GROWTH.
- 0200580007 KNOW THAT WHEN SEEDS ARE PLANTED, THEY WILL SPROUT AND GROW

BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO A TINY SNAIL AND THEN GREW INTO AN ADULT.

AND LIFE ACTIVITIES OF AQUATIC AND GARDEN SNAILS.

ACTIVITIES AND LIFE ACTIVITIES OF AQUATIC AND GARDEN SNAILS, BY OBSERVING THEM MOVE AND

PLANT AS ROOT, STEM, LEAF, FLOWER, AND SEED.

PLANT AS ROOT, STEM LEAF, FLOWER, AND SEED.

OF BEAN SEEDS CAN BE ORDERED ACCORDING BY LIKENESSES OR DIFFERENCES.

BEAN SEEDS ACCORDING TO THEIR LIKENESSES OR DIFFERENCES.

PLANT SPROUT AND EXHIBIT DIFFERENCES IN THEIR SPROUTS.

PLANT SPROUT SEEDS, BY PLACING SOME ON A MOIST SPONGE, SOME BETWEEN BLOT- TING PAPER AND GLASS, AND SOME IN WATER.

WAYS TO SPROUT SEEDS, BY PLACING SOME ON A MOIST SPONGE, SOME BETWEEN BLOTTING PAPER AND SOME IN WATER.

BEAN SEEDS WILL SPROUT AND EXHIBIT DIFFERENCES IN THEIR SPROUTS, BY PLANTING VARIOUS KINDS OF BEAN SEEDS.

BEAN SEEDS, THEY WILL SPROUT AND GROW INTO THE SAME KIND OF PLANT FROM WHICH THEY CAME.

- 020058008 DESCRIBE THAT WHEN SEEDS ARE PLANTED THEY WILL SPROUT AND GROW IN
CAME.
- 020058009 DESCRIBE A GROWING SEED PLANT BY OBSERVING A COMPLETE DANDELION P
- 0200585 PLANTS (TREES)
- 0200585001 KNOW THAT TREES HAVE SIMILARITIES WITH, AND DIFFERENCES FROM OTHER
- 0200585002 DESCRIBE THAT TREES HAVE SIMILARITIES WITH, AND DIFFERENCES
OF SEEDS, FRUITS, AND OTHER TREE PARTS.
- 0200590 PLANTS (WATER)
- 0200590001 KNOW THAT SOME PLANTS GROW IN WATER.
- 0200590002 DESCRIBE THAT SOME PLANTS GROW IN WATER, BY OBSERVING AQUARIUM PL
AND SIMILARITIES WITH, AND DIFFERENCES FROM, OTHER PLANTS.
- 0200590003 KNOW THAT SEAWEEDS DIFFER FROM OTHER PLANTS IN THAT THEY LACK ROOTS,
SPECIAL PLANT CLASS (ALGAE).
- 0200590004 DESCRIBE THAT SEAWEEDS DIFFER FROM OTHER PLANTS IN THAT THAT THEY L
BELONG TO A SPEICAL PLANT CLASS (ALGAE).
- 0200615 REPTILES (EXTINCT)
- 0200615001 KNOW THAT DINOSAURS ARE NO LONGER IN EXISTENCE, BUT ARE SIMILAR TO
- 0200615002 DESCRIBE DINOSAURS BY OBSERVING PICTURES OR MODELS AND DISCUSSING
PRESENT DAY REPTILES.

NTED THEY WILL SPROUT AND GROW INTO THE SAME KIND OF PLANT FROM WHICH THEY
OBSERVING A COMPLETE DANDELION PLANT, AND DISCUSSING PARTS OF THE PLANT,

S WITH, AND DIFFERENCES FROM OTHER PLANTS.

ITIES WITH, AND DIFFERENCES FROM OTHER PLANTS, BY OBSERVING A COLLECTION
PARTS.

TER.

N WATER, BY OBSERVING AQUARIUM PLANTS AND BY DISCUSSING THE PARTS OF PLANTS
RENCES FROM, OTHER PLANTS.

OTHER PLANTS IN THAT THEY LACK ROOTS, STEMS, LEAVES, AND FLOWERS, AND BELONG TO A

OM OTHER PLANTS IN THAT. THAT THEY LACK ROOTS, STEMS, LEAVES AND FLOWERS, AND
(ALGAE).

R IN EXISTENCE, BUT ARE SIMILAR TO PRESENT DAY REPTILES.

PI S OR MODELS AND DISCUSSING THAT THEY NO LONGER EXIST, BUT ARE SIMILAR TO

- 0201055 ANIMALS
- 0201055001 IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS: HOW THEY EAT.
- 0201055002 IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS: HOW THEY GROW.
- 0201055003 IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS: HOW THEY CHANGE.
- 0201055004 IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS: HOW THEY MOVE BY
- 0201055005 IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS: HOW THEY REPRODUCE.
- 0201055006 KEEP AN ACCURATE RECORD OF GROWTH CHANGES OF AN ANIMAL YOU HAVE.
- 0201055007 KNOW THAT ANIMALS MAY BE PRESERVED IN ICE FOR LONG PERIODS.
- 0201055008 DEMONSTRATE THAT ANIMALS MAY BE PRESERVED IN ICE, BY PLACING
THEN ADDING WATER TO ENCLOSE THE DEAD INSECT WITHIN ICE.
- 0201055009 DESCRIBE THAT ANIMALS MAY BE PRESERVED IN ICE FOR LONG PERIODS
REMAIN OVER A LONG PERIOD OF TIME.
- 0201075 CLASSIFY (ANIMALS)
- 0201075001 LIST BASIC CHARACTERISTIC OF EACH ANIMAL GROUP.
- 0201075002 CLASSIFY ANIMALS ACCORDING TO HABITATS, SKIN COVERING, THE WAY
- 0201075003 GIVEN A LIST OF PICTURES OF 30 DIFFERENT ANIMALS CLASSIFY

PROPERTIES OF ANIMALS: HOW THEY EAT.

PROPERTIES OF ANIMALS: HOW THEY GROW.

PROPERTIES OF ANIMALS: HOW THEY CHANGE.

PROPERTIES OF ANIMALS: HOW THEY MOVE BY THEMSELVES.

PROPERTIES OF ANIMALS: HOW THEY REPRODUCE.

GROWTH CHANGES OF AN ANIMAL YOU HAVE OBSERVED.

PRESERVED IN ICE FOR LONG PERIODS.

HOW TO BE PRESERVED IN ICE, BY PLACING A DEAD INSECT IN WATER, LETTING IT FREEZE,
AND OBSERVING THE DEAD INSECT WITHIN ICE.

HOW TO BE PRESERVED IN ICE FOR LONG PERIODS, BY OBSERVING THAT THE INSECT FROZEN IN ICE WILL
SURVIVE FOR A LONG TIME.

CHARACTERISTICS OF EACH ANIMAL GROUP.

CHARACTERISTICS OF HABITATS, SKIN COVERING, THE WAY THE ANIMAL MOVES, AND/OR THE NUMBER OF LEGS.

CLASSIFY 30 DIFFERENT ANIMALS IN CORRECT ANIMAL GROUP.

0201080 CLASSIFY BY FIVE SENSES .

0201080001 NAME THE PRIMARY COLORS.

0201080002 RECOGNIZE OBJECTS THAT ARE THE PRIMARY COLORS.

0201080003 IDENTIFY THE SECONDARY COLOR RESULTING FROM THE COMBINATION

0201080004 CLASSIFY OBJECT BY COLOR.

0201080005 CLASSIFY BIRCH, WALNUT, AND OAK WOODS BY KIND.

0201080006 IDENTIFY OBJECTS MADE OF MORE THAN ONE MATERIAL.

0201080007 DESCRIBE SOME PROPERTIES OF A GIVEN METAL.

0201080008 CLASSIFY OBJECTS BY TEXTURE.

0201080009 RECOGNIZE THE ROCK AND POWDER FORMS OF A GIVEN KIND OF ROCK.

0201080010 CLASSIFY ROCKS BY SIZE, COLOR, KIND, HARDNESS, AND WEIGHT.

0201080011 RECOGNIZE A CIRCLE, A SQUARE, A TRIANGLE, AND A RECTANGLE BY

0201080012 CLASSIFY CIRCLES, TRIANGLES, SQUARES, AND RECTANGLES BY SHAPE.

0201080013 DESCRIBE THE SHAPE AND TEXTURE OF UNSEEN OBJECTS BY USING THE SE

0201080014 AFTER TOUCHING AN OBJECT, DESCRIBE ITS TEXTURE.

Y COLORS.

G FROM THE COMBINATION OF TWO PRIMARY COLORS.

BY KIND.

E MATERIAL.

ETAL.

F A GIVEN KIND OF ROCK.

HARDNESS, AND WEIGHT.

GLE, AND A RECTANGLE BY USING THE SENSE OF TOUCH.

AND RECTANGLES BY SHAPE.

EEN OBJECTS BY USING THE SENSE OF TOUCH.

S TEXTURE.

- 0201080015 GIVEN VARIOUS FOODS TO TASTE, CLASSIFY THEIR TASTES AS SAL
- 0201080016 GIVEN OBJECTS THAT LOOK ALIKE BUT SMELL OR TASTE- DIFFERENT. DIF
- 0201080017 IDENTIFY THE SENSE OR SENSES USED IN EXAMINING A GIVEN OBJ. OB.
- 0201080018 DESCRIBE THE PROPERTIES OF A GIVEN OBJECT.
- 0201080019 DESCRIBE THE TEXTURE, SIZE, COLOR, SHAPE, AND REF
- 0201080020 CLASSIFY WOOD, METAL, AND PLASTIC OBJECTS BY MATERIAL.
- 0201080021 CLASSIFY OBJECTS BY SIZE. (USE ONLY THE SENSE OF TOL
- 0201080022 CLASSIFY OBJECTS BY TEMPERATURE USING THE SENSE OF TOL
- 0201080023 CLASSIFY GIVEN OBJECTS BY SMELL.
- 0201080024 CLASSIFY GIVEN OBJECTS BY TASTE.
- 0201080025 RECOGNIZE THE CHIPS, SAWDUST, AND SHAVINGS OF A GIVEN KIN
- 0201080026 CLASSIFY STEEL, LEAD, BRASE, AND ALUMINUM OBJECTS PY KIN
- 0201080027 CLASSIFY LIQUIDS BY DENSITY AND OPAQUENESS.
- 0201080028 IDENTIFY THE LIQUID AND ICE FORMS OF WATER.

SIFY THEIR TASTES AS SALTY, SOUR, SWEET, OR BITTER.

SMELL OR TASTE DIFFERENT, RECOGNIZE WHETHER THEY SMELL OR TASTE

IN EXAMINING A GIVEN OBJECT.

OBJECT.

SHAPE, AND REFLECTANCE OF A GIVEN OBJECT.

OBJECTS BY MATERIAL:

LY THE SENSE OF TOUCH).

ING THE SENSE OF TOUCH. (WARM, HOT, COLD).

SHAVINGS OF A GIVEN KIND OF WOOD.

ALUMINUM OBJECTS BY KIND.

PAQUENESS.

OF WATER.

0201080029 WHEN GIVEN AN OBJECT, EXAMINE AND DESCRIBE ORALLY THE CRITERIA: SHAPE, COLOR, TEXTURE. (OBJE

0201080030 GIVEN A LIST OF TWENTY-FIVE DESCRIPTIVE ADJECTIVES AND A LIST (TEXTURE), MATCH AT LEAST FIVE OF THE ADJECTIVES WITH EACH

0201080031 CLASSIFY A GROUP OF OBJECTS IN MORE THAN ONE WAY. (TEX

0201085 CLASSIFY BY KIND, FORM, AND PROPERTIES

0201085001 IDENTIFY THE EVIDENCE OF AIR AS AN OBJECT.

0201085002 TELL AFTER OBSERVATION WHETHER A GIVEN OBJECT FLOATS OR SINK

0201085003 CLASSIFY OBJECTS BY TEMPERATURE USING A THERMOMETER.

0201085004 CLASSIFY OBJECTS BY WEIGHT.

0201115 ECOLOGY

0201115001 AFTER VIEWING A PICTURE SHOWING AREA OF NATURAL CONSERVATION PRACTICES. (RESO

0201195 ENERGY TRANSFORMATION (EVAPORATION)

0201195001 KNOW THAT HEAT FROM THE SUN HELPS TO CHANGE WATER TO WATE

0201195002 DEMONSTRATE EVAPORATION, BY PLACING DROPS OF WATER INTO AN O ONE DAY.

AND DESCRIBE ORALLY THE OBJECT IN TERMS OF AT LEAST THREE OF THE FOLLOWING
TURE.

DESCRIPTIVE ADJECTIVES AND A LIST OF FOUR SCIENTIFIC PROPERTIES (SHAPE, COLOR, ODOR,
OF THE ADJECTIVES WITH EACH SCIENTIFIC PROPERTY,

IN MORE THAN ONE WAY, (TEXTURE, SIZE, COLOR, SHAPE, REFLECTANCE).

PROPERTIES

AS AN OBJECT.

OR A GIVEN OBJECT FLOATS OR SINKS IN WATER.

ORE USING A THERMOMETER.

ING AREA OF NATURAL RESOURCES WASTED OR DESTROYED, LIST FOUR POOR

RATION)

HELPS TO CHANGE WATER TO WATER VAPOR WHICH GOES INTO THE AIR.

PL... DROPS OF WATER INTO AN OPEN GLASS AND OBSERVING THE CHANGE IN QUANTITY AFTER

0201195003 DEMONSTRATE THAT HEAT FROM THE SUN HELPS TO CHANGE WATER TO WATER
GLASS OF WATER IN SUNLIGHT AND AN EQUAL GLASS OF WATER IN A DARK

0201300 FORCE AND MOTION

0201300001 KNOW THAT THE UPWARD PUSH OF A RELEASED BALLOON IS CAUSED BY

0201300002 DEMONSTRATE A MODEL OF A ROCKET BY BLOWING UP A BALLOON AND LETTING IT

0201300003 DESCRIBE THAT THE UPWARD PUSH IS CAUSED BY THE AIR RUSHING DOWN

0201300004 DEMONSTRATE FRICTION BY PULLING A ROLLER SKATE WITH A RUBBER BAND
WHEN THE SKATE IS DRAGGED ON ITS SIDE THAN WHEN IT IS PULLED

0201350 HUMAN BODY (EAR)

0201350001 IDENTIFY THE FUNCTION OF THE EAR.

0201360 HUMAN BODY (EYE)

0201360001 IDENTIFY THE FUNCTION OF THE EYE.

0201395 HUMAN BODY (NOSE)

0201395001 IDENTIFY THE FUNCTION OF THE NOSE.

THE SUN HELPS TO CHANGE WATER TO WATER VAPOR WHICH GOES INTO THE AIR, BY PLACING ONE AND AN EQUAL GLASS OF WATER IN A DARK OR SHADED PLACE.

OF A RELEASED BALLOON IS CAUSED BY THE DOWNWARD RUSH OF AIR FROM THE BALLOON.

CKET BY BLOWING UP A BALLOON AND LETTING IT GO, CAUSING THE BALLOON TO MOVE.

SH IS CAUSED BY THE AIR RUSHING DOWN WARD FROM THE BALLOON.

LING A ROLLER SKATE WITH A RUBBER BAND, CAUSING THE RUBBER BAND TO STRETCH MORE
N ITS SIDE THAN WHEN IT IS IS PULLED ON ITS WHEELS.

E EAR,

E EYE,

E NOSE,

0201435 HUMAN BODY (TONGUE)
0201435001 IDENTIFY THE FUNCTIONS OF THE TONGUE.

0201470 MACHINES (SIMPLE)
0201470001 CHOOSE FIVE MACHINES FROM GROUP OF FIFTEEN OBJECTS.
0201470002 WITH SIMPLE MACHINE, GIVE DEMONSTRATION. SHOW HOW TASK CAN BE
0201470003 LEARN SIX SIMPLE MACHINES. IDENTIFY BY LISTING FOUR IN SCHOOL
0201470004 USING SIMPLE MATERIALS (SPOOLS, ROPE), MAKE A PULLEY SYSTEM

0201480 MAGNETS
0201480001 KNOW THAT A MAGNETIC FORCE CAN BE USED TO OVERCOME THE FORCE OF
0201480002 DEMONSTRATE THAT A MAGNETIC FORCE CAN BE USED TO OVERCOME
SOME OBJECTS.
0201480003 KNOW THAT A MAGNET CAN BE USED TO PICK UP SOME METAL OBJECTS
0201480004 DEMONSTRATE THAT A MAGNET CAN BE USED TO PICK UP SOME METAL OR
NON-METAL OBJECTS.
0201480005 KNOW THAT OBJECTS CAN BE ORDERED INTO TWO GROUPS THOSE THAT CAN
0201480006 ORDER OBJECTS INTO TWO GROUPS, THOSE THAT CAN BE PICKED UP BY A

E TONGUE.

GROUP OF FIFTEEN OBJECTS.

DEMONSTRATION. SHOW HOW TASK CAN BE MADE EASIER WITH MACHINE.

IDENTIFY BY LISTING FOUR IN SCHOOL ENVIRONMENT.

(S, ROPE), MAKE A PULLEY SYSTEM WHICH WORK.

CAN BE USED TO OVERCOME THE FORCE OF GRAVITY.

FORCE CAN BE USED TO OVERCOME THE FORCE OF GRAVITY; BY USING A MAGNET TO LIFT

ED TO PICK UP SOME METAL OBJECTS FROM AN ARRAY OF DIFFERENT METAL AND NON-METAL

N BE USED TO PICK UP SOME METAL OBJECTS FROM AN ARRAY OF DIFFERENT METAL AND

ERED INTO TWO GROUPS THOSE THAT CAN BE PICKED UP BY A MAGNET AND THOSE THAT CANNOT.

S, THOSE THAT CAN BE PICKED UP BY A MAGNET AND THOSE THAT CANNOT.

0201545 PLANTS (GROWTH)

0201545001 KEEP AN ACCURATE RECORD OF THE CHANGING PROPERTIES OF A GROWING

0201545002 DESCRIBE THE CHANGE OF PROPERTIES IN A GROWING PLANT.

0201555 PLANTS (MOLDS)

0201555001 KNOW THAT MOLD PLANTS MAKE MORE MOLD PLANTS.

0201555002 DEMONSTRATE THAT MOLD PLANTS MAKE MORE MOLD PLANTS BY PLACING
DARK, WARM PLACE.

0201560 PLANTS (NEEDS)

0201560001 PREPARE AN EXPERIMENT IN WHICH YOU TRY TO GROW SIMILAR SEEDS

0201560002 KNOW THAT WATER IS ESSENTIAL FOR SURVIVAL OF LIVING PLANTS

0201560003 DEMONSTRATE THAT WATER IS ESSENTIAL FOR SURVIVAL OF LIVING
SOME WITH SUFFICIENT WATER, AND SOME WITH INSUFFICIENT WATER.

0201560004 KNOW THAT GREEN PLANTS NEED SUNLIGHT.

0201560005 DEMONSTRATE THAT GREEN PLANTS NEED SUNLIGHT, BY SPROUTING
IN THE DARK TO BE PALE AND WEAK.

0201570 PLANTS (PARTS)

0201570001 DESCRIBE THE PROPERTIES OF A PLANT OR PART OF A PLANT.

CHANGING PROPERTIES OF A GROWING PLANT.

CHANGES IN A GROWING PLANT.

CAUSE MOLD PLANTS.

CAUSE MORE MOLD PLANTS BY PLACING A PIECE OF MOLDY FOOD NEAR NON-MOLDY FOODS IN A

HOW YOU TRY TO GROW SIMILAR SEEDS UNDER TWO OR MORE DIFFERENT SOIL CONDITIONS.

FACTORS FOR SURVIVAL OF LIVING PLANTS.

NECESSARY FOR SURVIVAL OF LIVING PLANTS, BY PLANTING BEAN SEEDS IN SOIL, WATERING
AND SOME WITH INSUFFICIENT WATER.

NEED SUNLIGHT.

NEED SUNLIGHT, BY SPROUTING POTATO EYES IN LIGHT AND DARK, CAUSING THOSE
TO GROW.

PLANT OR PART OF A PLANT.

| | | |
|------------|---|------------|
| 0201580 | PLANTS (SEEDS) | |
| 0201580001 | GIVEN SOME SEEDS, GROW A PLANT. | |
| 0201580002 | KNOW THAT A NEW PLANT SPROUTS FROM A DRIED LIMA BEAN, SEVERAL DAYS. | WHEN IT H |
| 0201580003 | OBSERVE DEVELOPMENT OF SEED. DRAW DIAGRAMS AND DEVELOPMENTAL STAGES OF GROWTH FOR PLANTS. | CONSTRUCT |
| 0201580004 | DEMONSTRATE THAT A NEW PLANT SPROUTS FROM A DRIED LIMA SEVERAL DAYS. | BEAN WHEN |
| 0201580005 | PREPARE EXPERIMENT IN WHICH YOU TRY TO GROW SIMILIAR | SEEDS UND |
| 0201620 | SCIENTIFIC METHOD | |
| 0201620001 | WITH SERIES OF EXPERIENCES RELATING TO OBSERVATION AND SITUATION. | INFERENCE |
| 0201630 | SOLAR SYSTEM | |
| 0201630001 | DEMONSTRATE THE SUN-MOON-EARTH LIGHT RELATIONSHIP, BY CAUSING IT TO REFLECT ONTO AN EARTH GLOBE. | SHINING A |
| 0201640 | SOUND | |
| 0201640001 | RECOGNIZE OBJECTS THAT MAKE SOUNDS THAT YOU CAN HEAR. | |
| 0201640002 | GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE | WHICH SOUN |
| 0201640003 | GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE | WHICH SOUN |

FROM A DRIED LIMA BEAN, WHEN IT HAS BEEN SOAKED IN WATER AND KEPT MOIST FOR
DRAW DIAGRAMS AND CONSTRUCT VIEWER TO OBSERVE GERMINATION AND
FOR PLANTS.
ROOTS FROM A DRIED LIMA BEAN WHEN IT HAS BEEN SOAKED IN WATER AND KEPT MOIST FOR
TRY TO GROW SIMILIAR SEEDS UNDER TWO OR MORE DIFFERENT SOIL CONDITIONS.
TING TO OBSERVATION AND INFERENCES MAKE OBSERVATION AND INFERENCE ABOUT A
LIGHT RELATIONSHIP, BY SHINING A FLASHLIGHT BEAM AGAINST WHITE PAPER AND
EARTH GLOBE.
SOUNDS THAT YOU CAN HEAR.
OTHER SOUND, RECOGNIZE WHICH SOUND IS LOUDER.
OTHER SOUND, RECOGNIZE WHICH SOUND HAS HIGHER PITCH.

0201640004 GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE WHICH

0201640005 CLASSIFY OBJECTS BY THE SOUNDS THEY MAKE.

0201650 SYSTEMS AND SUBSYSTEMS

0201650001 KEEP AN ACCURATE RECORD OF OBJECTS BELONGING TO A SYSTEM

0201650002 CLASSIFY OBJECTS AND MATERIALS INTO SYSTEMS AND SUBSYS

0201700 WEATHER (TEMPERATURE)

0201700001 KNOW THAT CHANGES IN TEMPERATURE CAN BE DISTINGUISHED BY USING

0201700002 DISTINGUISH BETWEEN CHANGES IN TEMPERATURE, AS INDICATED ON A T
UPWARD IN A WARMER ENVIRONMENT AND DOWNWARD IN A COLDER ENVIRO

0201700003 READ THERMOMETER CORRECTLY 10 OUT OF 12 TIMES.

BY ANOTHER SOUND, RECOGNIZE WHICH SOUND IS MORE PLEASANT.
SOUNDS THEY MAKE.

OF OBJECTS BELONGING TO A SYSTEM.

ERIALS INTO SYSTEMS AND SUBSYSTEMS.

PERATURE CAN BE DISTINGUISHED BY USING A THERMOMETER.

GES IN TEMPERATURE, AS INDICATED ON A THERMOMETER, BY OBSERVING THERMOMETER COLUMN MOVE
ONMENT AND DOWNWARD IN A COLDER ENVIRONMENT.

Y 10 OUT OF 12 TIMES.

0202070 CLASSIFICATION

0202070001 CLASSIFY GIVEN OBJECTS.

0202070002 DESCRIBE THE PROPERTIES OF A GIVEN OBJECT.

0202075 CLASSIFY (ANIMALS)

0202075001 CLASSIFY FAMILIAR ANIMALS ACCORDING TO WHETHER THEY EAT MEAT, PLANT

0202075002 AFTER STUDYING DIFFERENT CLASSIFICATION SCHEMES, WRITE AT LEAST
CHARACTERISTICS ARE MOST IMPORTANT IN CLASSIFYING ANIMALS.

0202090 CLASSIFY (MATTER)

0202090001 GIVEN THE NAME OF 20 DIFFERENT MATERIALS USED IN OUR DAILY LIV
PHYSICAL PROPERTIES AS LIQUID, GAS, OR SOLID.

0202120 ELECTRICITY

0202120001 KNOW HOW TO CONSTRUCT A CIRCUIT, USING A DRY CELL, WIRES, AND

0202120002 IDENTIFY OPEN AND CLOSED CIRCUITS.

0202120003 PREDICT WHETHER OR NOT AN OBJECT WILL CLOSE AN OPEN CIRCUIT.

0202120004 KNOW HOW A FLASHLIGHT WORKS.

0202120005 DESCRIBE HOW A FLASHLIGHT WORKS BY DISASSEMBLING ONE AND OBSERVING

OBJECT.

TO WHETHER THEY EAT MEAT, PLANTS, OR BOTH.

IN CLASSIFYING AT LEAST ONE PARAGRAPH STATING WHICH ANIMAL ANIMALS.

MATERIALS USED IN OUR DAILY LIVES, CLASSIFY THE MATERIALS ACCORDING TO THEIR
OR SOLID.

USING A DRY CELL, WIRES, AND A LAMP.

WILL CLOSE AN OPEN CIRCUIT.

DISASSEMBLING ONE AND OBSERVING THE COMPONENTS IN RELATION TO A CIRCUIT.

- 0202120006 CONSTRUCT A CIRCUIT, USING A DRY CELL, WIRES, AND A LAMP
- 0202120007 EXPLAIN WHY AN ELECTRICAL CIRCUIT IS A SYSTEM OF INTER
- 0202120008 KNOW THAT HUMAN ENERGY CAN BE USED TO GENERATE ELEC
- 0202120009 DEMONSTRATE THAT HIS OWN ENERGY CAN BE USED TO GENERATE ELEC
-
- 0202130 ENERGY TRANSFORMATION (AIR)
- 0202130001 CONSTRUCT A HYPOTHESIS THAT THIS EXPANSION OF HEATED AIR: IN A
- 0202130002 KNOW THAT AIR IN A BOTTLE CAN BE HEATED TO EXPAND A BALLO
- 0202130003 DESCRIBE THAT AIR IN A BOTTLE CAN BE HEATED TO EXPAND A BALLO
-
- 0202195 ENERGY TRANSFORMATION (EVAPORATION)
- 0202195001 CONSTRUCT A HYPOTHESIS THAT THE MOLECULES MUST HAVE PASSE
- 0202195002 KNOW THAT WET MATERIALS DRY WHEN WATER EVAPORATES FROM THEM.
- 0202195003 DEMONSTRATE THAT WET MATERIALS DRY WHEN WATER EVAPORATES FROM
-
- 0202275 ENERGY TRANSFORMATION (SUBSTANCE)

A DRY CELL, WIRES, AND A LAMP, CAUSING THE LAMP TO LIGHT.

CIRCUIT IS A SYSTEM OF INTERACTING OBJECTS.

BE USED TO GENERATE ELECTRICITY.

ENERGY CAN BE USED TO GENERATE ELECTRICITY, BY USING A HAND GENERATOR TO LIGHT A LAMP.

AT THIS EXPANSION OF HEATED AIR IN A BALLOON MAY BE DUE TO FASTER MOVING MOLECULES.

CAN BE HEATED TO EXPAND A BALLOON.

TLE CAN BE HEATED TO EXPAND A BALLOON.

EVAPORATION)

AT THE MOLECULES MUST HAVE PASSED INTO THE AIR WHEN WET MATERIALS DRIED.

RY WHEN WATER EVAPORATES FROM THEM.

IALS DRY WHEN WATER EVAPORATES FROM THEM.

0202275001 KNOW THAT SUGAR WILL DISSOLVE EVENLY IN WATER, AND THE PARTICLES
TASTED.

0202275002 DEMONSTRATE THAT SUGAR WILL DISSOLVE EVENLY IN WATER, AND THE
BE TASTED.

0202275003 NAME THE PARTICLES IN SUGAR-WATER AS MOLECULES.

0202275004 KNOW THAT THE PARTICLES IN SUGAR-WATER ARE MOLECULES.

0202275005 KNOW THAT SUGAR MOLECULES IN WATER PASS THROUGH A COTTON FILTER,
PARTICLES NOW VISIBLE.

0202275006 DEMONSTRATE THAT SUGAR MOLECULES IN WATER PASS THROUGH A COTTON
LEAVING SUGAR PARTICLES NOW VISIBLE.

0202285 ENERGY TRANSFORMATION (WATER)

0202285001 KNOW THAT BOILING WATER CAUSES WATER TO CHANGE TO STEAM, AND THAT
THE STEAM TAKES UP SPACE.

0202285002 DESCRIBE THAT BOILING WATER CAUSES WATER TO CHANGE TO STEAM,
AND THAT THE STEAM TAKES UP SPACE.

0202285003 KNOW THAT BOILING WATER CAUSES STEAM, AND THAT THE STEAM TAKES UP
SPACE.

0202285004 DESCRIBE THAT BOILING WATER CAUSES STEAM, AND THAT THE STEAM TAKES UP
SPACE.

0202305 FUELS

0202305001 KNOW THAT OIL DROPS CAN SOAK INTO SANDSTONE.

0202305002 DEMONSTRATE THAT OIL DROPS CAN SOAK INTO SANDSTONE, THUS DEVELOPING
A RESERVOIR.

ENLY IN WATER, AND THE PARTICLES OF SUGAR WILL NOT BE VISIBLE BUT CAN BE
OLVE EVENLY IN WATER, AND THE PARTICLES OF SUGAR WILL NOT BE VISIBLE BUT CAN
R AS MOLECULES.

-WATER ARE MOLECULES.

ER PASS THROUGH A COTTON FILTER, AND THAT THE WATER CAN EVAPORATE LEAVING SUGAR

IN WATER PASS THROUGH A COTTON FILTER, AND THAT THE WATER CAN EVAPORATE
BLE.

ATER TO CHANGE TO STEAM, AND THIS CAN DO WORK.

ES WATER TO CHANGE TO STEAM, AND THIS CAN DO WORK.

TEAM, AND THAT THE STEAM TAKES UP MORE ROOM DUE TO MOLECULES MOVING FARTHER

ES STEAM, AND THAT THE STEAM TAKES UP MORE ROOM DUE TO MOLECULES MOVING FARTHER

D SANDSTONE.

ERIC
AK INTO SANDSTONE, THUS DEVELOPING A MODEL OF HOW OIL CAN BE HELD IN ROCK LAYERS

| | | |
|------------|--|----------------------|
| 0202305003 | KNOW THAT THERE ARE THREE COMPONENT LEVELS OF AN OIL | SUPPLY |
| 0202305004 | IDENTIFY THREE COMPONENT LEVELS OF A MODEL OF AN OIL FILLED WITH MARBLES), ---WATER, OIL, AND GAS. | SUPPLY |
| 0202305005 | CONSTRUCT A MODEL OF AN OIL SUPPLY IN THE EARTH, BY | MIXING |
| | | |
| 0202365 | HUMAN BODY (GROWTH) | |
| 0202365001 | DESCRIBE GROWTH CHANGES, SINCE LAST YEAR, BY USING | GROWTH |
| 0202365002 | DEMONSTRATE HEIGHT AND WEIGHT, BY USING A TAPE MEASURE | AND SCALE |
| | | |
| 0202455 | LIGHT | |
| 0202455001 | KNOW THAT A BEAM OF SUNLIGHT PASSED THROUGH A PRISM OF THE SPECTRUM. | (OR DIFF |
| 0202455002 | DEMONSTRATE THAT A BEAM OF SUNLIGHT PASSES THROUGH A COLORS OF THE SPECTRUM. | PRISM (C |
| 0202455003 | KNOW THAT LIGHT TRAVELS IN A STRAIGHT LINE AND IS MIRROR, CAUSING THE LIGHT SPOT TO BE OBSERVED IN ANOTHER DIRECTION | REFLECTE |
| 0202455004 | DEMONSTRATE THAT LIGHT TRAVELS IN A STRAIGHT LINE AND IS MIRROR, CAUSING THE LIGHT SPOT TO BE OBSERVED IN ANOTHER DIRECTION | REFLECTE |
| 0202455005 | KNOW THAT AN IMAGE IS REFLECTED IN THE MIRROR, AND FRONT OF THE MIRROR. | APPEARS |
| 0202455006 | DEMONSTRATE THAT AN IMAGE IS REFLECTED IN THE MIRROR, FRONT OF THE MIRROR, BY USING MIRROR AND YARDSTICK FOR | AND APPE MEASURIN |
| 0202455007 | KNOW THAT DIFFERENT AMOUNTS OF LIGHT PASS THROUGH | DIFFEREN |

COMPONENT LEVELS OF AN OIL SUPPLY MODEL IN THE EARTH--WATER, OIL, AND GAS.

LEVELS OF A MODEL OF AN OIL SUPPLY IN THE EARTH, (BY MIXING OIL AND WATER INTO A JAR
 OF OIL, AND GAS.

SUPPLY IN THE EARTH, BY MIXING OIL AND WATER INTO A JAR FILLED WITH MARBLES.

LAST YEAR, BY USING GROWTH AND WEIGHT MEASUREMENTS.

BY USING A TAPE MEASURE AND SCALE.

PASSED THROUGH A PRISM (OR DIFFRACTION GRATING), AND IS SEPARATED INTO COLORS

LIGHT PASSES THROUGH A PRISM (OR DIFFRACTION GRATING), AND IS SEPARATED INTO

STRAIGHT LINE AND IS REFLECTED WHEN A FLASHLIGHT BEAM IS DIRECTED AT A
 TO BE OBSERVED IN ANOTHER DIRECTION.

IN A STRAIGHT LINE AND IS REFLECTED WHEN A FLASHLIGHT BEAM IS DIRECTED AT A
 TO BE OBSERVED IN ANOTHER DIRECTION.

AND IN THE MIRROR, AND APPEARS AS FAR INTO THE MIRROR AS THE PERSON IS IN

REFLECTED IN THE MIRROR, AND APPEARS AS FAR INTO THE MIRROR AS THE STUDENT IS IN
 M AND YARDSTICK FOR MEASURING.

LIGHT PASS THROUGH DIFFERENT MATERIALS.

- 0202455008 DEMONSTRATE THAT DIFFERENT AMOUNTS OF LIGHT PASS THROUGH DIFFERENT M
TRANSPARENT, TRANSLUCENT, AND OPAQUE MATERIALS.
- 0202460 MACHINES
- 0202460001 AFTER LEARNING WHAT MACHINES DO FOR THEM, DRAMATIZE WHAT THE WORLD W
- 0202470 MACHINES (SIMPLE)
- 0202470001 IDENTIFY PULLEY SYSTEMS IN EVERYDAY OBJECTS.
- 0202470002 PREDICT WHETHER AN OBJECT WITH A PULLEY WILL MOVE MORE OR LESS EAS
COMPLETE AN EXPERIMENT TO SEE IF YOU WERE RIGHT.
- 0202470003 PREDICT WHICH DIRECTION THE PULLEY CORD SHOULD BE PULLED IN ORDER TO
AN EXPERIMENT TO SEE IF YOU WERE RIGHT.
- 0202470004 PREDICT WHETHER AN OBJECT ON ROLLERS OR WHEELS WILL MOVE MORE OR LES
COMPLETE EXPERIMENT TO SEE IF YOU WERE RIGHT.
- 0202470005 IDENTIFY GEARS ON AN OBJECT.
- 0202470006 IDENTIFY THE FASTER GEAR ON AN OBJECT WITH TWO GEARS.
- 0202525 PLANTS (CAPILLARY ACTION)
- 0202525001 KNOW THAT WATER TRAVELS THROUGH THE STEM AND INTO THE LEAVES.
- 0202525002 DEMONSTRATE THAT WATER TRAVELS THROUGH THE STEM AND INTO THE LEAVES,
CONTAINING DYE AND LEAVING IT THERE UNTIL THE COLOR APPEARS IN

ENTS OF LIGHT PASS THROUGH DIFFERENT MATERIALS, BY USING A WIDE VARIETY OF
PAQUE MATERIALS.

FOR THEM, DRAMATIZE WHAT THE WORLD WOULD BE LIKE WITHOUT A PARTICULAR MACHINE.

YDAY OBJECTS.

A PULLEY WILL MOVE MORE OR LESS EASILY THAN AN OBJECT WITHOUT A PULLEY.
IF YOU WERE RIGHT.

LEY CORD SHOULD BE PULLED IN ORDER TO MAKE THE OBJECT MOVE UP OR DOWN. COMPLETE
E RIGHT.

LLERS OR WHEELS WILL MOVE MORE OR LESS EASILY THAN AN OBJECT WHICH IS NOT.
OU WERE RIGHT.

OBJECT WITH TWO GEARS.

THE STEM AND INTO THE LEAVES.

THROUGH THE STEM AND INTO THE LEAVES, BY PLACING CUT CELERY STALK IN WATER
UNTIL COLOR APPEARS IN THE LEAF VEINS.

| | | |
|------------|--|----------------------|
| 0202560 | PLANTS (NEEDS) | |
| 0202560001 | KNOW THAT SEEDS NEED HEAT TO GROW. | |
| 0202560002 | DEMONSTRATE THAT SEEDS NEED HEAT TO GROW, BY TRYING TO PLACE, SHOWING THAT SEEDS GROW SUBJECT TO LIMITS OF | SPROUT S THEIR EN |
| 0202560003 | KNOW THAT A GREEN PLANT NEEDS WATER. | |
| 0202560004 | DEMONSTRATE THAT A GREEN PLANT NEEDS WATER, BY GROWING WATERING OTHERS. | PLANTS I |
| 0202560005 | KNOW THAT A GREEN PLANT NEEDS LIGHT. | |
| 0202560006 | DEMONSTRATE THAT A GREEN PLANT NEEDS LIGHT BY GROWING | SOME PLA |
| 0202575 | PLANTS (ROOTS) | |
| 0202575001 | KNOW THAT GROWING SEEDS FORM ROOTS THAT GROW DOWNWARD | TOWARDS |
| 0202575002 | DEMONSTRATE THAT GROWING SEEDS FORM ROOTS THAT GROW GLASS CONTAINERS IN DIFFERENT POSITIONS. | DOWNWARD |
| 0202580 | PLANTS (SEEDS) | |
| 0202580001 | IDENTIFY CONE, SCALE, AND SEED, BY OBSERVING MATURE PINE CONES. | |
| 0202580002 | KNOW THAT PARTS OF A MATURE PINE CONE---CONE, SCALE, | AND SEED |
| 0202580003 | NAME PARTS AS CONE, SCALE, AND SEED ON MATURE PINE | CONES. |
| 0202580004 | DISTINGUISH BETWEEN GROWING BEAN AND CORN SEEDLINGS, BY OBSERVING | |

TO GROW.

HEAT TO GROW, BY TRYING TO
GROW SUBJECT TO LIMITS OF

SPROUT SOME SEEDS IN A WARM PLACE AND OTHERS IN A COLD
THEIR ENVIRONMENT.

AND WATER.

PLANT NEEDS WATER, BY GROWING

PLANTS IN THE CLASSROOM AND BY WATERING SOME AND NOT

AND LIGHT.

PLANT NEEDS LIGHT BY GROWING

SOME PLANTS IN LIGHT AND OTHERS IN DARK.

AND ROOTS THAT GROW DOWNWARD

TOWARDS THE EARTH.

SEEDS FORM ROOTS THAT GROW
IN DIFFERENT POSITIONS.

DOWNWARD TOWARDS THE EARTH, BY PLACING GROWING SEEDS IN

SEED, BY OBSERVING MATURE PINE CONES.

PINE CONE---CONE, SCALE,

AND SEED.

AND SEED ON MATURE PINE

CONES.

BEAN AND CORN SEEDLINGS, BY OBSERVING THEIR CHARACTERISTICS,

| | | |
|------------|--|----------------------|
| 0202580005 | KNOW THAT GRASS PLANTS GROW FROM GRASS SEEDS, HEREDITY. | ILLUSTR |
| 0202580006 | DEMONSTRATE THAT GRASS PLANTS GROW FROM GRASS SEEDS, HEREDITY. | ILLUSTR |
| 0202580007 | DEMONSTRATE THAT EACH ORGANISM GIVES RISE TO ITS OWN | KIND, BY |
| 0202580008 | KNOW THE DIFFERENCES BETWEEN GROWING BEAN AND CORN | SEEDLING |
| 0202580009 | IDENTIFY THE NEW PLANT AND FOOD FOR GROWTH IN LIMA | BEANS AN |
| 0202595 | POLLUTION (WATER) | |
| 0202595001 | DEMONSTRATE HOW WATER POLLUTION IS CAUSED AND PREDICT EXIST. | WHAT WILL |
| 0202600 | POLLUTION (WATER AND AIR) | |
| 0202600001 | DIVIDE INTO GROUPS AND GATHER INFORMATION ON AT LEAST PAPER GIVING THEIR INFERENCES ON HOW ONE OF THE | FIVE CAU POLLUTIO |
| 0202610 | REPRODUCTION | |
| 0202610001 | CLASSIFY ANIMAL MOTHERS INTO THESE TWO GROUPS: MOTHERS | WHO HAVE |
| 0202610002 | MATCH ANIMAL PARENTS TO THEIR OFFSPRING. | |
| 0202610003 | IDENTIFY THE TERMS MALE, FEMALE, PARENT, AND OFFSPRING | WHEN DIS |

GRASS SEEDS, ILLUSTRATING THAT AN ORGANISM IS THE PRODUCT OF ITS
FROM GRASS SEEDS, ILLUSTRATING THAT AN ORGANISM IS THE PRODUCT OF ITS
ES RISE TO ITS OWN KIND, BY PLANTING BEAN AND CORN SEEDS.
NG BEAN AND CORN SEEDLINGS.
OR GROWTH IN LIMA BEANS AND CORN SEEDS WHICH HAVE BEEN SOAKED IN WATER.

CAUSED AND PREDICT WHAT WILL HAPPEN IF THE POLLUTION FACTORS CONTINUE TO

FORMATION ON AT LEAST FIVE CAUSES OF AIR OR WATER POLLUTION AND WRITE A SHORT
HOW ONE OF THE POLLUTION FACTORS CAN BE ELIMINATED.

TWO GROUPS: MOTHERS WHO HAVE LIVING BABIES AND MOTHERS WHO LAY EGGS,

SPRING.
AND OFFSPRING WHEN DISCUSSING MEMBERS OF ANIMAL FAMILIES.

- 0202620 SCIENTIFIC METHOD
- 0202620001 KEEP AN ACCURATE RECORD OF OBJECTS USED IN EXPERIMENT
- 0202620002 AFTER COLLECTING INFORMATION ABOUT HOW ORGANISMS
OF LISTS, NOTES, OR PICTURES.
- 0202620003 KEEP AN ACCURATE RECORD OF OBJECTS YOU HAVE OBSERVED
- 0202620004 FOLLOWING A QUESTION AND ANSWER PERIOD DEFINING THE
MAKE A LIST OF AT LEAST THREE DIFFERENCES BETWEEN AN
- 0202625 SOIL
- 0202625001 EXPLAIN DIFFERENT WAYS ROCK IS BROKEN DOWN TO BECOME
- 0202625002 GIVEN A CROSS-SECTION OF SOILS, RECOGNIZE LAYERS AS:
- 0202625003 DESCRIBE THE THINGS WE FIND IN DARK TOPSOIL THAT ARE NOT
- 0202625004 TELL THE THINGS SOIL MUST HAVE TO MAKE PLANTS GROW WELL.
- 0202625005 TELL HOW SOIL HELPS ANIMALS.
- 0202625006 TELL WAYS THAT ANIMALS HELP TO MAKE GOOD SOIL.
- 0202625007 TELL THE WAYS PLANTS HELP MAKE GOOD SOIL.
- 0202630 SOLAR SYSTEM
- 0202630001 KNOW THAT THE EARTH REVOLVES IN AN ORBIT AROUND THE SUN.

OF OBJECTS USED IN EXPERIMENT AND THE RESULTS OF EXPERIMENT.

QUESTION ABOUT HOW ORGANISMS INTERACT WITH THEIR ENVIRONMENT, RECORD IT IN THE FORMS
RES.

OF OBJECTS YOU HAVE OBSERVED INTERACTING AT A DISTANCE (MAGNETISM).

ANSWER PERIOD DEFINING THE DIFFERENCE BETWEEN AN 'OBSERVATION' AND AN 'INFERENCE',
THREE DIFFERENCES BETWEEN AN OBSERVATION AND AN INFERENCE WITH 100 PER CENT ACCURACY.

ROCK IS BROKEN DOWN TO BECOME SOIL.

SOILS, RECOGNIZE LAYERS AS TOPSOIL, SUBSOIL, AND BEDROCK.

AND IN DARK TOPSOIL THAT ARE NOT FOUND IN SAND AND SUBSOIL.

WE HAVE TO MAKE PLANTS GROW WELL.

PLS.

HELP TO MAKE GOOD SOIL.

MAKE GOOD SOIL.

PLANETS IN AN ORBIT AROUND THE SUN.

- 0202630002 KNOW THAT THE EARTH ROTATES AS IT REVOLVES AROUND THE SUN.
- 0202630003 DEMONSTRATE THAT THE EARTH ROTATES AS IT REVOLVES AROUND THE SUN AND BY REVOLVING THE EARTH GLOBE AS IT IS MOVED AROUND THE LAMP.
- 0202630004 DEMONSTRATE THAT THE EARTH REVOLVES IN AN ORBIT AROUND THE SUN AND FARTH.
- 0202630005 KNOW THAT THE LIGHTED AREA OF THE MOON CHANGES SHAPE, IN RELATION TO THE EARTH.
- 0202630006 DEMONSTRATE HOW THE LIGHTED AREA OF THE MOON CHANGES SHAPE, BY USING AN ORANGE AND A FLASHLIGHT.
- 0202640000 SOUND
- 0202640001 KNOW THAT SOUND IS A RESULT OF SOMETHING MOVING.
- 0202640002 DEMONSTRATE THAT SOUND IS A RESULT OF SOMETHING MOVING, BY USING RUBBER BANDS.
- 0202640003 KNOW THAT SOUND TRAVELS THROUGH VARIOUS SUBSTANCES, SUCH AS WOOD, METAL, AND WATER.
- 0202640004 DEMONSTRATE THAT SOUND TRAVELS THROUGH VARIOUS SUBSTANCES BY USING SIMPLE SOUND MAKERS.
- 0202640005 KNOW THAT SOME SOUNDS ARE HIGH AND SOME ARE LOW, BY USING VARIOUS SOUND MAKERS.
- 0202640006 DEMONSTRATE THAT SOME SOUNDS ARE HIGH AND SOME ARE LOW, BY USING VARIOUS SOUND MAKERS, SUCH AS DIFFERENT SIZE RUBBERBANDS ON A SOUND BOX.
- 0202640007 KNOW THAT THE PAPER HORN HELPS THE EAR COLLECT MORE SOUND.
- 0202640008 CONSTRUCT A PAPER HORN FOR LISTENING, USING CONSTRUCTION PAPER AND RUBBER BANDS.

ES AS IT REVOLVES AROUND THE SUN.

H ROTATES AS IT REVOLVES AROUND THE SUN, BY USING AN EARTH GLOBE AND AN ELECTRIC LAMP,
H GLOBE AS IT IS MOVED AROUND THE LAMP.

H REVOLVES IN AN ORBIT AROUND THE SUN, BY USING A LARGE AND SMALL BALL AS MODELS OF

A OF THE MOON CHANGES SHAPE, IN RELATION TO THE SUN, EARTH, AND MOON POSITIONS.

ED AREA OF THE MOON CHANGES SHAPE, IN RELATION TO THE SUN, EARTH, AND MOON POSITIONS
FLASHLIGHT.

LT OF SOMETHING MOVING.

A RESULT OF SOMETHING MOVING, BY USING SIMPLE MATERIALS SUCH AS SOUND BOXES AND RUBBER

THROUGH VARIOUS SUBSTANCES, SUCH AS WOOD, WATER, AND AIR,

RAVELS THROUGH VARIOUS SUBSTANCES, SUCH AS WOOD, WATER, AND AIR, BY USING

E HIGH AND SOME ARE LOW, BY VARYING DIMENSIONS AND VIBRATING SPEED OF SOUND MAKERS.

UNDS ARE HIGH AND SOME ARE LOW, BY VARYING DIMENSIONS AND VIBRATING SPEED OF SOUND
Y SIZE RUBBERBANDS ON A SOUND BOX.

HELPS THE EAR COLLECT MORE SOUND.

R ERIC ENING, USING CONSTRUCTION PAPER AND PAPER FASTENERS.

0202640009 DEMONSTRATE THAT THE PAPER HORN HELPS THE EAR COLLECT MORE SO
LISTENS TO SOUNDS.

0202645 SYSTEMS (INTERACTIONS)

0202645001 FIND INFORMATION ABOUT HOW LIVING THINGS INTERACT WITH THEIR E

0202645002 EXPLAIN WHAT FACTORS WILL INFLUENCE THE GROWTH OF AN ORGANIS

0202645003 DESCRIBE HOW THINGS IN AN AQUARIUM INTERACT TO KEEP IT BALANCE

0202645004 TELL WHAT SHOULD BE ADDED TO THE CLASS AQUARIUM TO KEEP THE AQU

0202645005 PRESENT ORALLY TO A GROU FINDINGS ABOUT HOW ORGANISMS INTERAC
EXAMPLES.

0202645006 DEMONSTRATE THROUGH DRAWING, WRITING, OR SEQUENCING PICTURE
ON THE SUN).

0202645007 CLASSIFY SYSTEMS OF OBJECTS ACCORDING TO WHETHER THEY SHOW EV

0202645008 FIND EVIDENCE OF INTERACTION BY COMPARING SIMILAR EXPERIM

0202645009 IDENTIFY INTERACTING OBJECTS IN DEMONSTRATIONS OR PICTURE

0202645010 RECOGNIZE EVIDENCE OF INTERACTION IN DEMONSTRATIONS OR PICTURE

0202645011 RECOGNIZE CONSERVATION WITHIN A SYSTEM IN WHICH OBJECTS CHANGE

0202645012 USING VARIOUS SENSES, FIND EVIDENCE OF INTERACTION.

PER HORN HELPS THE EAR COLLECT MORE SOUND, BY HOLDING THE HORN AGAINST HIS EAR WHILE H

HOW LIVING THINGS INTERACT WITH THEIR ENVIRONMENT. WRITE DOWN WHAT YOU FIND.

LL INFLUENCE THE GROWTH OF AN ORGANISM.

AN AQUARIUM INTERACT TO KEEP IT BALANCED.

ED TO THE CLASS AQUARIUM TO KEEP THE AQUARIUM BALANCED.

UP FINDINGS ABOUT HOW ORGANISMS INTERACT IN THEIR ENVIRONMENT USING PICTURES OR REAL

WING, WRITING, OR SEQUENCING PICTURES THE MEANING OF FOOD CHAIN, (INCLUDE DEPENDENCE

ECTS ACCORDING TO WHETHER THEY SHOW EVIDENCE OF INTERACTION AT A DISTANCE.

CTION BY COMPARING SIMILAR EXPERIMENTS.

UJECTS IN DEMONSTRATIONS OR PICTURES.

INTERACTION IN DEMONSTRATIONS OR PICTURES.

WITHIN A SYSTEM IN WHICH OBJECTS CHANGE IN APPEARANCE.

DEPENDENCE OF INTERACTION.

0202645013 IDENTIFY THE SENSE OR SENSES USED TO OBSERVE INTERACTION AT

0202650 SYSTEMS AND SUBSYSTEMS

0202650001 RECOGNIZE SYSTEMS OF INTERACTING OBJECTS.

0202650002 IDENTIFY SYSTEMS OF OBJECTS THAT INTERACT AT A DISTANCE.

0202650003 USE THE WORD SYSTEM CORRECTLY BY RECOGNIZING COMMON ELEM
SYSTEM.

0202650004 USE THE WORD SYSTEM TO REFER TO A GROUP OF RELATED OBJE
WHICH MAKE THEM PART OF THE SAME SYSTEM.

SETS USED TO OBSERVE INTERACTION AT A DISTANCE. (MAGNETISM)

TRACTING OBJECTS.

TS THAT INTERACT AT A DISTANCE.

ETLY BY RECOGNIZING COMMON

ELEMENTS OF OBJECTS WHICH MAKE THEM PART OF THE SAME

FER TO A GROUP OF RELATED
THE SAME SYSTEM.

OBJECTS AND RECOGNIZE THE COMMON ELEMENTS OF OBJECTS

| | | |
|------------|--|----------|
| 0203055 | ANIMALS | |
| 0203055001 | FILL IN OUTLINE. SHOW FIVE CLASSES OF ANIMALS AND 2-3 | CHARACT |
| 0203055002 | PLACE CLASSES OF ANIMALS IN PROPER ENVIRONMENT. | |
| 0203055003 | CHOOSE FRESH-WATER ANIMAL. TELL HOW IT ADAPTED TO ITS | ENVIRON |
| 0203055004 | DESCRIBE HOW ONE SEA ANIMAL IS ADAPTED TO LIFE IN SEA. | |
| 0203055005 | WRITE STORY ABOUT ANIMAL THAT LIVES IN SPA. DESCRIBE | ITS ENV |
| 0203055006 | DESCRIBE THAT BACKBONES OF DIFFERENT ANIMALS, SUCH AS | CHICKEN |
| | AND THAT EACH BONE HAS A HOLE IN THE MIDDLE. | |
| 0203055007 | NAME THE BONES THAT MAKE UP A BACKBONE AS VERTEBRAE, | ANIMALS |
| | WITHOUT BACKBONES AS INVERTEBRATES. | |
| 0203055008 | KNOW THAT BACKBONES OF DIFFERENT ANIMALS ARE MADE OF | BONES TH |
| | THE MIDDLE. | |
| 0203055009 | KNOW THE BONES THAT MAKE UP A BACKBONE AS VERTEBRAE, | ANIMALS |
| | WITHOUT BACKBONES AS INVERTEBRATES. | |
| 0203055010 | PREPARE TWO-PART ANIMAL BOOKLET OF VERTEBRATES AND | INVERTEB |
| 0203055011 | GIVE CHARACTERISTICS OF VERTEBRATES. | |
| 0203090 | CLASSIFY (MATTER) | |
| 0203090001 | DEMONSTRATE 3 STATES OF MATTER AND ITS CHANGES. USE | WATER. |
| 0203090002 | KNOW THE DIFFERENCES IN LIMA BEANS AND SIMILAR SIZED | PEBBLES |

DIVIDE CLASSES OF ANIMALS AND 2-3 CHARACTERISTICS OF EACH.

IN PROPER ENVIRONMENT.

L. TELL HOW IT ADAPTED TO ITS ENVIRONMENT.

ANIMAL IS ADAPTED TO LIFE IN SEA.

ANIMAL THAT LIVES IN SEA. DESCRIBE ITS ENVIRONMENT. DRAW PICTURES TO ILLUSTRATE STORY.

OF DIFFERENT ANIMALS, SUCH AS CHICKEN AND FISH, ARE MADE OF BONES THAT FIT TOGETHER
HOLE IN THE MIDDLE.

SET UP A BACKBONE AS VERTEBRAE, ANIMALS WITH BACKBONES AS VERTEBRATES, AND ANIMALS
INVERTEBRATES.

DIFFERENT ANIMALS ARE MADE OF BONES THAT FIT TOGETHER AND THAT EACH BONE HAS A HOLE IN

SET UP A BACKBONE AS VERTEBRAE, ANIMALS WITH BACKBONES AS VERTEBRATES, AND ANIMALS
INVERTEBRATES.

BOOKLET OF VERTEBRATES AND INVERTEBRATES.

VERTEBRATES.

MATTER AND ITS CHANGES. USE WATER.

USE LIMA BEANS AND SIMILAR SIZED PEBBLES AS LIVING AND NON-LIVING SUBSTANCES.

- 0203090003 DISTINGUISH BETWEEN LIMA BEANS AND SIMILAR SIZED PEBBLES AS
- 0203090004 KNOW THAT LIMA BEANS ARE LIVING THINGS AND MAY BE KILLED BY
- 0203090005 DEMONSTRATE THAT LIMA BEANS ARE LIVING THINGS AND MAY BE KILLED BY
BEANS BOILED IN WATER TEN MINUTES WILL NOT SPROUT AND BEANS
- 0203090006 KNOW THAT LIMA BEANS WILL CHANGE, AND SIMILAR SIZED PEBBLES
AS COMPARED TO THE SAME SUBSTANCES NOT BOILED.
- 0203090007 DESCRIBE THAT LIMA BEANS WILL CHANGE, AND SIMILAR SIZED PEBBLES
AS COMPARED TO THE SAME SUBSTANCES NOT BOILED.
- 0203100 CLASSIFY (PLANT AND ANIMAL)
- 0203100001 TELL POSSIBLE GEOGRAPHIC REASONS WHY PREHISTORIC PLANTS AND
- 0203100002 TELL WHAT A FOSSIL IS. TELL WHAT WE LEARN FROM FOSSILS.
- 0203120 ELECTRICITY
- 0203120001 BUILD AN ELECTRO MAGNET.
- 0203120002 CONSTRUCT AN ELECTROMAGNET USING A DRY CELL, AND COVERED COPPER
- 0203120003 KNOW THAT A NAIL ACTS AS A MAGNET WHEN IT IS IN A COIL OF WIRE
- 0203120004 DESCRIBE THAT A NAIL ACTS AS A MAGNET ONLY WHEN IT IS IN A COIL OF WIRE
- 0203120005 DEMONSTRATE THAT ELECTRIC ENERGY CAN MAKE THINGS MOVE, BY USING

AND SIMILAR SIZED PEBBLES AS LIVING AND NON-LIVING SUBSTANCES.

ING THINGS AND MAY BE KILLED BY EXTREMES SUCH AS HEAT.

ARE LIVING THINGS AND MAY BE KILLED BY EXTREMES SUCH AS HEAT, BY SHOWING THAT
MINUTES WILL NOT SPROUT AND BEANS NOT BOILED WILL SPROUT.

CHANGE, AND SIMILAR SIZED PEBBLES WILL NOT CHANGE, WHEN THEY ARE BOILED IN WATER,
PEBBLES WILL NOT CHANGE, WHEN THEY ARE BOILED IN WATER,
ANCES NOT BOILED.

CHANGE, AND SIMILAR SIZED PEBBLES WILL NOT CHANGE, WHEN THEY ARE BOILED IN WATER
ANCES NOT BOILED.

REASONS WHY PREHISTORIC PLANTS AND ANIMALS ARE NO LONGER LIVING.

WHAT WE LEARN FROM FOSSILS.

WINDING A DRY CELL, AND COVERED COPPER WIRE TO FORM A COIL AROUND A LARGE NAIL.

BECOMES A MAGNET WHEN IT IS IN A COIL OF WIRE CONNECTED TO A DRY CELL.

WORKS AS A MAGNET ONLY WHEN IT IS IN A COIL OF WIRE CONNECTED TO A DRY CELL.

HOW AN ELECTROMAGNET CAN MAKE THINGS MOVE, BY USING THE ELECTROMAGNET TO LIFT PAPER CLIPS.

- 0203120006 KNOW THAT AN ELECTROMAGNET CAN MAKE A BELL RING.
- 0203120007 DEMONSTRATE THAT AN ELECTROMAGNET CAN MAKE A BELL RING, BY WIRING
- 0203120008 GIVEN ALL THE COMPONENTS TO CONSTRUCT A COMPLETE ELECTRICAL CIRCUIT ON WHAT WILL HAPPEN IF ALL COMPONENTS ARE CORRECTLY CONNECTED
- 0203120009 GIVEN WORKING COMPONENTS TO CONSTRUCT ELECTRICAL CIRCUIT AND ONE DEFECTIVE COMPONENT RETARDS WORKING PARTS FROM FUNCTIONING
- 0203125 ENERGY TRANSFORMATION
- 0203125001 DISCOVER THAT ENERGY IS REQUIRED TO CAUSE MOVEMENT BY USING WORK
- 0203125002 EXPLAIN DIFFERENCE IN STORED ENERGY AND ENERGY OF MOTION.
- 0203125003 STATE THAT ENERGY CAN BE CHANGED NOT MADE.
- 0203125004 GIVE THE CORRECT DEFINITION OF THE FOLLOWING IN A MATCHING MOLECULE.
- 0203130 ENERGY TRANSFORMATION (AIR)
- 0203130001 KNOW THAT MOVING AIR HAS ENERGY.
- 0203130002 CONSTRUCT A PINWHEEL, USING A ROUND PIECE OF CARDBOARD, KNITTING
- 0203130003 DEMONSTRATE THAT WIND WILL HAVE ENERGY OF MOTION BY USE OF PINWHEEL
- 0203130004 DEMONSTRATE THAT MOVING AIR HAS ENERGY, BY USING THE PINWHEEL PLACING IT IN FRONT OF AN ELECTRIC FAN.

NET CAN MAKE A BELL RING.

ELECTROMAGNET CAN MAKE A BELL RING, BY WIRING THE BELL INTO THE ELECTROMAGNET CIRCUIT.

TO CONSTRUCT A COMPLETE ELECTRICAL CIRCUIT, DEMONSTRATE AND GIVE AN ORAL REPORT
ALL COMPONENTS ARE CORRECTLY CONNECTED.

TO CONSTRUCT ELECTRICAL CIRCUIT AND ONE DEFECTIVE COMPONENT, DEMONSTRATE HOW ONE
PARTS WORKING PARTS FROM FUNCTIONING.

REQUIRED TO CAUSE MOVEMENT BY USING WATER AND A BOAT.

STORED ENERGY AND ENERGY OF MOTION.

CHANGED NOT MADE.

ION OF THE FOLLOWING IN A MATCHING TEST: SOLAR ENERGY, ENERGY, HEAT, AND

IR)
ENERGY.

ING A ROUND PIECE OF CARDBOARD, KNITTING NEEDLES, AND RUBBER BANDS.

LL HAVE ENERGY OF MOTION BY USE OF PINWHEEL.

AIR HAS ENERGY, BY USING THE PINWHEEL AND CAUSING IT TO TURN BY BLOWING ON IT OR BY
RIC FAN.

0203140 ENERGY TRANSFORMATION (BURNING CANDLE)
0203140001 DEMONSTRATE THAT WE GET LIGHT AND HEAT ENFRGY WHEN A F

0203185 ENERGY TRANSFORMATION (ELECTRIC)
0203185001 KNOW THAT ELECTRIC ENERGY CAN MAKE THINGS MOVE.

0203190 ENERGY TRANSFORMATION (ELEMENTS)
0203190001 DEMONSTRATE AND ANSWER QUESTIONS ABOUT ELFMENT BEING MA

0203195 ENERGY TRANSFORMATION (EVAPORATION)
0203195001 KNOW THAT THE CHANGE FROM LIQUID TO GAS IS CALLED EV
0203195002 NAME, AS EVAPORATION, THE PROCESS OF THE PERFUME DI
0203195003 DEMONSTRATE THAT LIQUID CHANGES TO A GAS, BY PLACING A DR
(EVAPORATE) WHILE THE ODOR REMAINS.
0203195004 KNOW THAT A SOLID CAN CHANGE INTO A GAS WITHOUT CHANGING FI
0203195005 DESCRIBE THAT A SOLID CAN CHANGE INTO A GAS WITHOUT CH
MOTHBALLS GET SMALLER OVER A PERIOD OF TIME. CH

0203200 ENERGY TRANSFORMATION (FOOD)
0203200001 INFER THAT ENFRGY FROM FOOD IS RESPONSIBLE FOR GROWTH AN

6 CANDLE)

PAGE

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AND HEAT ENFRGY WHEN A FUEL BURNS. (BY USE OF CANDLE).

(C)

MAKE THINGS MOVE.

(S)

ONS ABOUT ELFMENT BEING MADE ONLY OF ITSELF.

TION)

UID TO GAS IS CALLED EVAPORATION.

ESS OF THE PERFUME DISAPPEARING AS IT CHANGES FROM A LIQUID TO A GAS.

ES TO A GAS, BY PLACING A DROP OF PERFUME INTO A BOTTLE, CAUSING IT TO DISAPPEAR
AINS.

INTO A GAS WITHOUT CHANGING FIRST TO A LIQUID.

GE INTO A GAS WITHOUT CHANGING FIRST TO A LIQUID, BY OBSERVING THAT BITS OF
PERIOD OF TIME.

RESPONSIBLE FOR GROWTH AND THE ABILITY TO WORK.

0203200002 DEMONSTRATE THAT FOOD IS A FUEL BY USE OF BUTTER CANDLE

0203200003 DEMONSTRATE THAT FOOD HAS ENERGY, BY BURNING A PAT OF

0203200004 KNOW THAT FOOD HAS ENERGY.

0203210 ENERGY TRANSFORMATION (HEAT)

0203210001 KNOW THAT HEAT IS A FORM OF ENERGY.

0203210002 GIVE ONE EXAMPLE OF HEAT ENERGY DOING WORK.

0203210003 SHOW THAT HEATED AIR MOVES BY HOLDING PAPER STRIPS

0203210004 DEMONSTRATE THAT HEAT IS A FORM OF ENERGY, BY USING

0203210005 EXPLAIN HOW AN EXPERIMENT SHOWS THAT HEAT IS A FORM OF

0203210006 GIVEN OBJECTS, PREDICT WHICH OBJECT IS A HEAT CONDUCTOR AND TEST YOUR PREDICTIONS.

0203210007 DEMONSTRATE HOW APPLICATION OF HEAT BREAKS UP MOLECULE

0203225 ENERGY TRANSFORMATION (LIGHT AND SOUND)

0203225001 IDENTIFY DEFINITIONS OF LIGHTS AND SOUND AND HOW THEY

FL BY USE OF BUTTER CANDLE.

RGY, BY BURNING A PAT OF BUTTER THAT HAS BEEN FASHIONED INTO A CANDLE.

ENERGY.

GY DOING WORK.

HOLDING PAPER STRIPS OVER THE RADIATOR.

FORM OF ENERGY, BY USING CANDLES BELOW AN ALUMINUM FOIL PINWHEEL TO REVOLVE.

DWS THAT HEAT IS A FORM OF ENERGY.

OBJECT IS A HEAT CONDUCTOR AND WHICH IS NOT, EXPLAIN WHY YOU PREDICTED IN THAT WAY,

OF HEAT BREAKS UP MOLECULE OF SUGAR,

AND SOUND)

TS AND SOUND AND HOW THEY TRAVEL. (I.E., SPEED THROUGH AIR, WATER, SOLIDS, ETC.)

0203230 ENERGY TRANSFORMATION (LIQUID)

0203230001 KNOW THAT LIQUID CHANGES TO A GAS.

0203240 ENERGY TRANSFORMATION (MIXTURE)

0203240001 KNOW THAT A MIXTURE CONTAINS SUBSTANCES THAT DO NOT CHANGE

0203240002 DESCRIBE THAT A MIXTURE CONTAINS SUBSTANCES THAT DO NOT CHANGE
FILINGS AND THEN OBSERVING THE MIXTURE WITH A MAGNIFYING GLASS

0203240003 KNOW THAT A MIXTURE OF SUGAR AND IRON FILINGS CAN BE SEPARATED
MAGNET TO REMOVE THE IRON FILINGS.

0203240004 DEMONSTRATE THAT A MIXTURE OF SUGAR AND IRON FILINGS CAN BE SEPARATED
MAGNET TO REMOVE THE IRON FILINGS.

0203240005 KNOW THAT A MIXTURE OF SUGAR AND SAND CAN BE CHANGED INTO
DISSOLVING THE SUGAR, AND LEAVING THE SAND.

0203240006 DEMONSTRATE THAT A MIXTURE OF SUGAR AND SAND CAN BE CHANGED
WATER, DISSOLVING THE SUGAR, AND LEAVING THE SAND.

0203240007 KNOW HOW TO SEPARATE LIQUID FROM SAND, BY POURING THROUGH

0203240008 DEMONSTRATE HOW TO SEPARATE THE LIQUID FROM THE SAND, BY POURING
LEAVING THE SAND.

0203245 ENERGY TRANSFORMATION (MOLECULAR)

0203245001 KNOW THAT ODOR MUST BE DUE TO SOME OF THE TINIEST PARTS OF MO
NOSE.

0203245002 DESCRIBE THAT THE ODOR MUST BE DUE TO SOME OF THE TINIEST
MOTHBALLS TO HIS NOSE.

0203245003 DEMONSTRATE AND/OR ANSWER QUESTIONS ABOUT SUGAR AS A COMPOUND

A GAS.

RE)

SUBSTANCES THAT DO NOT CHANGE WHEN MIXED TOGETHER.

AINS SUBSTANCES THAT DO NOT CHANGE WHEN MIXED TOGETHER, BY MIXING SUGAR AND IRON
HE MIXTURE WITH A MAGNIFYING GLASS.

AND IRON FILINGS CAN BE SEPARATED INTO THE ORIGINAL SUBSTANCES, BY USING A
LINGS.

F SUGAR AND IRON FILINGS CAN BE SEPARATED INTO THE ORIGINAL SUBSTANCES, BY USING A
LINGS.

AND SAND CAN BE CHANGED INTO A NEW MIXTURE BY PUTTING THE MIXTURE IN WATER,
AVING THE SAND.

F SUGAR AND SAND CAN BE CHANGED INTO A NEW MIXTURE BY PUTTING THE MIXTURE IN
AND LEAVING THE SAND.

FRM SAND, BY POURING THROUGH THE MILK CARTON FILTER, LEAVING THE SAND.

THE LIQUID FROM THE SAND, BY POURING THE LIQUID THROUGH THE MILK CARTON FILTER,

ULAR)

DO SOME OF THE TINIEST PARTS OF MOTHBALLS SPREADING FROM THE SOLID MOTHBALLS TO HIS

BE DUE TO SOME OF THE TINIEST PARTS OF MOTHBALLS SPREADING FROM THE SOLID

ESTIONS ABOUT SUGAR AS A COMPOUND AND ITS THREE ELEMENTS.

- 0203245004 DEMONSTRATE AND/OR ANSWER QUESTIONS ABOUT THE BREAK UP
- 0203270 ENERGY TRANSFORMATION (SOLAR)
- 0203270001 STATE THE EARTH'S CHIEF SOURCE OF RADIANT ENERGY.
- 0203270002 EXPLAIN HOW WIND IS CAUSED BY HEAT FROM THE SUN.
- 0203270003 STATE THAT THERE IS STORED ENERGY IN A FUEL AND THAT THAT ONCE GREW IN SUNLIGHT.
- 0203270004 DEMONSTRATE THAT LIGHT (RADIANT ENERGY) CAN CHANGE INTO SUNLIGHT ONTO THE BULB OF A THERMOMETER, CAUSING THE
- 0203270005 KNOW THAT LIGHT (RADIANT ENERGY) CAN CHANGE INTO HEAT.
- 0203270006 USE A RADIOMETER TO DEMONSTRATE HOW LIGHT FROM THE SUN
- 0203275 ENERGY TRANSFORMATION (SUBSTANCE)
- 0203275001 KNOW THAT A SOLID DISSOLVED IN SOLUTION CAN BE RECOVERED A
- 0203275002 DEMONSTRATE THAT A SOLID DISSOLVED IN SOLUTION CAN BE HEATING THE WATER, CAUSING IT TO BOIL AWAY, LEAVING
- 0203275003 KNOW THAT A SUBSTANCE CAN BE BROKEN APART INTO OTHER
- 0203275004 DEMONSTRATE THAT A SUBSTANCE CAN BE BROKEN APART INTO COLLECTED ON A GLASS INVERTED OVER IT; ALSO CAUSING

QUESTIONS ABOUT THE BREAK UP OF A MOLECULE OF SUGAR.

AR)
SOURCE OF RADIANT ENERGY.

BY HEAT FROM THE SUN.

ENERGY IN A FUEL AND THAT THIS ENERGY WAS PROBABLY STORED BY PLANTS AND ANIMALS

RADIANT ENERGY) CAN CHANGE INTO HEAT, BY USING A MAGNIFYING GLASS AND BY FOCUSING
A THERMOMETER, CAUSING THE LIQUID TO RISE.

ENERGY) CAN CHANGE INTO HEAT.

STRATE HOW LIGHT FROM THE SUN CAN BE CHANGED TO ENERGY OF MOTION.

STANCE)

IN SOLUTION CAN BE RECOVERED AS A SOLID.

DISSOLVED IN SOLUTION CAN BE RECOVERED AS A SOLID BY DISSOLVING SALT IN WATER; THEN
LET IT TO BOIL AWAY, LEAVING NEARLY ORIGINAL AMOUNT OF SALT LEFT AS SOLID.

BE BROKEN APART INTO OTHER SUBSTANCES.

IT CAN BE BROKEN APART INTO OTHER SUBSTANCES, BY HEATING SUGAR, CAUSING STEAM TO
RISE; ALSO CAUSING MATERIAL LEFT TO TURN BLACK AND CHANGE.

0203285 ENERGY TRANSFORMATION (WATER)

0203285001 KNOW THAT MOVING WATER HAS ENERGY.

0203285002 DEMONSTRATE THAT MOVING WATER HAS ENERGY, BY POURING WATER TO TURN.

0203285003 USE A PINWHEEL TO DEMONSTRATE THAT MOVING WATER CAN MOVE OBJECTS.

0203285004 KNOW THAT THE WEIGHT OF WATER DOES NOT CHANGE AS WATER CHANGES STATE.

0203285005 DEMONSTRATE THAT THE WEIGHT OF WATER DOES NOT CHANGE AS WATER CHANGES STATE FROM ICE BEFORE AND AFTER THE ICE MELTS.

0203285006 KNOW THAT WATER CAN BE CHANGED QUICKLY FROM SOLID TO GAS BY BOILING.

0203285007 DEMONSTRATE THAT WATER CAN BE CHANGED QUICKLY FROM SOLID TO GAS BY BOILING.

0203300 FORCE AND MOTION

0203300001 GIVEN A 4 WHEELED CART AND RAMP, SHOW BY DEMONSTRATION WHICH FORCE CAUSES MOTION.

0203350 HUMAN BODY (EAR)

0203350001 IDENTIFY THESE PARTS OF THE EAR AND TELL WHAT THEY DO. OUTER EAR, EAR DRUM, HAMMER, ANVIL, COCHLEA, AND NERVE.

0203360 HUMAN BODY (EYE)

0203360001 IDENTIFY THESE PARTS OF THE EYE AND TELL WHAT THEY DO. EYELID, CORNEA, LENS, RETINA, AND OPTIC NERVE.

ENERGY.

HAS ENERGY, BY POURING WATER OVER THE PINWHEEL, CAUSING THE VANES OF THE WHEEL

THAT MOVING WATER CAN MOVE OBJECTS.

DOES NOT CHANGE AS WATER CHANGES FROM LIQUID TO SOLID.

OF WATER DOES NOT CHANGE AS WATER CHANGES FROM LIQUID TO SOLID BY WEIGHING A JAR OF
MELTS.

ED QUICKLY FROM SOLID TO GAS

CHANGED QUICKLY FROM SOLID TO GAS BY PLACING A PAN OF ICE OVER HIGH HEAT, CAUSING

AMP, SHOW BY DEMONSTRATION WHICH WAY THE CART PULLS EASIEST---UP THE RAMP OF DOWN.

EAR AND TELL WHAT THEY DO. OUTER EAR, MIDDLE EAR, INNER EAR, PINNA, EAR CANAL, EAR
AND NERVE.

EYE AND TELL WHAT THEY DO, EYELID, EYELASHES, IRIS, PUPIL, AND TEAR DUCT.

- 0203445 INSECTS
- 0203445001 RECOGNIZE WHEN A PICTURE OF AN INSECT IS IN AN ADULT, EGG, L
THEY OCCUR.
- 0203455 LIGHT
- 0203455001 GIVEN A SERIES OF PICTURES OF OBJECTS OR ACTUAL OBJECTS, RECOGNI
- 0203470 MACHINES (SIMPLE)
- 0203470001 IDENTIFY DEFINITIONS OF A SIMPLE MACHINE.
- 0203470002 TELL THE BENEFITS OF SIMPLE MACHINES.
- 0203470003 RECOGNIZE WHICH TYPE OF SIMPLE MACHINE (INCLINED PLANE, WEDGE,
- 0203470004 RECOGNIZE WHICH TYPE OF SIMPLE MACHINE (PULLEY, SCREW, OR WHEE
- 0203470005 DESCRIBE THE SIMPLE MACHINES YOU HAVE OBSERVED IN YOUR OWN HOM
- 0203525 PLANTS (CAPILLARY ACTION)
- 0203525001 KNOW THAT WATER CAN MOVE UP A SUBSTANCE.
- 0203525002 KNOW THAT THE FORCE THAT CAUSES THE LIQUID TO RISE UP THE BLO
- 0203525003 DEMONSTRATE HOW WATER CAN MOVE UP A SUBSTANCE, BY PLACING
AND ANOTHER IN WATER CONTAINING RED INK, CAUSING BOTH LIQUIDS

INSECT IS IN AN ADULT, EGG, LARVA OR PUPA STAGE. RECOGNIZE THE ORDER IN WHICH

OBJECTS OR ACTUAL OBJECTS, RECOGNIZE IF THE OBJECT PRODUCES OR REFLECTS LIGHT.

E MACHINE.

CHINES.

MACHINE (INCLINED PLANE, WEDGE, LEVER) IS BEING USED IN A GIVEN SITUATION.

MACHINE (PULLEY, SCREW, OR WHEEL) IS BEING USED IN A GIVEN SITUATION.

YOU HAVE OBSERVED IN YOUR OWN HOME.

SUBSTANCE.

THE LIQUID TO RISE UP THE BLOTTER IS SIMILAR TO THAT WHICH WORKS IN PLANTS.

UP A SUBSTANCE, BY RED INK, CAUSING BOTH PLACING ONE STRIP OF BLOTTER PAPER IN A GLASS OF WATER LIQUIDS TO RISE UP THE BLOTTERS.

- 0203525004 DESCRIBE THAT THE FORCE THAT CAUSES THE LIQUID TO RISE UP THE BLO
- 0203525005 KNOW THAT A SOLUTION WILL MOVE UP A PLANT STEM.
- 0203525006 DEMONSTRATE THAT A SOLUTION WILL MOVE UP A PLANT STEM BY PLACING A
AND BY OBSERVING THAT IN TIME THE COLOR APPEARS IN THE LEAVES.
- 0203545 PLANTS (GROWTH)
- 0203545001 KNOW THAT ALL GREEN PLANTS MAKE FOOD.
- 0203545002 DEFINE CHLOROPHYLL.
- 0203545003 MAKE DISPLAY OF PLANTS THAT DO NOT MAKE FOOD.
- 0203555 PLANTS (MOLDS)
- 0203555001 NAME THE THINGS GROWING AS MOLDS, WHICH ARE FUNGI PLANTS ON MOLDED
- 0203560 PLANTS (NEEDS)
- 0203560001 KNOW THE CONDITIONS UNDER WHICH A PLANT THAT IS NOT GREEN WILL
- 0203560002 DEMONSTRATE CONDITIONS UNDER WHICH PLANT THAT IS NOT GREEN WILL
BREAD AND TOAST WETTED WITH DIFFERENT AMOUNTS OF WATER CAUSING NON
- 0203560003 KNOW THAT PLANTS FLOODED WITH WATER NOT ONLY HAVE TOO MUCH WATER
SOIL, AND IN A SENSE ARE DROWNING IN WATER.

USES THE LIQUID TO RISE UP THE BLOTTER IS SIMILAR TO THAT WHICH WORKS IN PLANTS
UP A PLANT STEM.

L MOVE UP A PLANT STEM BY PLACING A CUT CELERY STALK INTO WATER CONTAINING DYE,
HE COLOR APPEARS IN THE LEAVES.

FOOD.

NOT MAKE FOOD.

S, WHICH ARE FUNGI PLANTS ON MOLDED BREAD.

A PLANT THAT IS NOT GREEN WILL GRO

ICH PLANT THAT IS NOT GREEN WILL GROW PLACING IN DIFFERENT LOCATIONS FRESH
FERENT AMOUNTS OF WATER CAUSING NONGREEN PLANT GROWTH ON SOME.

AT ERIC T ONLY HAVE TOO MUCH WATER, BUT ARE NOT GETTING ENOUGH OXYGEN FROM THE
NG ATER.

- 0203560004 DESCRIBE THAT PLANTS FLOODED WITH WATER NOT ONLY HAVE TOO MUCH WATER
THE SOIL, AND IN A SENSE ARE DROWNING IN WATER.
- 0203560005 KNOW THAT GROWING PLANTS MAY DIE FROM TOO MUCH WATER AS WELL AS FROM
LACK OF WATER.
- 0203560006 DEMONSTRATE THAT PLANTS MAY DIE FROM TOO MUCH WATER, OR FROM COMPLETE
DROWNING ONE, WETTING ONE AND DROWNING ONE.
- 0203560007 KNOW THE EFFECT OF SUNLIGHT AND LACK OF SUNLIGHT ON GREEN LEAVES
- 0203560008 DEMONSTRATE THE EFFECT OF SUNLIGHT AND LACK OF SUNLIGHT ON GREEN LEAVES
PAPER FOR TWO DAYS, AND THEN OBSERVING THE PALE COLOR OF THE COVERED
LEAVES.
- 0203570 PLANTS (PARTS)
- 0203570001 KNOW THE DIFFERENT PARTS OF A FLOWER AS PETALS, STAMENS, POLLEN, PISTIL, AND
PISTIL.
- 0203570002 NAME PARTS OF A FLOWER, AS PETALS, STAMENS, POLLEN, PISTIL, AND
PISTIL.
- 0203570003 IDENTIFY DIFFERENT PARTS OF A FLOWER BY OBSERVING WITH A MAGNIFYING
GLASS.
- 0203570004 KNOW THE DIFFERENCE BETWEEN PARTS OF A PLANT THAT LOOK GREEN (LEAVES)
AND BROWN (ROOTS).
- 0203570005 DISTINGUISH BETWEEN PARTS OF A PLANT THAT LOOK GREEN (LEAVES) AND
BROWN (ROOTS).
- 0203570006 KNOW THAT THE GREEN COLOR IN THE LEAVES CAN BE REMOVED.
- 0203570007 DEMONSTRATE THAT GREEN COLOR IN THE LEAVES CAN BE REMOVED BY
CAUSING ALCOHOL TO TURN GREEN; THAT NO COLOR OCCURS WHEN ROOTS ARE
REMOVED BY SCISSORS.

PLANTS DROWNED WITH WATER NOT ONLY HAVE TOO MUCH WATER, BUT ARE NOT GETTING ENOUGH OXYGEN FROM
 ARE DROWNING IN WATER.

PLANTS MAY DIE FROM TOO MUCH WATER AS WELL AS FROM COMPLETE LACK OF WATER.

PLANTS MAY DIE FROM TOO MUCH WATER, OR FROM COMPLETE LACK OF WATER, BY USING THREE POTS OF
 ONE, WETTING ONE AND DROWNING ONE, NOTING OUTCOME.

EFFECTS OF LIGHT AND LACK OF SUNLIGHT ON GREEN LEAVES.

EFFECTS OF SUNLIGHT AND LACK OF SUNLIGHT ON GREEN LEAVES, BY COVERING SOME LEAVES WITH CARBON
 WHEN OBSERVING THE PALE COLOR OF THE COVERED LEAVES.

IDENTIFICATION OF A FLOWER AS PETALS, STAMENS, POLLEN, PISTIL, AND OVULES.

IDENTIFICATION OF PETALS, STAMENS, POLLEN, PISTIL, AND OVULES.

IDENTIFICATION OF A FLOWER BY OBSERVING WITH A MAGNIFYING GLASS.

IDENTIFICATION OF PARTS OF A PLANT THAT LOOK GREEN (LEAVES) AND PARTS THAT DO NOT LOOK GREEN (ROOTS).

IDENTIFICATION OF A PLANT THAT LOOK GREEN (LEAVES) AND PARTS THAT DO NOT LOOK GREEN (ROOTS).

REMOVAL OF THE LEAVES CAN BE REMOVED.

REMOVAL OF GREEN IN THE LEAVES CAN BE REMOVED BY SOAKING GREEN LEAVES IN WARMED ALCOHOL
 GREEN; THAT NO COLOR OCCURS WHEN ROOTS ARE TREATED IN SAME WAY.

0203575 PLANTS (ROOTS)

0203575001 KNOW THE DIFFERENCE BETWEEN ROOT HAIRS ON THE MAIN ROOT OF A GROWING
FOOD MARKET.

0203575002 IDENTIFY ROOT HAIRS ON THE MAIN ROOT OF A GROWING RADISH PLANT, AND
OBSERVING WITH A MAGNIFYING GLASS.

0203615 REPTILES (EXTINCT)

0203615001 TELL WHAT EXTINCT MEANS.

0203615002 TELL WHY DINOSAURS ARE EXTINCT.

0203625 SOIL

0203625001 EXPLAIN 'THE EARTH'S GREATEST TREASURES ARE IN THE SOIL.'

0203625002 DO RESEARCH IN LIBRARY AND IN COMMUNITY TO FIND OUT HOW TO CONSERVE

0203625003 KNOW THAT DIFFERENT KINDS OF SOILS HOLD VARYING AMOUNTS OF WATER.

0203625004 DEMONSTRATE DIFFERENT KINDS OF SOILS HOLDING VARYING AMOUNTS OF
POURING EQUAL AMOUNTS OF WATER; OBSERVING DIFFERENT AMOUNTS OF

0203625005 KNOW THAT HUMUS SOIL HOLDS MORE WATER THAN GARDEN SOIL AND THAT GA

0203625006 IDENTIFY THAT HUMUS SOIL HOLDS MORE WATER THAN GARDEN SOIL AND TH

0203625007 KNOW THAT GARDEN SOIL CONTAINS WATER, A LIQUID.

0203625008 DEMONSTRATE THAT GARDEN SOIL CONTAINS A LIQUID (WATER) BY HEATING
DROPS OF LIQUID TO COLLECT ON THE INSIDE OF THE POT.

HAIRS ON THE MAIN ROOT OF A GROWING RADISH PLANT, AND ON A RADISH PLANT FROM
ROOT OF A GROWING RADISH PLANT, AND ON A RADISH PLANT FROM A FOOD MARKET,

MEASURES ARE IN THE SOIL.

COMMUNITY TO FIND OUT HOW TO CONSERVE SOIL.

SOILS HOLD VARYING AMOUNTS OF WATER.

SOILS HOLDING VARYING AMOUNTS OF WATER BY PLACING DIFFERENT TYPE INTO TIN CAN
OBSERVING DIFFERENT AMOUNTS OF WATER PASSING THROUGH SOIL.

LESS WATER THAN GARDEN SOIL AND THAT GARDEN SOIL HOLDS MORE WATER THAN SAND.

HOLDS MORE WATER THAN GARDEN SOIL AND THAT GARDEN SOIL HOLDS MORE WATER THAN SAND.

WATER, A LIQUID.

RETAINS A LIQUID (WATER) BY HEATING SOIL IN A COVERED GLASS COOKING POT, CAUSING
EVAPORATION OF THE POT.

- 0203625009 KNOW THAT GARDEN SOIL CONTAINS AIR.
- 0203625010 DEMONSTRATE THAT GARDEN SOIL CONTAINS AIR, BY POURING WATER SLOWLY FROM THE SOIL UP THROUGH THE WATER AND OUT INTO THE AIR.
- 0203625011 KNOW THAT GARDEN SOIL CONTAINS MATERIALS THAT WILL PASS THROUGH A FILTER.
- 0203625012 DEMONSTRATE THAT DISSOLVED MATERIALS IN WATER-SOIL MIXTURE CAN BE COLLECTED THROUGH FILTER INTO A SHALLOW GLASS PAN, ALLOWING THE WATER TO EVAPORATE.
- 0203625013 KNOW THAT THE SUBSTANCES LEFT AFTER EVAPORATION OF WATER-SOIL MIXTURE ARE SOLIDS.
- 0203625014 NAME, AS MINERALS, THE SUBSTANCES LEFT FROM EVAPORATION OF THE WATER-SOIL MIXTURE.
- 0203625015 KNOW THAT DISSOLVED MATERIALS IN THE WATER-SOIL MIXTURE CAN BE RECOVERED BY EVAPORATION.
- 0203625016 DEMONSTRATE THAT SOIL CONTAINS MATERIALS THAT WILL PASS THROUGH A FILTER, CAUSING THE CLOUDY LIQUID TO BECOME CLEAR.
- 0203630 SOLAR SYSTEM
- 0203630001 STATE THE 'BIG IDEA' OF THIS UNIT---ALL THE PLANETS AND THEIR MOONS.
- 0203630002 USING A PICTURE SHOWING POSITION OF PLANETS AND THE SUN, TELL WHICH PLANET IS FURTHER FROM THE SUN THAN THE EARTH.
- 0203630003 NAME THE PLANETS IN ORDER OF THEIR DISTANCE FROM THE SUN.
- 0203630004 EXPLAIN WHY WE THINK THAT EARTH IS THE ONLY PLANET ON WHICH WE KNOW OF LIFE.
- 0203630005 TELL WHICH PLANET HAS MANY GREEN PLANTS AND MANY ANIMALS.

IR.

RETAINS AIR, BY POURING WATER SLOWLY OVER SOIL IN A JAR, CAUSING BUBBLES TO RISE
AND OUT INTO THE AIR.

MATERIALS THAT WILL PASS THROUGH A FILTER.

MATERIALS IN WATER-SOIL MIXTURE CAN BE RECOVERED, BY POURING CLOUDY WATER
IN A SHALLOW GLASS PAN, ALLOWING LIQUID TO EVAPORATE, LEAVING SUBSTANCES.

AFTER EVAPORATION OF WATER-SOIL MIXTURE ARE CALLED MINERALS.

SUBSTANCES LEFT FROM EVAPORATION OF THE WATER-SOIL MIXTURE.

THE WATER-SOIL MIXTURE CAN BE RECOVERED.

MATERIALS THAT WILL PASS THROUGH A FILTER, BY MIXING GARDEN SOIL AND WATER; THEN
POURING THE CLOUDY LIQUID TO PASS THROUGH.

1. ALL THE PLANETS AND THEIR MOONS GET THEIR ENERGY FROM THE SUN.

2. OF PLANETS AND THE SUN, TELL WHICH TWO PLANETS RECEIVE MORE HEAT FROM THE SUN

3. AT THEIR DISTANCE FROM THE SUN.

4. WHICH IS THE ONLY PLANET ON WHICH WE COULD LIVE.

5. NAME THE PLANETS AND MANY ANIMALS.

- 0203630006 TELL DIFFERENCE BETWEEN ROTATION AND REVOLUTION OF THE EARTH.
- 0203630007 RECOGNIZE HOW ROTATION AND REVOLUTION CAUSE CHANGES IN LENGTH OF EARTH.
- 0203630008 USE A PLANETARIUM AND KNOWLEDGE GAINED FROM INDIVIDUAL STUDY TO DETERMINE FROM THE SUN, AND ITS REVOLUTION AND ROTATION DETERMINE WHAT IT IS.
- 0203630009 USING A PICTURE SHOWING POSITION OF PLANETS AND THE SUN, TELL WHICH HEAT FROM THE SUN.
- 0203630010 DEMONSTRATE THE PATH OF THE MOON, BY USING PEOPLE AS MODELS OF MOON AROUND THE EARTH SO THAT THE STUDENT-MOON ALWAYS FACES THE EARTH.
- 0203630011 KNOW THE PATH OF THE MOON IN RELATIONSHIP TO THE SUN AND EARTH.
- 0203630012 DESCRIBE THAT ONE SIDE OF THE MOON ALWAYS FACES THE EARTH BUT DEMONSTRATE THE WAY THE STUDENT FACES AS THE PATH OF THE MOON IS.
- 0203630013 KNOW THAT ONE SIDE OF THE MOON ALWAYS FACES THE EARTH BUT DOES NOT.
- 0203630014 USE A PLANETARIUM AND SHOW HOW AND WHY THE MOON APPEARS TO CHANGE.
- 0203630015 DESCRIBE SIZE, SHAPE, COLOR, STATE OF MATTER, AND TEMPERATURE.
- 0203630016 IF GIVEN ACCESS TO TELESCOPE, COMPARE HOW THE MOON LOOKS THROUGH A TELESCOPE.
- 0203630017 USE MATHEMATICAL EQUATION TO SHOW HOW THE MASS OF MOON AFFECTS THE GRAVITY.

0203640

SOUND

0203640001

DEMONSTRATE HOW SOUNDS WILL BE DIFFERENT WHEN MADE BY DIFFERENT OBJECTS.

ION AND REVOLUTION OF THE EARTH.

EVOLUTION CAUSE CHANGES IN LENGTH OF DAYLIGHT AND TYPE OF SEASON ON GIVEN AREA OF

GE GAINED FROM INDIVIDUAL STUDY TO DISCUSS HOW THE SIZE OF A PLANET, ITS POSITION
ION AND ROTATION DETERMINE WHAT IT IS LIKE.

ION OF PLANETS AND THE SUN, TELL WHICH PLANET HAS MOST NEARLY THE SAME AMOUNT OF

MOON, BY USING PEOPLE AS MODELS OF THE MOON, EARTH, AND SUN, AND BY MOVING THE
THE STUDENT-MOON ALWAYS FACES THE EARTH.

RELATIONSHIP TO THE SUN AND EARTH.

MOON ALWAYS FACES THE EARTH BUT DOES NOT ALWAYS FACE THE SUN, BY OBSERVING TH
PATH OF THE MOON IS DEMONSTRATED.

N ALWAYS FACES THE EARTH BUT DOES NOT ALWAYS FACE THE SUN.

W AND WHY—THE MOON APPEARS TO CHANGE.

STATE OF MATTER, AND TEMPERATURE OF SUN AND EARTH.

COMPARE HOW THE MOON LOOKS THROUGH A TELESCOPE WITH HOW IT LOOKS TO THE EYE.

SHOW HOW THE MASS OF MOON AFFECTS THE WEIGHT OF AN OBJECT ON THE MOON.

0203650 SYSTEMS AND SUBSYSTEMS

0203650001 IDENTIFY DEFINITIONS AND EXAMPLES OF SYSTEMS.

0203650002 NAME THE PARTS OF A SOLUTION THAT ARE SUBSYSTEMS OF THAT SOLUTION.

0203650003 NAME THE PARTS OF A FILTERING SYSTEM AND TELL WHAT THEY DO.

0203650004 IDENTIFY DEFINITIONS AND EXAMPLES OF SUBSYSTEMS.

0204005 ADAPTATION (ANIMALS)

0204005001 KNOW HOW THE EMBRYONIC STRUCTURES ARE A SPECIAL ADAPTATION TO

0204005003 GIVEN DESCRIPTION OR PICTURE OF THE COLORING OF ANIMAL AND ANIMAL'S
WOULD SURVIVE BY BLENDING WITH ITS HABITAT.

0204005004 TELL HOW BODY COVERINGS HELP ANIMALS TO ADAPT TO CERTAIN CLIMATES.

0204005005 MATCH ILLUSTRATIONS OF FOLLOWING ANIMAL STRUCTURES WITH TASK FOR WHICH
FEET, HOOFS, TOES, WINGS, FINS.

0204005006 MATCH MOUTH ADAPTATIONS TO KINDS OF FOOD TO BE GATHERED BY AN ANIMAL

0204005007 MATCH BREATHING STRUCTURE (LUNGS OR GILLS) OF COMMON ANIMAL TO HABITAT

0204005008 MATCH DEFINITIONS WITH FOLLOWING TERMS: BIRTH, DEATH, SURVIVE, ADAPTATION

0204010 ADAPTATION (BEHAVIOR)

0204010001 KNOW THAT BEHAVIOR MAY BE INBORN OR LEARNED.

0204010002 KNOW THAT ALL ORGANISMS HAVE INBORN BEHAVIOR THAT ADAPTS THEM TO THEIR

0204010003 DEMONSTRATE HOW ORGANISMS BEHAVE BECAUSE OF THEIR INBORN BEHAVIOR ADAPTS

0204020 ADAPTATION (FOOD)

0204020001 KNOW THAT LIVING THINGS NEED A FOOD SUPPLY.

0204020002 KNOW THAT AN ORGANISM NEEDS FOOD FOR GROWTH.

S ARE A SPECIAL ADAPTATION TO ENVIRONMENT.

THE COLORING OF ANIMAL AND ANIMAL'S HABITAT, EXPLAIN WHETHER OR NOT ANIMAL
ITS HABITAT.

IMALS TO ADAPT TO CERTAIN CLIMATES.

ANIMAL STRUCTURES WITH TASK FOR WHICH THEY ARE BEST SUITED: CLAWS, WEBBED
OF FOOD TO BE GATHERED BY AN ANIMAL.

OR GILLS) OF COMMON ANIMAL TO HABITAT FOR WHICH IT IS BEST SUITED.

TERMS: BIRTH, DEATH, SURVIVE, ADAPT, AND EXTINCT.

OR LEARNED.

ORN BEHAVIOR THAT ADAPTS THEM TO THEIR ENVIRONMENT.

E OF THEIR INBORN BEHAVIOR ADAPT TO VARIOUS ENVIRONMENTS.

OOD SUPPLY.

FOR GROWTH.

| | | |
|------------|---|--------|
| 0204025 | ADAPTATION (HABITAT) | |
| 0204025001 | KNOW THAT A LIVING THING REPRODUCES ITSELF AND DEVELOPS | IN A G |
| 0204025002 | KNOW THAT DIFFERENT ANIMALS ARE ADAPTED TO DIFFERENT | SPECIA |
| 0204025003 | KNOW THAT LIVING THINGS ARE DEPENDENT ON A PARTICULAR | ENVIRO |
| 0204025004 | KNOW WHY THE LIFE CYCLE OF AN ANIMAL IS ADAPTED TO THE | SPECIA |
| 0204025005 | KNOW THAT A LIVING THING IS DEPENDENT ON ALL THE ENVIRONMENT. | CONDIT |
| 0204025006 | KNOW THAT THE ENVIRONMENT OF A LIVING THING INCLUDES ALL SURROU DIFFERENT PLANTS HAVE ADOPTED TO DIFFERENT ENVIRONMENTS. | |
| 0204025007 | TELL WHAT MOST ORGANISMS NEED TO STAY ALIVE. | |
| 0204025008 | KNOW HOW LIVING THINGS CAPTURE MATTER FROM THE | ENVIRO |
| 0204025009 | KNOW HOW A LIVING THING MAY BE ADAPTED TO DIFFERENT | ENVIRO |
| 0204025010 | GIVE THE DEFINITION OF HABITAT. | |
| 0204025011 | IDENTIFY DEFINITION OF HABITAT. MATCH ORGANISMS WITH THEY ARE BEST ADAPTED. | PICTUR |
| 0204025012 | SHOW UNDERSTANDING OF ADAPTATION TO ENVIRONMENT BY DIFFERENT ENVIRONMENTS. | GIVING |
| 0204030 | ADAPTATION (MAN) | |
| 0204030001 | KNOW HOW KNOWLEDGE OF CONCEPTS, WHETHER OBTAINED BY TO KEEPING MAN ALIVE. | TRIAL |

PRODUCES ITSELF AND DEVELOPS IN A GIVEN ENVIRONMENT.

ARE ADAPTED TO DIFFERENT SPECIAL ENVIRONMENTS.

DEPENDENT ON A PARTICULAR ENVIRONMENT.

AN ANIMAL IS ADAPTED TO THE SPECIAL ENVIRONMENT, OR HABITAT,

DEPENDENT ON ALL THE CONDITIONS AND ALL OTHER LIVING THINGS IN ITS

A LIVING THING INCLUDES ALL SURROUNDING CONDITIONS THAT AFFECT ITS GROWTH.
D TO DIFFERENT ENVIRONMENTS.

D TO STAY ALIVE.

RE MATTER FROM THE ENVIRONMENT AND RETURN IT TO THE ENVIRONMENT.

BE ADAPTED TO DIFFERENT ENVIRONMENTS.

AT.

AT. MATCH ORGANISMS WITH PICTURES, DESCRIPTIONS, OR NAMES OF HABITATS TO WHICH

TION TO ENVIRONMENT BY GIVING TWO EXAMPLES OF LIVING THINGS NEEDING SPECIAL AND

TS, WHETHER OBTAINED BY TRIAL AND ERROR OR BY INVESTIGATION, HAS BEEN ESSENTIAL

0204030002 EXPLAIN HOW, BY USING HIS BRAIN TO MODIFY THE ENVIRONMENT WHICH HE IS NOT STRUCTURALLY ADAPTED.

0204030003 ENGAGE IN A PROJECT AND DEMONSTRATE, USING A VARIETY OF MEDIA, SCIENCE CONCEPTS, HAS BEEN ALTERED BY HUMAN ACTIVITIES.

0204035 ADAPTATION (PLANTS)

0204035001 MATCH DESCRIPTIONS OR DRAWINGS OF SEEDS WITH MEANS BY WHICH PLANT TO ANOTHER PLANT.

0204045 AIR

0204045001 KNOW THAT NITROGEN IS THE MOST PLENTIFUL GAS IN THE AIR.

0204045002 KNOW THAT ABOUT ONE FIFTH OF AIR IS OXYGEN.

0204045003 KNOW WARM AIR IS FORCED UPWARD BY COOLER AIR SURROUNDING IT.

0204045004 KNOW HOW AIR CAN BE COLLECTED AND CLEANED BY THE DISPLACEMENT METHOD.

0204055002 KNOW HOW ANIMALS HAVE BEEN ADAPTED TO MEET THE NEEDS OF THEIR ENVIRONMENT.

0204060 BIRDS

0204060001 DESCRIBE A CHICKEN EGG, BY OBSERVING WITH A HAND LENS THE OUTSIDE OF THE EGG.

0204060002 IDENTIFY PARTS OF THE CHICKEN EGG AS SHELL, MEMBRANE, YOLK, AND WHEN IT JOINS WITH SPERM.

MODIFY THE ENVIRONMENT, MAN IS ABLE TO LIVE IN ENVIRONMENTS TO
D.
USING A VARIETY OF MEDIA, HOW PHYSICAL ENVIRONMENT IN AT LEAST TWO AREAS O
BY HUMAN ACTIVITIES.

EDS WITH MEANS BY WHICH THEY TRAVEL (WIND, WATER, OR ANIMALS) FROM PARENT

TIFUL GAS IN THE AIR.

OXYGEN.

COOLER AIR SURROUNDING IT.

LEANED BY THE DISPLACEMENT METHOD.

TO MEET THE NEEDS OF THEIR ENVIRONMENT.

G WITH A HAND LENS THE OUTSIDE AND INSIDE OF THE EGG.

S , MEMBRANE, YOLK, AND WHITE SPECK ON THE YOLK, WHICH BECOMES EMBRYO

- 0204060003 KNOW WHY IN BOTH STRUCTURE AND BEHAVIOR (MIGRATION) THE DUCK IS AD
- 0204060004 TELL OR ILLUSTRATE (BY DRAWING, ETC.) HOW A DUCK IS ADAPTED FOR
THE EGG IS ADAPTED TO THE LIFE OF THE EMBRYO.
- 0204065 CELLS
- 0204065001 KNOW THAT LIVING THINGS ARE MADE OF CELLS. THEY HAVE A COMPLEX S
- 0204065002 KNOW HOW LIVING THINGS GROW BY CELL DIVISION.
- 0204065003 KNOW THAT THE STRUCTURE OF CELLS VARIES ACCORDING TO THE FUNCTIONS
- 0204065004 DESCRIBE AS MANY DIFFERENCES AS YOU CAN WHEN OBSERVING PLANT AND
- 0204065005 IDENTIFY FROM LIST WHICH NAMES CELL STRUCTURES, OR FROM PICTURES
TRAITS WHICH ARE PRESENT ONLY IN PLANT CELLS, ONLY IN ANIMAL CE
- 0204065006 GIVEN SIMPLE SLIDE AND MICROSCOPE, CLASSIFY OBJECTS ON SLIDE AS
BUBBLES, DIRT, CRYSTALS).
- 0204065007 ESTABLISH A RELATIONSHIP BETWEEN THE MOLD ON BREAD TO THE ACTION
CELLS.
- 0204075 CLASSIFY (ANIMALS)
- 0204075001 ON BASIS OF DISTINCT CHARACTERISTICS, CLASSIFY COMMON ANIMALS A
AMPHIBIANS, REPTILES, BIRDS, OR MAMMALS.
- 0204075002 GIVEN A LIST OF 12 WORDS IN WHICH ARE MAMMALS AND BIRDS, PUT ALL W
TO EACH GROUP.
- 0204075003 KNOW THAT EVERY SPECIES OF ANIMAL HAS A LIFE CYCLE IN WHICH THE
CHANGES IN STRUCTURE FROM EGG TO ADULT) IS REPEATED OVER AND OVER

RE AND BEHAVIOR (MIGRATION) THE DUCK IS ADAPTED TO ITS ENVIRONMENT.

DRAWING, ETC.) HOW A DUCK IS ADAPTED FOR FLIGHT, HATCHING YOUNG FROM EGGS, AND HOW
THE LIFE OF THE EMBRYO.

ARE MADE OF CELLS. THEY HAVE A COMPLEX STRUCTURE.

GROW BY CELL DIVISION.

FUNCTION OF CELLS VARIES ACCORDING TO THE FUNCTIONS OF THE CELLS IN THE ORGANISM.

DIFFERENCES AS YOU CAN WHEN OBSERVING PLANT AND ANIMAL CELLS UNDER MICROSCOPE.

NAMES CELL STRUCTURES, OR FROM PICTURES OR SLIDES OF LIVING TISSUE, THOSE CELLULAR
ONLY IN PLANT CELLS, ONLY IN ANIMAL CELLS, OR IN BOTH.

UNDER MICROSCOPE, CLASSIFY OBJECTS ON SLIDE AS CELLS OR OBJECTS WHICH ARE NOT CELLS (E.G., AIR

COMPARE BETWEEN THE MOLD ON BREAD TO THE ACTION OF BACTERIA OF DECAY ON DEAD PLANT AND ANIMAL

CHARACTERISTICS, CLASSIFY COMMON ANIMALS AS BEING EITHER WORMS, INSECTS, SHELLFISH, FISH,
BIRDS, OR MAMMALS.

LIST IN WHICH ARE MAMMALS AND BIRDS, PUT ALL WORDS IN CORRECT GROUP AND ADD AT LEAST 2 WORDS

WHICH ANIMAL HAS A LIFE CYCLE IN WHICH THE SAME PATTERN OF DEVELOPMENT (SUCCESSIVE
STAGES TO ADULT) IS REPEATED OVER AND OVER AGAIN.

- 0204075004 CHOOSE AN ANIMAL, IDENTIFY ITS STRUCTURE AND BEHAVIOR (INBORN A
- 0204090 CLASSIFY (MATTER)
- 0204090001 KNOW THAT MATTER IS OF MANY KINDS.
- 0204090002 RECOGNIZE A SOLID, A LIQUID, AND A GAS ON THE BASIS OF SHAPE.
- 0204090003 DESCRIBE HOW IT CAN BE SHOWN THAT MATTER HAS WEIGHT.
- 0204090004 DESCRIBE HOW IT CAN BE SHOWN THAT MATTER TAKES UP SPACE.
- 0204090005 KNOW THAT MATTER IS NOT ALL MOLECULAR.
- 0204090006 KNOW THAT A SUBSTANCE MAY BE RECOGNIZED BY ITS PROPERTIES
- 0204090007 KNOW THAT SUBSTANCES HAVE PROPERTIES THAT DISTINGUISH THEM FROM
- 0204095 CLASSIFY (PLANTS)
- 0204095001 GIVEN DESCRIPTION OR EXAMPLE OF A PLANT, CLASSIFY IT INTO ONE OF
FERNS OR SEED PLANT (INCLUDING PLANTS WITH CONES AND PLANTS WITH
- 0204105 CLASSIFY (PLANT AND ANIMAL CELLS)
- 0204105001 DESCRIBE AS MANY DIFFERENCES AS YOU CAN WHEN OBSERVING PLANT AND

ATURE AND BEHAVIOR (INBORN AND LEARNED), AND GIVE ONE EXAMPLE OF EACH,

AS ON THE BASIS OF SHAPE.

FTER HAS WEIGHT.

FTER TAKES UP SPACE.

R.

ZED BY ITS PROPERTIES.

THAT DISTINGUISH THEM FROM ONE ANOTHER.

ANT, CLASSIFY IT INTO ONE OF THE MAJOR GROUPS: SIMPLE PLANTS, MOSSES,
S WITH CONES AND PLANTS WITH FLOWERS).

CA N OBSERVING PLANT AND ANIMAL CELLS UNDER THE MICROSCOPE.

0204115 ECOLOGY

0204115001 KNOW THAT ECOLOGY IS THE STUDY OF THE RELATIONSHIP OF LIVING
ENVIRONMENT.

0204115002 DO INDEPENDENT RESEARCH TO FIND OUT WHAT ECOLOGY IS AND HOW IT

0204115003 USING THE OVERHEAD PROJECTOR, SHOW THREE AREAS IN WHICH NATURAL

0204115004 TELL, OR DEVISE AN INVESTIGATION TO SHOW HOW RETURNING THE MAT

0204115005 PROVIDED WITH DATE CONCERNING WILDLIFE CONSERVATION IN THE EVE
SUCH A PROGRAM.

0204125 ENERGY TRANSFORMATION

0204125001 KNOW THAT WHEN ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE TOT

0204130 ENERGY TRANSFORMATION (AIR)

0204130001 KNOW THAT HEATED AIR EXPANDS, COOLED AIR CONTRACTS,

0204130002 DEMONSTRATE THAT WARMED AIR EXPANDS, BY CAUSING A DEFLATE
OVER A BOTTLE OPENING AND THE BOTTLE IS HEATED.

0204130003 DEMONSTRATE HOW TO COLLECT CLEAN AIR, BY RUBBLING AIR THROUGH
INVERTED BOTTLE.

0204140 ENERGY TRANSFORMATION (BURNING CANDLE)

0204140001 STATE THAT ENERGY CAN BE CHANGED FROM ONE FORM TO ANOTHER

STUDY OF THE RELATIONSHIP OF LIVING THINGS TO EACH OTHER AND TO THEIR NONLIVING

FIND OUT WHAT ECOLOGY IS AND HOW IT AFFECTS US.

SHOW THREE AREAS IN WHICH NATURAL RESOURCES HAVE BEEN WASTED.

EXPLAIN TO SHOW HOW RETURNING THE MATTER TO THE ENVIRONMENT IS HELPFUL.

DISCUSS WILDLIFE CONSERVATION IN THE EVERGLADES, ORALLY DESCRIBE A PLAN TO ACCOMPLISH

EXPLAIN HOW ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF ENERGY REMAINS UNCHANGED.

EXPLAIN HOW COOLED AIR CONTRACTS.

EXPLAIN HOW AIR EXPANDS, BY CAUSING A
BOTTLE TO INFLATE WHEN THE BOTTLE IS HEATED.

EXPLAIN HOW A DEFLATED BALLOON TO INFLATE WHEN THE BALLOON IS PLACED

EXPLAIN HOW CLEAN AIR, BY BUBBLING AIR

THROUGH A PAN OF WATER, DISPLACING WATER FROM AN

EXPLAIN (BY BURNING CANDLE)

EXPLAIN HOW ENERGY CHANGES FROM ONE FORM TO

ANOTHER (BY DEMONSTRATION OF BURNING CANDLE).

0204140002 WHEN PROVIDED WITH APPROPRIATE MATERIALS TO START A FIRE, OBSERVE
LEAST ONE PARAGRAPH BASED ON OBSERVATIONS.

0204140003 DESCRIBE THAT A CHEMICAL CHANGE IS OCCURRING AS A CANDLE BURNS, THE
GIVEN OFF.

0204140004 DEMONSTRATE THAT A CANDLE BURNS AT CONSTANT RATE, BY PLACING HA
TIME IT TAKES FOR THE PARAFFIN TO DISAPPEAR.

0204140005 DEMONSTRATE THAT CARBON DIOXIDE FORMS WHEN A CANDLE BURNS, BY
CONTAIN CLEAR LIMEWATER, CAUSING THE LIMEWATER TO TURN CLOUDY WHEN

0204145 ENERGY TRANSFORMATION (CARBON DIOXIDE)

0204145001 UNDERSTAND THAT EXHALED AIR CONTAINS CARBON DIOXIDE.

0204145002 SHOW THAT OXYGEN AND CARBON DIOXIDE HAVE DIFFERENT PROPERTIES

0204145003 DESCRIBE THAT CARBON DIOXIDE CAUSES LIMEWATER TO TURN TO A MILKY CO

0204145004 DISTINGUISH BETWEEN AIR FROM HIS LUNGS AND AIR FROM THE ATMOSPHERE
COMPARING RESULTS WITH A SIMILAR TEST WHERE AIR FROM A BICYCLE PU

0204145005 DEMONSTRATE AND ANSWER QUESTIONS ABOUT THE PROPERTIES OF CARBON
AND ONE BLOWN UP BY A PERSON.

0204145006 DEMONSTRATE THAT THE AIR FROM LUNGS CONTAINS CARBON DIOXIDE, B
INTO LIMEWATER.

0204145007 KNOW THAT OXYGEN GIVES ENERGY WHEN IT COMBINES CHEMICALLY

0204150 ENERGY TRANSFORMATION (CHEMICAL)

0204150001 KNOW THAT IN CHEMICAL CHANGE, ATOMS REACT TO PRODUCE A CHANGE IN

EXPERIMENTS TO START A FIRE, OBSERVE THE COMBINED FIRE AND CANDLE AND WRITE AT THE REACTIONS.

OCcurring AS A CANDLE BURNS, THE PARAFFIN DISAPPEARS, AND LIGHT AND HEAT ARE

CONSTANT RATE, BY PLACING HALF-INCH MARKS ON THE CANDLE AND MEASURING THE DISAPPEARANCE.

HOW WHEN A CANDLE BURNS, BY ARRANGING A CANDLE INSIDE JOINED JARS WHICH TURN LIMEWATER TO CLOUDY WHEN THE LIGHTED CANDLE IS PUT OUT.

CHARACTERISTICS OF CARBON DIOXIDE.

IT HAS DIFFERENT PROPERTIES USING LIMEWATER AS A REAGENT.

LIMEWATER TO TURN TO A MILKY COLOR.

HOW TO OBTAIN CARBON DIOXIDE AND AIR FROM THE ATMOSPHERE, USING EXHALATION THROUGH LIMEWATER AND WHERE AIR FROM A BICYCLE PUMP IS USED TO FILL A BALLOON.

HOW TO STUDY THE PROPERTIES OF CARBON DIOXIDE BY USING ONE BALLOON FILLED BY A PUMP

HOW TO SHOW THAT AIR CONTAINS CARBON DIOXIDE, BY BLOWING INTO A BALLOON AND BUBBLING THE AIR

HOW CARBON COMBINES CHEMICALLY WITH CARBON.

HOW TO PRODUCE A CHANGE IN THE MOLECULES.

- 0204160 ENERGY TRANSFORMATION (COMPOUNDS)
- 0204160001 KNOW THAT A COMPOUND IS MADE UP OF MORE THAN ONE ELEMENT
- 0204160002 COMBINE TWO COMPOUNDS WITH DIFFERENT PROPERTIES IN ORDER TO CRE
- 0204170 ENERGY TRANSFORMATION (CONDENSATION)
- 0204170001 KNOW THAT WATER VAPOR IN THE AIR CAN BE CHANGED TO WATER.
- 0204170002 KNOW THAT TO CONDENSE WATER VAPOR, HEAT ENERGY MUST BE TAKEN.
- 0204170003 KNOW THAT WATER VAPOR CONDENSES WHEN COOLED.
- 0204170004 DEMONSTRATE THAT WATER IS IN THE AIR, BY CAUSING MOISTURE
WITH ICE WATER.
- 0204170005 DEMONSTRATE THAT WATER VAPOR IS FORMED INSIDE AND AT THE TOP OF
AIR, WHEN THE GLASS CHAMBER IS PLACED IN A WARM LOCATION.
- 0204180 ENERGY TRANSFORMATION (DECOMPOSITION)
- 0204180001 KNOW THAT THROUGH THE ACTION OF BACTERIA AND OTHER ORGANISMS
TO THE ENVIRONMENT.
- 0204180002 EXPLAIN HOW BACTERIA AND FUNGI, BREAK DOWN ONCE LIVING THINGS
- 0204190 ENERGY TRANSFORMATION (ELEMENTS)
- 0204190001 KNOW THAT AN ELEMENT IS MADE UP OF ONE KIND OF ATOM.

OF MORE THAN ONE ELEMENT.

DIFFERENT PROPERTIES IN ORDER TO CREATE A THIRD COMPOUND WITH NEW PROPERTIES.

ION)

CAN BE CHANGED TO WATER.

OR, HEAT ENERGY MUST BE TAKEN AWAY.

WHEN COOLED.

AIR, BY CAUSING MOISTURE TO COLLECT ON THE SURFACE OF A SHINY CAN FILLED

FORMED INSIDE AND AT THE TOP OF A SEALED GLASS CHAMBER THAT CONTAINS WATER AND
PLACED IN A WARM LOCATION.

ION)

BACTERIA AND OTHER ORGANISMS, THE MATTER OF ONCE-LIVING THINGS IS RETURNED

BREAK DOWN ONCE LIVING THINGS AND RETURN THEM TO THE ENVIRONMENT.

OF ONE KIND OF ATOM.

0204190002 KNOW THAT THE ATOMS IN AN ELEMENT ARE ALIKE. THE ATOMS IN A COMPOUND

0204190003 STATE THE DIFFERENCES IN ELEMENTS AND COMPOUNDS.

0204195 ENERGY TRANSFORMATION (EVAPORATION)

0204195001 KNOW THAT WATER EVAPORATES TO BECOME A GAS, WATER VAPOR.

0204195002 UNDERSTAND HOW EVAPORATION IS EXPLAINED BY THE MOLECULAR THEORY.

0204195003 DESCRIBE HOW A DROP OF WATER EVAPORATES AS IT CHANGES FROM LIQUID

0204210 ENERGY TRANSFORMATION (HEAT)

0204210001 DESCRIBE THE STATE TO WHICH MATTER WILL CHANGE IF HEAT ENERGY IS
CONTRACT.

0204210002 GIVEN TWO STATES OF MATTER, TELL IF HEAT MUST BE ADDED OR TAKEN
AND GIVE THE NAME OF THE PROCESS.

0204210003 GIVEN DESCRIPTION OR ILLUSTRATION OF A CHANGE OF STATE OF LIQUID
FREEZING POINT OR IF IT WAS AT BOILING POINT.

0204225 ENERGY TRANSFORMATION (LIGHT AND SOUND)

0204225001 STATE THE DIFFERENCES IN LIGHT AND SOUND AS FORMS OF ENERGY.

ELEMENT ARE ALIKE. THE ATOMS IN A COMPOUND ARE DIFFERENT.

ELEMENTS AND COMPOUNDS.

ORATION)

TO BECOME A GAS, WATER VAPOR.

IS EXPLAINED BY THE MOLECULAR THEORY.

R EVAPORATES AS IT CHANGES FROM LIQUID TO WATER VAPOR, DUE TO A TEMPERATURE CHANGE.

MATTER WILL CHANGE IF HEAT ENERGY IS ADDED OR TAKEN AWAY, USING THE TERMS EXPAND OR

TELL IF HEAT MUST BE ADDED OR TAKEN AWAY TO GO FROM THE FIRST TO THE SECOND STATE
PROCESS.

ATION OF A CHANGE OF STATE OF LIQUID, EXPLAIN IF TEMPERATURE OF SUBSTANCE WAS AT
AT BOILING POINT.

T AND SOUND)

IGHT AND SOUND AS FORMS OF ENERGY.

0204245 ENERGY TRANSFORMATION (MOLECULAR)

0204245001 KNOW THAT MATTER IS MOLECULAR IN NATURE.

0204245002 KNOW THAT THE SPACE BETWEEN MOLECULES INCREASES AS A SUBSTANCE

0204245003 KNOW THAT MOLECULES CAN BE MOVED AROUND TO FORM COMPOUNDS

0204245004 KNOW THAT ENERGY IS RELEASED DURING A MOLECULAR CHANGE.

0204245005 KNOW THAT A LOSS OR GAIN OF ENERGY AFFECTS MOLECULAR MOTION.

0204245006 KNOW THAT A LOSS OR GAIN IN ENERGY AFFECTS MOLECULAR MOTION.

0204245007 KNOW THAT MOLECULES OF SUBSTANCES INTERACT.

0204245008 KNOW THAT AIR AND WATER CANNOT OCCUPY THE SAME SPACE AT THE SAME

0204245009 THROUGH THE USE OF MODELS, DISCOVER THAT DIFFERENT COMPOUNDS
MOLECULES.

0204255 ENERGY TRANSFORMATION (OXIDATION)

0204255001 NAME THE BLACK SUBSTANCE AS CARBON AND THE LIQUID AS WATER IN

0204255002 DEMONSTRATE THAT A BLACK SUBSTANCE AND A LIQUID ARE FORMED WHEN

0204255003 KNOW THAT IRON AND OXYGEN COMBINE TO FORM IRON OXIDE, OR RUST.

0204255004 KNOW THAT OXYGEN RUSTS IRON MORE QUICKLY THAN AIR DOES.

ECULAR)
LAR IN NATURE.

N MOLECULES INCREASES AS A SUBSTANCE EXPANDS.

MOVED AROUND TO FORM COMPOUNDS OR TO OBTAIN ELEMENTS.

ED DURING A MOLECULAR CHANGE.

R ENERGY AFFECTS MOLECULAR MOTION.

N ENERGY AFFECTS MOLECULAR MOTION.

STANCES INTERACT.

NNOT OCCUPY THE SAME SPACE AT THE SAME TIME.

DISCOVER THAT DIFFERENT COMPOUNDS HAVE DIFFERENT NUMBERS OF ATOMS IN THEIR

DATION)

S CARBON AND THE LIQUID AS WATER IN THE HEATING OF SUGAR OVER A FLAME.

UBSTANCE AND A LIQUID ARE FORMED WHEN SUGAR IN A TEST TUBE IS HEATED OVER A FLAME

COMBINE TO FORM IRON OXIDE, OR RUST.

N MORE QUICKLY THAN AIR DOES.

0204255005. KNOW THAT SOME MOLECULES OF AIR SEEM TO DISAPPEAR WHEN IRON RUSTS.
- 0204255006 DEMONSTRATE AS IRON RUSTS, THE AIR IN A CLOSED CONTAINER IS DIMINISHED
- 0204255007 DEMONSTRATE THAT, INSIDE A TEST TUBE CONTAINING WET STEEL WOOL IN AS THE STEEL WOOL RUSTS.
- 0204260 ENERGY TRANSFORMATION (OXYGEN)
- 0204260001 KNOW THAT OXYGEN AND CARBON DIOXIDE FORM A CYCLE.
- 0204260002 STATE THE FIVE IMPORTANT FACTS ABOUT THE OXYGEN CYCLE.
- 0204260003 NAME BUBBLES OF GAS, FROM AQUARIUM PLANTS, AS OXYGEN.
- 0204260004 DESCRIBE THAT BUBBLES RISE FROM AQUARIUM PLANTS GROWING IN SUNLIGHT, LIGHT IS CUT OFF.
- 0204260005 DEMONSTRATE THE COLLECTION OF OXYGEN BY ADDING HYDROGEN PEROXIDE TO A TEST TUBE IN WATER, CAUSING GAS TO FORM IN THE TEST TUBE, DISPLAC
- 0204285 ENERGY TRANSFORMATION (WATER)
- 0204285001 KNOW THAT FREEZING WATER EXPANDS.
- 0204285002 KNOW THAT THE EXPANSION OF WATER AS IT TURNS TO ICE HAS A GREAT FORCE
- 0204285003 DEMONSTRATE THAT AS WATER FREEZES IT EXPANDS AND TAKES UP MORE SPACE CAUSING ICE TO RISE ABOVE TOP OF CAN.
- 0204285004 KNOW THAT ICE OCCUPIES A GREATER VOLUME THAN WATER.

SEEM TO DISAPPEAR WHEN IRON RUSTS.

AIR IN A CLOSED CONTAINER IS DIMINISHED.

A TEST TUBE CONTAINING WET STEEL WOOL INVERTED IN WATER, THE WATER LINE WILL RISE

PLANTS CAN FORM A CYCLE.

ABOUT THE OXYGEN CYCLE.

PLANTS, AS OXYGEN.

AQUARIUM PLANTS GROWING IN SUNLIGHT, AND THAT THE BUBBLES DECREASE WHEN THE

OXYGEN BY ADDING HYDROGEN PEROXIDE TO A TEST TUBE CONTAINING YEAST, INVERTING THE TUBE, DISPLACING THE WATER.

AS IT TURNS TO ICE HAS A GREAT FORCE.

AS IT EXPANDS AND TAKES UP MORE SPACE BY FREEZING WATER IN OPEN CAN, THUS

0204285005 KNOW THAT WARM WATER RISES IN COLD WATER COLD WATER; SINKS IN

0204285006 KNOW THAT WARM WATER RISES BECAUSE IT EXPANDS...

0204285007 DEMONSTRATE THAT WARM WATER RISES AND COLD WATER SINKS.

0204285008 DEMONSTRATE THAT WARM WATER RISES WHEN MIXED WITH COLD WATER, BY
COLD WATER, CAUSING THE COLORED WATER TO REMAIN IN THE TOP HALF

0204285009 DEMONSTRATE THAT COLD WATER SINKS WHEN MIXED WITH WARM WATER, BY
WARM WATER, CAUSING THE COLORED WATER TO SETTLE IN THE BOTTOM HA

0204285010 DEMONSTRATE THAT A DROP OF WATER DISAPPEARS AND CAN BE FORMED AG
CHAMBER AND ALTERNATELY PLACING THE CONTAINER IN A WARM, THE

0204285011 KNOW THAT WATER BECOMES AN INVISIBLE GAS WHEN SUPER HEATED AN

0204290

EROSION

0204290001

DEFINE EROSION. NAME AND DESCRIBE THREE WAYS IT CAN OCCUR.

0204290002

DEMONSTRATE HOW WATER MOVES LAND BY SPRINKLING WATER ON SAND HILL

0204290003

DEMONSTRATE THAT MOVING WATER CAN CARRY SAND PARTICLES BY STIRRIN
CAUSING SAND PARTICLES TO RISE INTO SWIRLING WATER,

0204290004

DEMONSTRATE THAT FASTER MOVING WATER CARRIES MORE SAND PARTICLES
WHICH WATER IS STIRRED.

0204290005

KNOW HOW PLANTS REDUCE EROSION.

ES IN COLD WATER COLD WATER; SINKS IN WARM WATER.

IS BECAUSE IT EXPANDS...

TER RISES AND COLD WATER SINKS.

TER RISES WHEN MIXED WITH COLD WATER, BY POURING COLORED WARM WATER INTO A GLASS OF
 COLORED WATER TO REMAIN IN THE TOP HALF OF THE JAR.

TER SINKS WHEN MIXED WITH WARM WATER, BY POURING COLORED COLD WATER INTO A GLASS OF
 COLORED WATER TO SETTLE IN THE BOTTOM HALF OF THE JAR.

OF WATER DISAPPEARS AND CAN BE FORMED AGAIN, BY ENCLOSING THE DROP IN A CLOSED GLASS
 PLACING THE CONTAINER IN A WARM, THEN COOL PLACE.

AN INVISIBLE GAS WHEN SUPER HEATED AND RETURNS TO A LIQUID WHEN COOLED.

TO DESCRIBE THREE WAYS IT CAN OCCUR.

EVES LAND BY SPRINKLING WATER ON SAND HILL CAUSING SAND TO FLOW DOWN GROOVE AS IN RIVER.

WATER CAN CARRY SAND PARTICLES BY STIRRING WATER IN JAR CONTAINING SAND AT BOTTOM
 TO RISE INTO SWIRLING WATER,

MOVING WATER CARRIES MORE SAND PARTICLES THAN SLOWER MOVING WATER BY VARYING SPEED WITH

ROSION.

| | | |
|------------|--|---------|
| 0204295 | FISH | |
| 0204295001 | INVESTIGATE THE STRUCTURES THAT ADAPT A FISH FOR WATER | LIVING. |
| 0204295002 | DESCRIBE HOW LIVING FISH IS FITTED FOR MOVING THROUGH CHARACTERISTICS AND ITS MOTIONS. | WATER. |
| 0204295003 | DRAW AND LABEL THE FOOD CHAIN OF A SALMON. | |
| 0204295004 | UNDERSTAND THE SALMON LIFE CYCLE IN WHICH THEY TRAVEL SPAWNING GROUNDS IN FRESH WATER. | GREAT D |
| 0204295 05 | KNOW THAT THE LIFE CYCLE OF A SALMON IS REPEATED AS THE TO DEVELOP INTO ADULT SALMON. | EGGS HA |
| 0204295006 | KNOW HOW THE SALMON'S LIFE CYCLE IS REPEATED OVER AND | OVER. |
| 0204295007 | WRITE OR TELL THE STORY OF A SALMON'S LIFE CYCLE USING | THE COR |
| 0204300 | FORCE AND MOTION | |
| 0204300001 | DEMONSTRATE YOUR UNDERSTANDING OF THE TERM FORCE AND A PULL IS EXERTED ON AN OBJECT. | APPLY T |
| 0204300002 | DESIGN A SIMPLE EXPERIMENT WHICH DEMONSTRATES THE INERTIA). | APPLICA |
| 0204315 | GEOLOGY | |
| 0204315001 | KNOW THAT THE ENVIRONMENT IS IN CONST. CHANGE. | |
| 0204315002 | KNOW THAT THE EARTH'S SURFACE IS ALWAYS CHANGING. | |
| 0204315003 | UNDERSTAND HOW THE ENERGY OF MOVING WATER CHANGES THE | EARTH'S |

ADAPT A FISH FOR WATER LIVING.

ATED FOR MOVING THROUGH WATER, BY OBSERVING AND RECORDING THE FISH'S

OF A SALMON.

LE IN WHICH THEY TRAVEL GREAT DISTANCES FROM FEEDING GROUNDS IN SALT WATER TO

SALMON IS REPEATED AS THE EGGS HATCH AND THE SALMON YOUNG RETURNED TO SALT WATER

LE IS REPEATED OVER AND OVER.

SALMON'S LIFE CYCLE USING THE CORRECT NAMES FOR EACH PHASE.

OF THE TERM FORCE AND APPLY THE TERM IN DESCRIBING SITUATIONS WHERE A PUSH OR

CH DEMONSTRATES THE APPLICATION OF NEWTON'S FIRST LAW OF MOTION (LAW OF

W CONSTANT CHANGE.

IS ALWAYS CHANGING.

MOVING WATER CHANGES THE EARTH'S SURFACE.

- 0204315004 KNOW HOW LAND WORN DOWN IN ONE PLACE IS BUILT UP IN ANOTHER.
- 0204315005 KNOW HOW PRESSURES ON AND IN THE EARTH CAUSE MOUNTAINS TO RISE.
- 0204315006 KNOW HOW THE PRESSURE OF SEDIMENT MAY CAUSE MOUNTAINS TO RISE.
- 0204315007 EXPLAIN HOW THE WEIGHT OF SEDIMENT CAN HELP TO RAISE MOUNTAINS.
- 0204315008 KNOW THAT THE PRESSURE ON THE MOLTEN ROCK WITHIN THE EARTH CAUS
- 0204315009 KNOW HOW UNEQUAL EXPANSION AND CONTRACTION CAN BREAK ROCKS.
- 0204315010 USING MARBLES SHOW HOW EXPANSION AND CONTRACTION WITH HEAT AND C
- 0204315011 SHOW HOW FREEZING WATER EXPANDS WITH ENOUGH FORCE TO BREAK ROCK
- 0204315012 KNOW THAT THE EXPANSION AND THE CONTRACTION OF ROCK, AND AND THE FO
- 0204315013 KNOW HOW THE EXPANSION OF FREEZING WATER BREAKS DOWN ROCKS.
- 0204315014 GIVEN MODEL OR DIAGRAM OF THE EARTH, NAME EACH OF THE THREE LAYE
GENERAL PROPERTIES OF EACH.
- 0204315015 KNOW WHY THE EARTH'S ROCKS DEEP BELOW THE CRUST CAN FLOW UNDER
- 0204315016 GIVEN A DESCRIPTION OF HOW A ROCK WAS FORMED, TELL WHETHER TH
METAMORPHIC.

ONE PLACE IS BUILT UP IN ANOTHER.

THE EARTH CAUSE MOUNTAINS TO RISE.

IMENT MAY CAUSE MOUNTAINS TO RISE.

IMENT CAN HELP TO RAISE MOUNTAINS.

E MOLTEN ROCK WITHIN THE EARTH CAUSES THE CRUST TO RISE FORMING MOUNTAINS.

ND CONTRACTION CAN BREAK ROCKS.

SION AND CONTRACTION WITH HEAT AND COLD CAN BREAK DOWN ROCK.

DS WITH ENOUGH FORCE TO BREAK ROCK, USING CAN, WATER AND BRICK.

HE CONTRACTION OF ROCK, AND AND THE FORCE OF GROWING PLANTS, HELP, BREAK DOWN ROCK.

EFZING WATER BREAKS DOWN ROCKS.

E EARTH, NAME EACH OF THE THREE LAYERS (CRUST, MANTLE, AND CORE) AND DESCRIBE

EEP BELOW THE CRUST CAN FLOW UNDER PRESSURE.

ROCK WAS FORMED, TELL WHETHER THE ROCK IS IGNEOUS, SEDIMENTARY, OR

- 0204325 HUMAN BODY (CIRCULATORY)
0204325001 USING THE TERMS ARTERIES, VEINS, CAPILLARIES, AND HEART, DESCRIBE H
- 0204335 HUMAN BODY (DIET)
0204335001 TELL WHY WE NEED NUTRIENTS AND HOW THEY DIFFER FROM WASTES.
0204335002 CONDUCT TESTS TO FIND OUT WHETHER A FOOD IS MAINLY CARBOHYDRA
0204335003 CLASSIFY A FAMILIAR FOOD AS BELONGING TO ONE OF THE FOLLOWING
VEGETABLE=FRUIT.
0204335004 FROM LIST OF FOODS, IDENTIFY BEST SOURCES OF PROTEIN, CARBOHYDRA
0204335005 EXPLAIN WHETHER FOOD EATEN IN ONE DAY BY A CHILD IS A BALANCED D
0204335006 PLAN A WELL-BALANCED DIET FOR A DAY.
- 0204340 HUMAN BODY (DIGESTIVE)
0204340001 ON DRAWING OF DIGESTIVE SYSTEM, IDENTIFY MOUTH, TEETH, TONGUE, FO
- 0204355 HUMAN BODY (EXERCISE)
0204355001 SUGGEST SCHEDULE OF EXERCISES FOR ADULT TO DO TO REMAIN HEALTHY.

VEINS, CAPILLARIES, AND HEART, DESCRIBE HOW THE BLOOD TRAVELS IN THE BODY.

AND HOW THEY DIFFER FROM WASTES.

WHETHER A FOOD IS MAINLY CARBOHYDRATE, FAT, OR PROTEIN.

BELONGING TO ONE OF THE FOLLOWING FOOD GROUPS: MILK, MEAT, BREAD-CEREAL, OR

THE BEST SOURCES OF PROTEIN, CARBOHYDRATE, AND FAT.

THE DIET IN ONE DAY BY A CHILD IS A BALANCED DIET. IF NOT, TELL WHAT IS MISSING.

FOR A DAY.

IN A DIAGRAM, IDENTIFY MOUTH, TEETH, TONGUE, FOOD PIPE, STOMACH, AND INTESTINE.

LIST THE THINGS FOR ADULT TO DO TO REMAIN HEALTHY.

0204385 HUMAN BODY (MUSCULAR)
0204385001 EXPLAIN HOW OPPOSING MUSCLES IN MAN (INCLUDING THOSE OF ARM AND LE

0204400 HUMAN BODY (POSTURE)
0204400001 NAME TWO HEALTH REASONS FOR GOOD POSTURE AND TELL IF A PERSON IS,
AND SITTING.

0204410 HUMAN BODY (RESPIRATORY)
0204410001 DESCRIBE NORMAL FLOW OF AIR IN AND OUT OF HUMAN RESPIRATOR
PASSAGE, AND WINDPIPE.

0204415 HUMAN BODY (SKELETAL)
0204415001 IN DRAWING, IDENTIFY SKULL, BACKBONE, RIRS. SHOULDER BLADE, UPP
THIGHBONE, KNEECAP, SHINBONE, HEEL BONE, TOE AND FINGER BONES.

0204420 HUMAN BODY (SKIN, HAIR, TEETH, NAILS)
0204420001 DESCRIBE HOW TO TAKE PROPER CARE OF SKIN, TEETH, HAIR, AND NAILS.
GOOD HEALTH.

0204425 HUMAN BODY (SYSTEMS)
0204425001 IN A DRAWING OF HUMAN BODY, FIND AND NAME FIVE SYSTEMS OF THE BODY
0204425002 MATCH HUMAN BODY SYSTEMS (SKELETAL, MUSCULAR, DIGESTIVE, CIRCULATORY

MUSCLES IN MAN (INCLUDING THOSE OF ARM AND LEG) WORK TO CAUSE MOVEMENT OF BODY PARTS.

FOR GOOD POSTURE AND TELL IF A PERSON IS SHOWING PROPER POSTURE IN STANDING, WALKING,

AIR IN AND OUT OF HUMAN RESPIRATORY SYSTEM, USING THE TERMS LUNGS, NOSE, NASAL

HULL, BACKBONE, RIBS, SHOULDER BLADE, UPPER ARM BONE, LOWER ARM BONES, HIPBONE,
FIBER BONE, HEEL BONE, TOE AND FINGER BONES.

TEETH, NAILS)

PROPER CARE OF SKIN, TEETH, HAIR, AND NAILS. NAME TWO REASONS WHY THIS IS IMPORTANT FOR

BODY, FIND AND NAME FIVE SYSTEMS OF THE BODY.

(SKELETAL, MUSCULAR, DIGESTIVE, CIRCULATORY, AND RESPIRATORY) TO THEIR MAJOR FUNCTIONS.

| | | |
|------------|--|----------|
| 0204445 | INSECTS | |
| 0204445001 | RECOGNIZE THE BODY PARTS OF AN INSECT YOU CHOOSE TO | STUDY. |
| 0204450 | INTERDEPENDENCE | |
| 0204450001 | KNOW HOW LIVING THINGS DEPEND ON OTHER LIVING THINGS | FOR THEI |
| | GREEN PLANTS. | |
| 0204450002 | KNOW THE INHERITED CHARACTERISTICS OF A LIVING THING | CAN DEVE |
| | GROWING PLANT OR ANIMAL CAN INTERCHANGE MATTER AND | ENERGY W |
| 0204450003 | INFER OR DEMONSTRATE WAYS IN WHICH PLANTS AND ANIMALS | MAY BE I |
| | GREEN PLANTS OR THEIR PRODUCTS FOR FOOD. | |
| 0204455 | LIGHT | |
| 0204455001 | KNOW THAT LIGHT AND SOUND ARE DIFFERENT FORMS OF ENERGY. | |
| 0204455002 | DEMONSTRATE HOW WE KNOW THAT LIGHT IS A FORM OF ENERGY. | |
| 0204455003 | KNOW THAT THE LIGHT ENERGY OF A CANDLE COMES FROM | PARAFFIN |
| 0204455004 | KNOW THAT LIGHT ENERGY MAY BE RELEASED BY A CHEMICAL | CHANGE. |
| 0204455005 | KNOW THAT CHEMICAL ENERGY CAN BECOME LIGHT ENERGY. | |
| 0204455006 | KNOW THAT THE LIGHT ENERGY OF A CANDLE IS PRODUCED BY | CHEMICAL |
| 0204455007 | KNOW THAT LIGHT TRAVELS THROUGH SPACE. | |
| 0204455008 | KNOW THAT OBJECTS BECOME VISIBLE AS LIGHT IS REFLECTED | FROM THE |

OBJECT YOU CHOOSE TO STUDY.

OTHER LIVING THINGS FOR THEIR FOOD, IN FOOD CHAINS THAT IN THE END DEPEND ON

THE PRESENCE OF A LIVING THING CAN DEVELOP ONLY IN THE KIND OF ENVIRONMENT IN WHICH THE ORGANISM CAN EXCHANGE MATTER AND ENERGY WITH THE ENVIRONMENT.

PLANTS AND ANIMALS MAY BE INTERDEPENDENT. NONGREEN PLANTS ARE DEPENDENT ON GREEN PLANTS FOR FOOD.

DIFFERENT FORMS OF ENERGY.

HEAT IS A FORM OF ENERGY.

CHEMICAL ENERGY COMES FROM PARAFFIN.

HEAT IS RELEASED BY A CHEMICAL CHANGE.

SOME LIGHT ENERGY.

HEAT IS PRODUCED BY CHEMICAL CHANGE.

PHENOMENON.

LIGHT IS REFLECTED FROM THEM TO THE EYE.

- 0204455009 KNOW THAT LIGHT MUST REACH THE EYE TO BE SEEN.
- 0204455010 DEMONSTRATE THAT LIGHT TRAVELS IN A STRAIGHT LINE.
- 0204455011 OBSERVE THE BEHAVIOR OF LIGHT.
- 0204455012 KNOW THAT LIGHT ENERGY BEHAVES SOMETIMES AS WAVES, AND SOMETIMES
- 0204455013 KNOW THAT LIGHT CAN BE POLARIZED BY CERTAIN MATERIALS.
- 0204455014 KNOW THAT LIGHT MAY BE BENT AS IT PASSES THROUGH CERTAIN MATERIALS.
- 0204455015 DEMONSTRATE THAT LIGHT MAY BE BENT (REFRACTED) AS IT ENTERS OR
- 0204455016 DEMONSTRATE HOW LIGHT CAN BE ABSORBED AND REFLECTED.
- 0204455017 DEMONSTRATE THAT LIGHT BOUNCES, BY USING A LIGHT SOURCE, MIRROR, WH
AMOUNTS OF LIGHT TO REFLECT ONTO A DARKENED OBJECT.
- 0204455018 DESIGN EXPERIMENT TO SHOW WHETHER SUBSTANCES OR OBJECTS WITH DIFFE
ABSORB MOST OF THE LIGHT WHICH FALLS ON THEM.
- 0204455019 DESCRIBE THE BEHAVIOR OF LIGHT IN TERMS OF REFLECTION OF BRIGHT
- 0204455020 DEMONSTRATE THAT LIGHT CAN BE REFLECTED, ABSORBED, DIFFUSED,
- 0204455021 DEMONSTRATE THAT THE BEHAVIOR OF POLARIZED LIGHT IS EXPLAINED
- 0204455022 DEMONSTRATE THAT LIGHT PASSES THROUGH ONE PIECE OF POLARIZED
WHEN TWO PIECES ARE USED AND ONE IS TURNED.

THE EYE TO BE SEEN.

TRAVELS IN A STRAIGHT LINE.

LIGHT.

TRAVELS SOMETIMES AS WAVES, AND SOMETIMES AS PARTICLES.

POLARIZED BY CERTAIN MATERIALS.

BENT AS IT PASSES THROUGH CERTAIN MATERIALS.

IS BENT (REFRACTED) AS IT ENTERS OR LEAVES WATER.

IS ABSORBED AND REFLECTED.

DEMONSTRATED, BY USING A LIGHT SOURCE, MIRROR, WHITE PAPER, AND BLACK PAPER, CAUSING VARYING EFFECTS ONTO A DARKENED OBJECT.

STUDIES WHETHER SUBSTANCES OR OBJECTS WITH DIFFERENT SURFACE TEXTURES AND COLORS REFLECT OR TRANSMIT WHICH FALLS ON THEM.

STUDIES LIGHT IN TERMS OF REFLECTION OF BRIGHT SURFACES AND ITS ABSORPTION BY DARK SURFACES.

HOW LIGHT IS REFLECTED, ABSORBED, TRANSMITTED, DIFFUSED, AND BENT.

THE BEHAVIOR OF POLARIZED LIGHT IS EXPLAINED BY A WAVE MODEL.

HOW LIGHT PASSES THROUGH ONE PIECE OF POLARIZED PLASTIC, BUT ALTERNATELY STOPS AND PASSES THROUGH ANOTHER AND ONE IS TURNED.

0204455023 CONSTRUCT A DRAWING OF LIGHT RAYS PASSING THROUGH A LENS TO THE
TO A POINT.

0204455024 DESCRIBE THE LENS AS FOCUSING THE LIGHT WHEN IT BRINGS LIGHT

0204455025 DEMONSTRATE THAT LIGHT RAYS BEND, BY CAUSING SUNLIGHT TO PASS
IT MAY BE HOT ENOUGH TO BURN PAPER.

0204465 MACHINES (COMPLEX)

0204465001 DISASSEMBLE A COMPLEX MACHINE AND IDENTIFY AT LEAST TWO OF THE

0204465002 DISASSEMBLE A COMPLEX MACHINE AND DESCRIBE ORALLY AT LEAST

0204470 MACHINES (SIMPLE)

0204470001 WHEN GIVEN THREE SIMPLE MACHINES, IDENTIFY AND DESCRIBE THE OPERATION

0204470002 DESIGN A SIMPLE TOOL WHICH WILL HELP YOU PERFORM A TASK AT SCHOOL

0204495 MICRO-ORGANISMS

0204495001 DEMONSTRATE FOOD IS NECESSARY FOR ORGANISMS TO GROW AND MULTIPLY
HARD-BOILED EGG YOLK CAUSING JARS WITH FOOD TO BE CLOUDY WITH MICRO-ORGANISMS

0204505 MOLLUSKS

0204505001 DESCRIBE THE HATCHING OF AN EGG, BY OBSERVING AND RECORDING
SNAILS HATCH.

AYS PASSING THROUGH A LENS TO THE PAPER, ILLUSTRATING THAT THE RAYS BEND AND FOCU.

THE LIGHT WHEN IT BRINGS LIGHT TO A POINT.

ND, BY CAUSING SUNLIGHT TO PASS THROUGH A CONVEX LENS AND FORM A SMALL SPOT WHERE
APER.

AND IDENTIFY AT LEAST TWO OF THE SIMPLE MACHINES INVOLVED.

AND DESCRIBE ORALLY AT LEAST TWO OF THE SIMPLE MACHINES INVOLVED.

ES, IDENTIFY AND DESCRIBE THE OPERATION OF ONE MACHINE.

HELP YOU PERFORM A TASK AT SCHOOL OR AT HOME.

FOR ORGANISMS TO GROW AND MULTIPLY BY CULTURING POND WATER WITH/WITHOUT ADDING
ARS WITH FOOD TO BE CLOUDY WITH MICRO-ORGANISMS.

0204510 PLANTS (ADAPTATION)

0204510001 KNOW THAT DIFFERENT PLANTS ARE ADAPTED TO DIFFERENT ENVIR

0204510002 DEMONSTRATE HOW NONGREEN PLANTS ARE ADAPTED FOR OBTAIN

0204530 PLANTS (FERTILIZATION)

0204530001 DESCRIBE ORALLY OR IN WRITING HOW FERTILIZATION TAKES PLACE

0204535 PLANTS (FOOD CHAINS)

0204535001 KNOW THAT FOOD CHAINS LEAD ULTIMATELY TO GREEN PLANTS.

0204540 PLANTS (GASES)

0204540001 KNOW THAT GREEN PLANTS GIVE OFF OXYGEN GAS.

0204540002 KNOW THAT THE SUBSTANCES IN THE AIR ARE AFFECTED BY THE ACTION
IN LIGHT, AND TAKE IN CARBON DIOXIDE).

0204545 PLANTS (GROWTH)

0204545001 KNOW HOW GROWING PLANTS CAN BREAK ROCKS.

0204545002 KNOW HOW MATTER FROM THE ENVIRONMENT IS USED FOR GROWTH BY CE

0204545003 KNOW THAT PLANTS HAVE LIFE CYCLES ADAPTED TO GROWTH IN THEIR

PLANTS ARE ADAPTED TO DIFFERENT ENVIRONMENTS.

GREEN PLANTS ARE ADAPTED FOR OBTAINING FOOD AND REPRODUCING.

WRITING HOW FERTILIZATION TAKES PLACE IN THE PLANT.

LEAD ULTIMATELY TO GREEN PLANTS.

S GIVE OFF OXYGEN GAS.

GASES IN THE AIR ARE AFFECTED BY THE ACTION OF GREEN PLANTS. (GREEN PLANTS GIVE OFF OXYGEN AND TAKE UP CARBON DIOXIDE).

PLANTS CAN BREAK ROCKS.

THE ENVIRONMENT IS USED FOR GROWTH BY CELLS OF GREEN PLANTS AND ALL OTHER LIVING THINGS.

LIFE CYCLES ADAPTED TO GROWTH IN THEIR ENVIRONMENTS.

0204545004 CONSTRUCT A HYPOTHESIS ABOUT WHAT WILL HAPPEN TO THE HEIGHT
CONTINUES GROWING.

0204545005 DEMONSTRATE THAT THE HEIGHT OF THE MARK WILL NOT CHANGE AS T

0204550 PLANTS (HYBRIDS)

0204550001 DEBATE FOR OR AGAINST SPENDING TIME AND MONEY TO IMPROVE THE
HYBRIDIZATION.

0204555 PLANTS (MOLDS)

0204555001 WHEN GIVEN THE APPROPRIATE MATERIAL UNDER CONTROLLED COND
GROW SUCCESSFULLY UNDER CONTROLLED CONDITIONS.

0204555002 DEMONSTRATE THAT MOLD WILL GROW ON FOOD, PLACING MOIST
PLACE FOR A FEW DAYS.

0204555003 DESCRIBE THE GROWTH OF THE MOLD ON BREAD AS SIMILAR TO WHICH
CELLS TO DISAPPEAR IN TIME.

0204560 PLANTS (NEEDS)

0204560001 KNOW WHY GREEN PLANTS NEED THE RIGHT CONDITIONS FOR GROWT

0204560002 WHEN GIVEN FIVE SEEDS, GROW AND OBSERVE ENVIRONMENTAL CONDI

0204560003 DEMONSTRATE THAT LIGHT IS NECESSARY FOR GROWTH OF A GREEN
SUNLIGHT, TO LIGHT FROM AN ELECTRIC LAMP, AND TO DARKN

0204560004 DEMONSTRATE THE CONDITIONS UNDER WHICH GREEN PLANTS WILL
CONDITIONS OF SOIL, WATER AND LIGHT AND COMPARING RESULT

WHAT WILL HAPPEN TO THE HEIGHT OF A MARK ON A GROWING PLANT STEM, AS THE PLANT GROWS?
THE MARK WILL NOT CHANGE AS THE PLANT CONTINUES GROWING.

HOW CAN WE SAVE TIME AND MONEY TO IMPROVE THE QUANTITY AND THE QUALITY OF CROPS BY SELECTION OR BREEDING?

HOW CAN WE CONTROL MOLD GROWTH UNDER CONTROLLED ENVIRONMENTAL CONDITIONS?

HOW CAN WE CONTROL MOLD GROWTH ON FOOD, PLACING IT IN A WARM OR COOL PLACE?

HOW CAN WE CONTROL MOLD GROWTH ON BREAD AS SIMILAR TO THAT ON A DEAD TREE, CAUSING THE TREE TO ROT?

WHAT ARE THE RIGHT CONDITIONS FOR MOLD GROWTH?

HOW CAN WE OBSERVE ENVIRONMENTAL CONDITIONS OF AT LEAST ONE PLANT?

HOW CAN WE CONTROL MOLD GROWTH UNDER A BRIGHT LIGHT OR UNDER A DIM LIGHT, UNDER A BRIGHT LAMP, AND TO CONTROL MOLD GROWTH ON A GREEN PLANT BY SUBJECTING GROWING RADISH SEEDLINGS TO DARKNESS, CAUSING MOST TO LEAST GROWTH?

HOW CAN WE CONTROL MOLD GROWTH ON GREEN PLANTS BY GROWING SEEDS UNDER EIGHT DIFFERENT CONDITIONS, AND COMPARING THE RESULTS?

- 0204560005 KNOW THAT GREEN PLANTS GET THE MATTER FOR GROWTH FROM WATER,
- 0204560006 DESCRIBE THAT LIGHT IS THE SOURCE OF ENERGY FOR GROWING GREEN P
- 0204560007 CONTROL THE ENVIRONMENT OF A GROWING PLANT AND OBSERVE WHAT HA
CHANGED.
- 0204560008 CONSTRUCT THREE TESTS OF GROWING CONDITIONS.
- 0204560009 STATE THREE THINGS NECESSARY FOR A GROWING LAND PLANT.
- 0204560010 KNOW THAT MINERALS IMPORTANT FOR PLANT GROWTH ARE FOUND IN SOIL
- 0204560011 KNOW THAT USING ENERGY FROM LIGHT, GREEN PLANTS MAKE THEIR O
ENVIRONMENT.
- 0204560012 DEMONSTRATE THAT THE AMOUNT AND KIND OF LIGHT ENERGY RECEIVE
FOOD AND GROW.
- 0204560013 UNDERSTAND HOW THE ACTION OF DECAY RETURNS TO THE SOIL COMPOUN
- 0204560014 DEMONSTRATE WAYS IN WHICH A GREEN PLANT MAY BE DEPENDENT UPON AN
- 0204560015 DEMONSTRATE, IN A MULTIPLE CHOICE TEST, KNOWLEDGE OF PLANTS
AND PROTEINS.
- 0204570 PLANTS (PARTS)
- 0204570001 MAKE MODELS AND DIAGRAMS OF DIFFERENT PLANT STRUCTURES, BASING
ACTUAL PLANTS.
- 0204570002 AFTER STUDYING DIAGRAMS OF VARIOUS PLANTS, DESCRIBE THE STRUCTUR

MATTER FOR GROWTH FROM WATER, SOIL, AND AIR.

SOURCE OF ENERGY FOR GROWING GREEN PLANTS.

GROWING PLANT AND OBSERVE WHAT HAPPENS TO IT WHEN THE ENVIRONMENTAL CONDITIONS ARE CHANGING CONDITIONS.

FOR A GROWING LAND PLANT.

FOR PLANT GROWTH ARE FOUND IN SOIL WATER.

LIGHT, GREEN PLANTS MAKE THEIR OWN FOODS FROM INORGANIC SUBSTANCES IN THE

AND KIND OF LIGHT ENERGY RECEIVED AFFECTS THE ABILITY OF GREEN PLANTS TO MAKE

DECAY RETURNS TO THE SOIL COMPOUNDS ESSENTIAL TO GROWING PLANTS.

GREEN PLANT MAY BE DEPENDENT UPON ANIMALS IN ITS ENVIRONMENT.

EXPERIMENTAL TEST, KNOWLEDGE OF PLANTS USING CARBON DIOXIDE AND NITROGEN TO MAKE SUGARS

DIFFERENT PLANT STRUCTURES, BASING THE MODELS ON OBSERVATIONS THEY HAVE MADE OF

EXPERIMENTAL TESTS, DESCRIBE THE STRUCTURE AND PARTS OF A PLANT.

0204575 PLANTS (ROOTS)

0204575001 KNOW THAT PLANTS TAKE WATER THROUGH THEIR ROOTS.

0204575002 DEMONSTRATE THAT AS BEAN SEEDS SPROUT, ROOTS GROW DOWNWARD BETWEEN MOIST BLOTTING PAPER AND SIDES OF GLASS JARS AND BY PLACI

0204580 PLANTS (SEEDS)

0204580001 KNOW THAT SEEDS TRANSMIT THE CHARACTERISTICS OF THE PARENT P

0204580002 DEMONSTRATE THAT GROWING PLANTS EXERT FORCE BY SPROUTING SEEDS BE BE PRIED APART.

0204580003 DEMONSTRATE THAT SPROUTING SEEDS EXERT FORCE BY FILLING SMALL BOT PUTTING CONTAINER IN DARK FOR FEW DAYS UNTIL SEEDS SPROUT PU

0204605 RELATIVE POSITIONS OF STATIONARY AND MOVING OBJECTS

0204605001 RECOGNIZE WHETHER OR NOT AN OBJECT HAS MOVED RELATIVE TO ANOTHER O

0204605002 TELL WHICH WAY AN OBJECT HAS MOVED RELATIVE TO YOU AND A REFEREN

0204605003 DESCRIBE THE POSITION OF AN OBJECT RELATIVE TO OTHER OBJECTS.

0204605004 DESCRIBE DIRECTION OF MOVEMENT THAT AN OBJECT HAS AS SEEN BY A THAT OBSERVER. DESCRIPTION COULD INCLUDE A REFERENCE TO ANOTHE

0204605005 RECOGNIZE EVIDENCE OF MOTION IN MOVIES OR FLIP-BOOK PICTURES THAT HAVE APPARENT MOTION. NOTE CHANGES IN POSITION RELATIVE

0204605006 RECOGNIZE WHETHER OR NOT AN OBJECT HAS MOVED RELATIVE TO ANOTHER O

0204605007 GIVEN ILLUSTRATIONS OF TWO OBJECTS OR SYSTEMS HAVING DIFFERENT SYSTEM IS MOVING FASTER AND WHICH IS MOVING SLOWER. (RELATIVE

WITH THEIR ROOTS.

ROOTS GROW DOWNWARD AND LEAVES GROW UPWARD BY SPROUTING SEEDS
 SIDES OF GLASS JARS AND BY PLACING THE JARS IN DIFFERENT POSITIONS.

CHARACTERISTICS OF THE PARENT PLANTS.

EXERT FORCE BY SPROUTING SEEDS BETWEEN TWO GLASS PLATES CAUSING GLASS PIECES TO

EXERT FORCE BY FILLING SMALL BOTTLE WITH DRY BEANS ADDING WATER AND CORK AND
 DAYS UNTIL SEEDS SPROUT PUSHING OUT CORK.

AND MOVING OBJECTS

HAS MOVED RELATIVE TO ANOTHER OBJECT (I.E., A REFERENCE OBJECT).

RELATIVE TO YOU AND A REFERENCE OBJECT.

RELATIVE TO OTHER OBJECTS.

AT AN OBJECT HAS AS SEEN BY ANOTHER OBSERVER RELATIVE TO THE POSITION OF
 INCLUDE A REFERENCE TO ANOTHER OBJECT OR SYSTEM.

MOVIES OR FLIP-BOOK PICTURES BY REPORTING DIFFERENTIAL SPEEDS OF OBJECTS
 CHANGES IN POSITION RELATIVE TO REFERENCE OBJECTS.

HAS MOVED RELATIVE TO ANOTHER OBJECT (I.E., A REFERENCE OBJECT)

OR SYSTEMS HAVING DIFFERENT RATES OF MOTION, RECOGNIZE WHICH OBJECT OR
 IS MOVING SLOWER, (RELATIVE MOTION CONCEPT).

- 0204605008 DESCRIBE THE POSITION OF AN OBJECT AS SEEN BY ANOTHER PERSON.
- 0204620 SCIENTIFIC METHOD
- 0204620001 KNOW THAT A HYPOTHESIS MUST BE TESTED WITH EVIDENCE.
- 0204620002 KNOW THAT A HYPOTHESIS IS BASED ON OBSERVATION AND ANALYSIS DESIGN OF THE INVESTIGATION.
- 0204620003 EXPLAIN THE MEANING OF THE WORD HYPOTHESIS.
- 0204620004 IN RESPONSE TO A REQUEST TO DO SO, DESCRIBE DESIGNS THAT WOULD BE MODEL CAN BE USED TO EXPLAIN A GIVEN PHENOMENON.
- 0204620005 PROVIDED WITH A SERIES OF EXPERIENCES RELATING TO OBSERVATIONS WHICH ARE OBSERVATIONS AND THOSE WHICH ARE WHICH ARE
- 0204620006 UNDERSTAND THE USEFULNESS OF THE CONCEPT OF CHANGE.
- 0204620007 AFTER OBSERVING A CHANGE IN AN OBJECT UNDER CONTROLLED PHYSICAL FOR THE CHANGE.
- 0204620008 AFTER OBSERVING A CHANGE IN AN OBJECT UNDER CONTROLLED PHYSICAL OBJECT UNDER UNCONTROLLED PHYSICAL CONDITION.
- 0204620009 DESIGN A SIMPLE EXPERIMENT WHICH DEMONSTRATES APPLICATION OF INERTIA).
- 0204620010 DESIGN SIMPLE EXPERIMENT, WHICH DEMONSTRATES APPLICATION OF NEW IT WITH VARIABLES, DRAW CONCLUSIONS AND MAKE GENERAL
- 0204620011 DESIGN THREE EXPERIMENTS WHICH DEMONSTRATE 1. INCREASE OR DECREASE FUNCTION OF TIME (V) (TERMINAL).
- 0204620012 DESIGN EXPERIMENT IN WHICH THESE PRINCIPLES OF LEARNING ARE DEMONSTRATED OBSERVATIONS, USING VARIABLES, KEEPING RECORDS, DRAWING CONCLUSIONS

OF AN OBJECT AS SEEN BY ANOTHER PERSON.

MUST BE TESTED WITH EVIDENCE.

IS BASED ON OBSERVATION AND
TION.

ANALYSIS OF OBJECTS AND EVENTS. IT DETERMINES THE

THE WORD HYPOTHESIS.

ST TO DO SO, DESCRIBE DESIGNS THAT WOULD BE APPROPRIATE TO ILLUSTRATE THAT MORE THAN ONE
PLAIN A GIVEN PHENOMENON.

OF EXPERIENCES RELATING TO
ARE OBSERVATIONS AND THOSE

'OBSERVATION' AND 'INFERENCES', SELECT FROM A LIST OF
WHICH ARE INFERENCES WITH 100 PER CENT ACCURACY.

ESS OF THE CONCEPT OF CHANGE.

BE IN AN OBJECT UNDER CONTROLLED

PHYSICAL CONDITIONS, ANALYZE AND HYPOTHESIZE A REASON

BE IN AN OBJECT UNDER CONTROLLED
LED PHYSICAL CONDITION.

PHYSICAL CONDITION, HYPOTHESIZE WHAT WILL HAPPEN TO THE

MENT WHICH DEMONSTRATES

APPLICATION OF NEWTON'S FIRST LAW OF MOTION (LAW OF

NT, WHICH DEMONSTRATES APPLICATION
W CONCLUSIONS AND MAKE

OF NEWTON'S BASIC LAWS BY DEVELOPING HYPOTHESIS, TEST
GENERALIZATIONS.

TS WHICH DEMONSTRATE 1. INCREASE
(TERMINAL).

OR DECREASE OF SPEED OF AN OBJECT. 2. VELOCITY AS

SE PRINCIPLES OF LEARNING
RIABLES, KEEPING RECORDS, DRAWING

ARE DEMONSTRATED: FORMULATING AN HYPOTHESIS FROM
CONCLUSIONS AND MAKING GENERALIZATIONS.

0204620013 DESIGN AN EXPERIMENT IN WHICH PRINCIPLES OF LEARNING ARE DEMONSTRATED
FORGETTING, AND RELEARNING.

0204625 SOIL

0204625001 KNOW THAT MOVING WATER CONTAINS MANY PARTICLES OF SOIL.

0204625002 DEMONSTRATE SOME SOIL SUBSTANCES DISSOLVE IN WATER BY MIXING SOIL
EVAPORATING WATER THAT PASSES THROUGH LEAVING RESIDUE OF PARTICLES.

0204625003 KNOW THAT WATER CAN CARRY SOIL OVER LONG DISTANCES.

0204625004 KNOW HOW SLOW-MOVING WATER CAN BUILD UP LAND.

0204625005 KNOW HOW FLOODING WATERS BUILD UP THE SOIL IN VALLEYS.

0204625006 KNOW THAT AS WATER SLOWS DOWN AT THE MOUTH OF A RIVER, IT DEPOSITS

0204625007 KNOW HOW TREES HOLD SOIL WITH THEIR ROOTS AND THEY PROVIDE COVER

0204625008 DEMONSTRATE THAT PLANTS (ROOTS) HOLD SOIL.

0204625009 DEMONSTRATE THAT FALLEN LEAVES HELP TO HOLD SOIL BY PLACING LEAVES
OVER LEAVES CAUSING SAND TO BE WASHED AWAY EXCEPT UNDER LEAVES.

0204630 SOLAR SYSTEM

0204630001 GIVEN INFORMATION ON THE PLANETS OF OUR SOLAR SYSTEM ORALLY DESCR

0204630002 GIVEN REFERENCE MATERIALS ABOUT PLANETS, TRANSLATE THE PLANET MEASU

ES OF LEARNING ARE DEMONSTRATED: MEMORIZATION, REACTIVE INHIBITION,

ARTICLES OF SOIL.

LVE IN WATER BY MIXING SOIL AND DISTILLED WATER, FILTERING MIXTURE,
LEAVING RESIDUE OF PARTICLES.

NG DISTANCES.

P LAND.

SOIL IN VALLEYS.

MOUTH OF A RIVER, IT DEPOSITS SOIL.

ROOTS AND THEY PROVIDE COVER.

SOIL.

D HOLD SOIL BY PLACING LEAVES ON THIN LAYER OF SAND SPRINKLING WATER
AWAY EXCEPT UNDER LEAVES.

OUR SOLAR SYSTEM ORALLY DESCRIBE FIVE OF THE NINE PLANETS.

ERIC
S TRANSLATE THE PLANET MEASUREMENTS INTO SCALE TERMS AND CONSTRUCT

- 0204630003 KNOW THAT SINCE CHANGE IS CONSTANT ALL LIVING THINGS CHANGE.
SPACE ARE CONSTANTLY CHANGING.
- 0204630004 KNOW THAT AN OBJECT TENDS TO MOVE IN A STRAIGHT LINE.
- 0204630005 DEMONSTRATE THAT BALL ATTACHED TO SLACK THREAD WILL ROLL IN STRAIGHT
TO TAUT. THREAD WILL ROLL IN CURVED LINE WHEN PUSHED.
- 0204630006 KNOW THAT THE SHAPE OF ORBITS AND THE POSITION OF BODIES IN SPACE
- 0204630007 UNDERSTAND WHY THE MOTION AND PATH OF CELESTIAL BODIES ARE PREDICTED
- 0204630008 KNOW THAT IT OCCURRED TO NEWTON THAT THE PULL OF GRAVITATION
- 0204630009 KNOW THAT THE MOON IS MOVING IN AN ORBIT AROUND THE EARTH.
- 0204630010 KNOW THAT THE PULL OF GRAVITATION BETWEEN EARTH AND MOON SHAPES THE
- 0204630011 KNOW THAT THE MOON TAKES ABOUT 28 DAYS TO MAKE ONE COMPLETE
- 0204630012 KNOW WHY THE CHANGING SHAPE OF THE MOON IS DUE TO ITS MOTION AROUND
- 0204630013 DEMONSTRATE HOW MOON'S SHAPE SEEMS TO CHANGE BY HOLDING BALL AND
CAUSING LIGHTED PART OF BALL TO CHANGE SHAPE.
- 0204630014 GIVEN REMOTE LIGHT SOURCE, DESCRIBE THAT SHAPE OF LIGHTED PART
THE BALL CIRCLES BUT DOES NOT APPEAR TO CHANGE TO ANY OTHER OBJECT
- 0204630015 PREDICT THE OBSERVABLE CHANGES IN THE MOON OVER A PERIOD OF 14 ORBIT
ORBIT AND THE MOTION OF THE MOON.
- 0204630016 SHOW UNDERSTANDING OF THESE WORDS IN A MATCHING TEST: FULL MOON
ELLIPSE.

ALL LIVING THINGS CHANGE. THEREFORE EARTH AND ALL THE OTHER BODIES IN
 IN A STRAIGHT LINE.

SLACK THREAD WILL ROLL IN STRAIGHT LINE WHEN IT IS PUSHED AND THAT ONE ATTACHED
 D LINE WHEN PUSHED.

THE POSITION OF BODIES IN SPACE ARE PREDICTABLE.

OF CELESTIAL BODIES ARE PREDICTABLE.

AT THE PULL OF GRAVITATION EXTENDED BEYOND THE EARTH TO THE MOON.

N ORBIT AROUND THE EARTH.

BETWEEN EARTH AND MOON SHAPES THE MOON'S ORBIT AROUND THE EARTH.

DAYS TO MAKE ONE COMPLETE ORBIT AROUND THE EARTH.

E MOON IS DUE TO ITS MOTION AROUND THE EARTH.

S TO CHANGE BY HOLDING BALL AND TURNING IT SLOWLY WHILE FLASHLIGHT SHINES ON IT
 HANGE SHAPE.

BE THAT SHAPE OF LIGHTED PART OF BALL APPEARS TO CHANGE TO OBSERVER WHOM
 EAR TO CHANGE TO ANY OTHER OBSERVER.

THE MOON OVER A PERIOD OF 14 OR 28 NIGHTS RELATING THE CHANGES TO THE SHAPE OF

IN A MATCHING TEST: FULL MOON, HALF MOON, METEOR, METEORITE, COMET, AND

0204630017 KNOW THAT THE HEAD OF A COMET IS A MIXTURE OF ICE AND ROCK.

0204630018 KNOW THAT A COMET, LIKE THE MOON, MAY TRAVEL IN A PREDICTABLE O

0204630019 KNOW THAT THE GRAVITATIONAL PULL OF JUPITER MAY AFFECT HALLEY'S COME

0204630020 KNOW THAT THE ORBIT OF HALLEY'S COMET IS AN ELLIPSE.

0204630021 PREDICT THE RETURN OF HALLEY'S COMET FROM A GIVEN DATE RELATING SHAP
HISTORY REASONING FOR SUCH PREDICTION.

0204630022 KNOW WHY SOME COMETS DO NOT RETURN.

0204630023 CONSTRUCT MODEL OF ORBIT OF COMET BY DRAWING ON FLOOR SCALE MODEL O
CHALK TO TRACE ORBIT LIKE THAT OF COMET.

0204630024 KNOW THAT METEORS MAY BE FRAGMENTS OF DISINTEGRATED COMETS.

0204630025 KNOW THAT FRICTION OF A METEOR AGAINST THE ATMOSPHERE RESULTS IN HE

0204630026 KNOW WHY METEORS DO NOT APPEAR AT REGULAR TIMES.

0204630027 IDENTIFY METEORS BY OBSERVING THE NIGHT SKY DURING TIMES OF METE

0204630028 DESCRIBE METEORS BY RECORDING THEIR CHARACTERISTICS AS BRIGHTNESS, O

0204640

SOUND

MIXTURE OF ICE AND ROCK.
MAY TRAVEL IN A PREDICTABLE ORBIT.
IF JUPITER MAY AFFECT HALLEY'S COMET.
COMET IS AN ELLIPSE.
AT A GIVEN DATE RELATING SHAPE OF ORBIT, MOTION AROUND THE SUN AND PAST
ION.
BY DRAWING ON FLOOR SCALE MODEL OF PART OF SOLAR SYSTEM USING STRING AND
COMET.
OF DISINTEGRATED COMETS.
INST THE ATMOSPHERE RESULTS IN HEAT AND LIGHT.
REGULAR TIMES.
NIGHT SKY DURING TIMES OF METEOR SHOWERS.
R CHARACTERISTICS AS BRIGHTNESS, COLOR, DIRECTION PATHS, AND LASTING TIME.

- 0204640002 KNOW THAT SOUND IS CAUSED BY A VIBRATING OBJECT.
- 0204640003 EXPLAIN THE STATEMENT - WHERE THERE IS SOUND THERE IS MOVEMENT.
- 0204640004 DESCRIBE THAT THE RUBBER BAND AND RULER MOVE AS SOUND IS PRODUCED.
- 0204640005 DEMONSTRATE THAT VIBRATION CAUSES SOUND.
- 0204640006 DEMONSTRATE MAKING OF SOUND, BY PLUCKING A RUBBER BAND STRETCHED
ONE END IS HELD AGAINST A TABLE.
- 0204640007 KNOW THAT SOUND TRAVELS IN WAVES, BY MOLECULAR MOTION.
- 0204640008 DEMONSTRATE A WAVE BY FLIPPING A LOOP ALONG A ROPE THAT IS TIED AT
LENGTH OF THE ROPE.
- 0204640009 KNOW THAT SOUND TRAVELS BY THE MOTION OF MOLECULES.
- 0204640010 DISCOVER BY INVESTIGATION THAT WAVES TRANSMIT ENERGY IN ALL DIRECTIONS.
- 0204640011 CONSTRUCT A STRING TELEPHONE, USING TEN FEET OF STRING AND TWO P
- 0204640012 DESCRIBE THAT SOUNDS PASS BETTER THROUGH A SOLID THAN THROUGH A
WITHOUT THE STRING TELEPHONE AND BY COMPARING SOUNDS TAPPED ON
- 0204640013 DEMONSTRATE THAT SOUND IN THE AIR PASSES THROUGH A SOLID, BY
- 0204640014 KNOW THAT SOUND TRAVELS APPROXIMATELY 1,100 FEET PER SECOND IN
- 0204640015 KNOW HOW SOUND CAN BE ABSORBED.

A VIBRATING OBJECT.

THERE IS SOUND THERE IS MOVEMENT.

AND RULER MOVE AS SOUND IS PRODUCED.

USES SOUND.

BY PLUCKING A RUBBER BAND STRETCHED AROUND A PIE TIN AND BY PLUCKING A RULER WHILE
IT VIBRATES.

MOVES, BY MOLECULAR MOTION.

BY MAKING A LOOP ALONG A ROPE THAT IS TIED AT THE OTHER END, CAUSING THE LOOP TO TRAVEL THE
DIRECTION OF MOTION OF MOLECULES.

THAT WAVES TRANSMIT ENERGY IN ALL DIRECTIONS.

USING TEN FEET OF STRING AND TWO PAPER CUPS.

TRAVEL THROUGH A SOLID THAN THROUGH AIR, BY COMPARING WHISPERS HEARD WITH AND
TAPPED ON WALL WITH AND WITHOUT EAR ON WALL.

AIR PASSES THROUGH A SOLID, BY USING THE STRING TELEPHONE.

APPROXIMATELY 1,100 FEET PER SECOND IN THE AIR.

D.

- 0204640016 . KNOW THAT WHEN SOUND HITS A WALL IT CAN BOUNCE BACK.
- 0204640017 KNOW THAT AN ECHO IS CAUSED BY THE BOUNCE OF SOUND.
- 0204640018 KNOW THAT THE MOLECULAR THEORY EXPLAINS WHY SOUND TRAVEL
- 0204640019 KNOW THAT THE PITCH OF A SOUND DEPENDS ON THE RATE OF THE VI
- 0204640020 DISCOVER THAT THE RATE OF VIBRATION CAN BE CHANGED IN DIFFER
- 0204640021 STATE TWO WAYS TO CHANGE PITCH.
- 0204640022 DEMONSTRATE TO PUPILS THAT CHANGING THE RATE OF VIBRAT
- 0204640023 USE A RULER OR RUBBER BANDS TO DEMONSTRATE THE CHANGES IN PIT
- 0204640024 DEMONSTRATE HIGH AND LOW PITCH SOUNDS BY PULLING A PIECE OF STI
DIFFERENT SPEEDS.
- 0204640025 IDENTIFY HIGH PITCH WITH FAST VIBRATIONS OF THE CARDBO
- 0204640026 IN A MATCHING TEST SHOW KNOWLEDGE OF HOW SOUND TRAVELS, THE CA
- 0204660 WATER
- 0204660001 KNOW THAT THE WATER SUPPLY IS THE RESULT OF THE CYCLE OF EVAPOR
- 0204660002 DRAW AND EXPLAIN A DIAGRAM SHOWING THE WATER CYCLE,

WALL IT CAN BOUNCE BACK.

BY THE BOUNCE OF SOUND,

RY EXPLAINS WHY SOUND

TRAVELS BETTER IN A SOLID THAN IN A GAS,

ND DEPENDS ON THE RATE OF

THE VIBRATION.

BRATION CAN BE CHANGED IN

DIFFERENT WAYS.

CH.

HANGING THE RATE OF

VIBRATION CHANGES THE PITCH,

TO DEMONSTRATE THE CHANGES

IN PITCH,

CH SOUNDS BY PULLING A PIECE OF STIFF CARDBOARD ACROSS THE TEETH OF A COMB, AT

T VIBRATIONS OF THE

CARDBOARD AND COMB, AND LOW PITCH WITH SLOW VIBRATIONS.

EDGE OF HOW SOUND TRAVELS,

THE CAUSE OF ECHO, AND THE SPEED OF THE TRAVEL OF SOUND.

S THE RESULT OF THE CYCLE OF EVAPORATION AND CONDENSATION,

- 0204660003 EXPLAIN THE WORK OF THE SUN IN THE WATER CYCLE.
- 0204660004 KNOW THAT WATER IS A COMPONENT OF ALL ORGANISMS.
- 0204660005 STATE THAT WATER IS A PART OF ALL LIVING THINGS. (DEMONST
- 0204660006 EXPLAIN HOW SAND CAN BE USED TO FILTER SOME MATERIALS OUT OF A
- 0204660007 CONSTRUCT A MODEL OF A WATER PURIFYING SYSTEM, BY PLACING
OVER THE COTTON, SO THAT Poured LIQUIDS WILL PASS THROUGH
- 0204660008 DEMONSTRATE THE USE OF THE MODEL WATER-PURIFIER BY POURING
FILTERING OUT SOIL PARTICLES, AND ALLOWING MUCH CLEARER WATER TO
- 0204660009 DEMONSTRATE THAT SETTLING IS ONE WAY OF CLEANING WATER, BY MIXIN
STAND FOR A WHILE, CAUSING PARTICLES TO SETTLE TO THE BOTTOM.
- 0204660010 KNOW THAT WATER CONTAINING DISSOLVED SUBSTANCES IS HEAVIER
- 0204660011 KNOW THAT THE WATER TABLE MARKS THE WATER LEVEL IN SOIL.
- 0204660012 DEMONSTRATE THERE IS A QUANTITY OF WATER IN AN APPLE BY WEIGHING
INTO SMALL PIECES ALLOWING THEM TO DRY FOR FEW DAYS AND WEIGHING
- 0204660013 DESCRIBE THE WEIGHT OF THE APPLE BEFORE AND AFTER DRYING,
OF THE WATER LOST FROM THE APPLE.
- 0204670 WEATHER (CLOUDS)
- 0204670001 KNOW AS RISING AIR COOLS, WATER VAPOR CONDENSES TO FORM A CLOUD.

THE WATER CYCLE.

ALL ORGANISMS.

LIVING THINGS. (DEMONSTRATING THAT THERE IS WATER IN FOOD).

FILTER SOME MATERIALS OUT OF WATER.

PURIFYING SYSTEM, BY PLACING COTTON IN A FUNNEL AND ADDING A LAYER OF SAND
LIQUIDS WILL PASS THROUGH THE FILTER INTO A JAR.

WATER-PURIFIER BY POURING WATER FROM THE SETTLING JAR INTO THE FUNNEL
ALLOWING MUCH CLEARER WATER TO PASS THROUGH.

WAY OF CLEANING WATER, BY MIXING WATER AND SOIL, THEN ALLOWING THE MIXTURE TO
LET PARTICLES SETTLE TO THE BOTTOM.

DISSOLVED SUBSTANCES IS HEAVIER THAN PURE WATER.

THE WATER LEVEL IN SOIL.

AMOUNT OF WATER IN AN APPLE BY WEIGHING APPLE WITH SPRING SCALE, THEN CUTTING APPLE
TO DRY FOR FEW DAYS AND WEIGHING PIECES AGAIN.

WEIGHT BEFORE AND AFTER DRYING, THE WEIGHT LOST FROM THE APPLE, AND THE WEIGHT

WATER VAPOR CONDENSES TO FORM A CLOUD.

0204680 WEATHER (PRECIPITATION)

0204680001 KNOW THAT RAIN FORMS AS CLOUD DROPLETS COME TOGETHER INTO

0204680002 UNDERSTAND THAT CLOUD DROPLETS ARE FORMED BY THE COOLING OF WA

0204680003 KNOW THAT CLOUD DROPLETS COLLIDE TO MAKE RAINDROPS,

0204680004 UNDERSTAND HOW ICE SPECKS MELT TO MAKE RAINDROPS,

0204690 WEATHER (RECORDING)

0204690001 KEEP DAILY RECORD OF YOUR OBSERVATIONS OF ELEMENTS OF WEATH
FOR RECORDING ANY INFORMATION YOU CANNOT OBSERVE YOURS

0204690002 USING A RAIN-GAUGE, ACQUIRE DATA EACH DAY TO MAKE A LONG-

0204690003 USING A RAIN-GAUGE, RECORD THE AMOUNT OF RAINFALL FOR A MONTH

0204690004 USING THE THERMOMETER, ACQUIRE DATA EACH DAY TO MAKE A LONG-

0204690005 USING A WIND VANE, ACQUIRE DATA EACH DAY TO MAKE A LONG-

0204690006 USING WEATHER INSTRUMENTS, OBSERVATIONS AND WEATHER KNOWL
TABLE OR GRAPH.

0204690007 CONSTRUCT A POINT GRAPH OR LINE GRAPH FROM A WEATHER MAP E

0204690008 FROM OBSERVATIONS AND WEATHER KNOWLEDGE, INTERPRET INFOR

0204690009 CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN AE
WIND AT A GIVEN TIME.

DROPLETS COME TOGETHER INTO LARGER DROPS OF WATER.

ARE FORMED BY THE COOLING OF WATER VAPOR.

TO MAKE RAINDROPS.

TO MAKE RAINDROPS.

OBSERVATIONS OF ELEMENTS OF WEATHER FOR TWO WEEKS. USE REPORTS FROM WEATHER BUREAU
IF YOU CANNOT OBSERVE YOURSELF.

RECORD EACH DAY TO MAKE A LONG-RANGE WEATHER CHART.

RECORD AMOUNT OF RAINFALL FOR A MONTH AND GRAPH THIS INFORMATION ON A LINE GRAPH.

RECORD DATA EACH DAY TO MAKE A LONG-RANGE WEATHER CHART.

RECORD EACH DAY TO MAKE A LONG-RANGE WEATHER CHART.

USE OBSERVATIONS AND WEATHER KNOWLEDGE, IDENTIFY AND NAME ALL INFORMATION SHOWN IN A

GRAPH FROM A WEATHER MAP EACH DAY.

USE KNOWLEDGE, INTERPRET INFORMATION SHOWN IN A TABLE OR GRAPH.

ANALYZE DATA TAKEN FROM AN AEROVANE TO SHOW THE VELOCITY AND DIRECTIONS OF THE

0204690010 CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN ANEMOMET

0204690011 CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM A TIDE GAUGE
GIVEN TIME.

THE DATA TAKEN FROM AN ANEMOMETER.

THE DATA TAKEN FROM A TIDE GAUGE TO SHOW THE RISE AND FALL OF THE TIDES AT A

0205005 ADAPTATION (ANIMALS).

0205005001 KNOW THAT GROWTH OF ORGANISMS FROM EGG TO ADULT PROVIDES MANY EXAMPLES OF ADAPTATION TO ITS ENVIRONMENT.

0205005002 KNOW THAT THE ADAPTATIONS OF AN ANIMAL TO ITS ENVIRONMENT ARE RELATED TO THE FUNCTIONS SERVED.

0205005003 EXPLAIN HOW MAMMALS ARE BETTER ADAPTED FOR THE PROTECTION AND SURVIVAL OF THEIR OFFSPRING.

0205005004 INFER THAT THE ENVIRONMENT OF PAST ANIMALS WAS DIFFERENT FROM THE PRESENT ENVIRONMENT FOUND.

0205005005 INFER SOME OF THE STRUCTURAL ADAPTATIONS OF EARLY LIFE.

0205005006 DEVELOP A SEQUENTIAL PATTERN ON A CHART FOR THE APPEARANCE OF LIFE ON EARTH.

0205025 ADAPTATION (HABITAT)

0205025001 KNOW THAT THERE IS AN INTERCHANGE OF MATTER AND ENERGY BETWEEN THE LIVING AND NON-LIVING WORLD.

0205025002 KNOW THAT MOST LIVING THINGS DEPEND ON A CONTINUOUS SUPPLY OF OXYGEN AND FOOD.

0205025003 KNOW THAT EACH KIND OF ORGANISM IS ADAPTED TO A SPECIAL ENVIRONMENT.

0205025004 KNOW THAT THE ENVIRONMENT TO WHICH AN ORGANISM IS ADAPTED SUPPLIES THE NECESSARY CONDITIONS FOR ITS SURVIVAL.

0205025005 KNOW THAT MAN, LIKE ALL OTHER LIVING THINGS, IS DEPENDENT ON THE ENVIRONMENT FOR THE SUPPLY OF NECESSARY THINGS IN IT.

0205025006 KNOW THAT AN ORGANISM MUST HAVE AN ENVIRONMENT THAT SUPPLIES ITS NECESSARY REQUIREMENTS.

0205025007 INFER THAT ENVIRONMENTAL CONDITIONS AFFECT THE DEVELOPMENT OF AN ORGANISM.

S FROM EGG TO ADULT PROVIDES MANY EXAMPLES OF ADAPTIVE CHANGE AND DEVELOPMENT.

AN ANIMAL TO ITS ENVIRONMENT CAN BE UNDERSTOOD BY RELATING BONE STRUCTURE
ER ADAPTED FOR THE PROTECTION AND CARE OF THEIR YOUNG.

F PAST ANIMALS WAS DIFFERENT FROM THE PRESENT ENVIRONMENT IN WHICH THEIR FOSSILS ARE
ADAPTATIONS OF EARLY LIFE.

ON A CHART FOR THE APPEARANCE OF THE DIFFERENT FORMS OF LIFE.

HANGE OF MATTER AND ENERGY BETWEEN THE ORGANISM AND ITS ENVIRONMENT.

DEPEND ON A CONTINUOUS SUPPLY OF OXYGEN.

ISM IS ADAPTED TO A SPECIAL ENVIRONMENT.

WHICH AN ORGANISM IS ADAPTED SUPPLIES ALL THE ORGANISM'S NEEDS.

R LIVING THINGS, IS. DEPENDENT ON HIS ENVIRONMENT---ON ALL THE MATTER AND

A VE AN ENVIRONMENT THAT SUPPLIES ITS NEEDS IN ADEQUATE AMOUNTS.

DITIONS AFFECT THE DEVELOPMENT OF AN ORGANISM.

0205025008 TESTS OF FOODS GIVE INSIGHT INTO THE MATTER LIVING THINGS TAKE

0205025009 KNOW THAT A LIVING THING IS THE PRODUCT OF ITS HEREDITY AND ENVIRONMENT

0205025010 DEVELOP UNDERSTANDING OF THE IMPORTANCE OF ADAPTATIONS OF STRUCTURE

0205025011 KNOW THAT STRUCTURAL ADAPTATIONS TO ENVIRONMENTS OF THE PAST OCCUR

0205025012 KNOW THAT GRADUAL CHANGES OF STRUCTURE IN WATER ANIMALS OF THE ANCIENT

0205025013 COMPARE ENVIRONMENTAL CONDITIONS IN WATER AND ON LAND AND RELATE

0205025014 COMPARE ENVIRONMENTAL CONDITIONS IN WATER AND ON LAND AND RELATE

0205025015 ANALYZE THE RELATIONSHIP BETWEEN ENVIRONMENT AND LIVING THINGS.

0205025016 PREDICT WHICH OF SEVERAL EXPERIMENTS IS BEST DESIGNED TO ANSWER GIVEN QUESTIONS
(TEMPERATURE, AIR SUPPLY, LIGHT, WATER, FOOD; ON BEHAVIOR OF

0205030 ADAPTATION (MAN)

0205030001 WRITES A PARAGRAPH DESCRIBING THE DETAILS OF PROBLEMS MAN WILL FACE (HEAT, COLD).

0205035 ADAPTATION (PLANTS)

0205035001 INFER THAT CELL WALLS SUPPORT AND STIFFEN THE STRUCTURE OF PLANTS.

0205035002 KNOW THAT AS PRIMITIVE PLANTS DEVELOPED STIFFER CELL WALLS, THE

INTO THE MATTER LIVING THINGS TAKE FROM THEIR ENVIRONMENT.
 THE PRODUCT OF ITS HEREDITY AND ENVIRONMENT.
 IMPORTANCE OF ADAPTATIONS OF STRUCTURE TO SUCCESSFUL SURVIVAL IN AN ENVIRONMENT.
 CHANGES TO ENVIRONMENTS OF THE PAST OCCURRED SLOWLY.
 STRUCTURE IN WATER ANIMALS OF THE ANCIENT SEAS ADAPTED THEM FOR LAND LIVING.
 CHANGES IN WATER AND ON LAND AND RELATE THESE ENVIRONMENTS TO DEVELOPING LIFE FORMS.
 CHANGES IN WATER AND ON LAND AND RELATE THESE ENVIRONMENTS TO DEVELOPING LIFE FORMS.
 BETWEEN ENVIRONMENT AND LIVING THINGS.
 EXPERIMENTS IS BEST DESIGNED TO ANSWER GIVEN QUESTION ABOUT EFFECT OF VARIABLES
 (LIGHT, WATER, FOOD) ON BEHAVIOR OF GROWTH OF ORGANISM IN ITS ENVIRONMENT.
 THE DETAILS OF PROBLEMS MAN WILL FIND IN A NEW ENVIRONMENT (OXYGEN, ATMOSPHERE,
 AND STIFFEN THE STRUCTURE OF PLANTS.
 DEVELOPED STIFFER CELL WALLS, THEY GREW TALLER.

0205040 ADAPTATION (PLANTS AND ANIMALS)

0205040001 KNOW THAT LIVING THINGS HAVE CHANGED OVER THE AGES.

0205040002 KNOW THAT LIVING THINGS HAVE BEEN CHANGING SINCE LIFE FIRST B

0205040003 DEVELOP A SEQUENTIAL PATTERN FOR THE APPFARANCE OF THE DIFFERE

0205050 AMPHIBIANS

0205050001 OBSERVE AND STUDY THE LIFE CYCLE OF AN AMPHIBIAN.

0205050002 DESCRIBE GROWTH AND DEVELOPMENT OF FROG. OBSERVE EGGS IN ACQU
GROW TO FROGS.

0205050003 DESCRIBE FROG BEGINNING LIFE AS SINGLE CELL MULTIPLIES BY CELL
BREATHING FROG.

0205055 ANIMALS

0205055001 IDENTIFY BALL ON THE END OF THIGH BONE AND SOCKET OF HIP BONE.

0205055002 RECONSTRUCT THE LEG BONES OF A COOKED CHICKEN AND LABEL THE BAL

0205055003 ORDER BONES OF THE LEG OF COOKED CHICKEN WHEN GIVEN THEM SEPARAT

0205055004 CONTROL THE ENVIRONMENT AND DIET OF AN ANIMAL AND OBSERVE
THE NON-CONTROLLED ANIMAL.

0205055005 CONSTRUCT SMALL SYSTEM FOR OBSERVING SEALED-IN ORGANISM. SEAL AG

HANGED OVER THE AGES.

EN CHANGING SINCE LIFE FIRST BEGAN ON EARTH OVER TWO BILLION YEARS AGO.

OR THE APPPEARANCE OF THE DIFFERENT FORMS OF LIFE.

LE OF AN AMPHIBIAN.

OF FROG. OBSERVE EGGS IN ACQUARIUM AS THEY DEVELOP AND HATCH INTO TADPOLES AND

S SINGLE CELL MULTIPLIES BY CELL DIVISION, FORMS STRUCTURES, DEVELOPS INTO AIR

IGH BONE AND SOCKET OF HIP BONE.

COOKED CHICKEN AND LABEL THE BALL AND SOCKET JOINTS CORRECTLY.

ED CHICKEN WHEN GIVEN THEM SEPARATED.

ET OF AN ANIMAL AND OBSERVE THE CHANGE IN THE CONTROLLED ANIMAL WITH THAT OF

IRVING SEALED-IN ORGANISM. SEAL AQUATIC PLANTS, SAND, AQUARIUM WATER IN JAR.

- 0205065 **CELLS**
- 0205065001 **DEFINE IN WRITING AND ORALLY WHAT THE WORD CELL MEANS.**
- 0205065002 **CONSTRUCT MICROSCOPE SLIDE PREPARATION. PLACE SCRAPING OF INSIDE OF
ADD COVER SLIP.**
- 0205065003 **DESCRIBE SHAPE OF CELLS.**
- 0205065004 **IDENTIFY NUCLEUS IN CELL.**
- 0205065005 **CONSTRUCT MODEL OF A CELL. USE MIXTURE OF WATER, CLEAR GELATIN, STARCH
WILL GARDEN INSIDE SEALED PLASTIC BAG.**
- 0205065006 **IDENTIFY PARTS OF MODEL SIMILAR TO CELL, AS GELATIN FOR CYTOPLASM
AND STARCH FOR NUCLEUS.**
- 0205065007 **KNOW THAT CELLS INTERCHANGE MATTER AND ENERGY WITH THE ENVIRONMENT.**
- 0205065008 **INFER, THROUGH INVESTIGATION, THAT A YEAST CELL GETS ENERGY FOR
GROWTH FROM SUGAR.**
- 0205065009 **DEMONSTRATE THAT YEAST CELLS INCREASE WITH REPRODUCTION. COMPARE SMA
WITH WATER AND SAME AMOUNT MIXED WITH SUGAR AND WATER. FILTER BOTH
AND OBSERVE.**
- 0205065010 **DESCRIBE DIFFERENCE DUE TO GROWTH AND REPRODUCTION OF YEAST CELLS
WITH AND WITHOUT SUGAR.**
- 0205065011 **DEMONSTRATE THAT A CELL MEMBRANE ALLOWS SOME MATERIALS TO PASS THROUGH
SOLUTION. STARCH TURNS BLUE-BLACK.**
- 0205065012 **DESCRIBE THAT IODINE SOLUTION PASSES INTO CELL MODEL; STARCH DID
NOT.**
- 0205065013 **KNOW THAT ENERGY WITHIN A CELL COMES FROM A CYCLE OF BREAKING DOWN
MOLECULES (THE CELL ENERGY PROCESS).**
- 0205065014 **KNOW THAT ENERGY IS A CYCLICAL PROCESS--ALL WITHIN A TINY CELL.**

WHAT THE WORD CELL MEANS.

PREPARATION: PLACE SCRAPING OF INSIDE CHEEK ON DROP OF WATER ON GLASS SLIDE; STAIN;

MIXTURE OF WATER, CLEAR GELATIN, STARCH, COLOGNE, SMALL PIECES OF CLAY; GELATIN
IN PLASTIC BAG.

RELATIONSHIP TO CELL, AS GELATIN FOR CYTOPLASM PLASTIC BAG FOR MEMBRANE, CLAY FOR NUCLEUS.

INTERACTION WITH THE ENVIRONMENT.

WHAT A YEAST CELL GETS ENERGY FOR GROWTH FROM SUGAR.

RELATIONSHIP WITH REPRODUCTION. COMPARE SMALL AMOUNT OF YEAST CELLS AFTER 3 DAYS MIXED
WITH SUGAR AND WATER. FILTER BOTH ONTO PAPER.

RELATIONSHIP WITH AND REPRODUCTION OF YEAST CELLS IN SUGAR SOLUTION.

HOW IT ALLOWS SOME MATERIALS TO PASS THROUGH. USE CELL MODEL; PLACE IN IODINE
SOLUTION.

RELATIONSHIP WITH STARCHES INTO CELL MODEL; STARCH DID NOT COME OUT (IODINE NOT TURNED BLUE-BLACK).

WHERE ENERGY COMES FROM A CYCLE OF BREAKING DOWN AND BUILDING HIGH ENERGY CONTAINING
(CELLS).

RELATIONSHIP WITH PROCESS--ALL WITHIN A TINY CELL.

- 0205065015 DESCRIBE THE ENERGY CYCLE IN CELLS.
- 0205065016 DERIVE INSIGHT INTO DIFFUSION AS A BASIC PROCESS IN ALL BODIES, ES
- 0205065017 UNDERSTAND THAT THE CELL MEMBRANE DELIMITS THE CELL AS A FUNCTIONIN
- 0205065018 THROUGH THE CONSTRUCTION OF MODELS, GAIN A BETTER IDEA OF CELL ST
- 0205065019 KNOW THAT CELLS ARE SPECIALIZED FOR DIFFERENT FUNCTIONS.
- 0205065020 KNOW THAT CELLS REPRODUCE THEMSELVES.
- 0205065021 KNOW THAT WHEN CELLS DIVIDE, EACH NEW CELL HAS ITS OWN NUCLEUS,
- 0205065022 PERCEIVE THAT CELL DIVISION TAKES PLACE BY CONTINUAL DOUBLING.
- 0205065023 KNOW THAT A SINGLE-CELLED ORGANISM PERFORMS ALL THE LIFE FUNCTIONS
COMMUNITY OF INTERDEPENDENT CELLS.
- 0205065024 BUILD A FOUNDATION FOR UNDERSTANDING ORGANIZATION OF CELL STRUC
- 0205065025 EXPLAIN THE FUNCTIONS OF EACH TYPE CELL IN THE BODY.
- 0205065026 VISUALIZE HOW CHROMOSOMES DUPLICATE IN CELL DIVISION.
- 0205065027 DEMONSTRATE KNOWLEDGE OF ANIMAL CELL REPRODUCTION BY DRAWING THE
CELL HAS THE SAME NUMBER OF CHROMOSOMES, AND NAMING SUBSTANCES
- 0205065028 KNOW THAT GROWTH IN A MANY-CELLED ORGANISM CONSISTS IN MULTIPLICA

A BASIC PROCESS IN ALL BODIES, ESPECIALLY CELLS.

DELIMITS THE CELL AS A FUNCTIONING UNIT.

STUDENTS GAIN A BETTER IDEA OF CELL STRUCTURE.

FOR DIFFERENT FUNCTIONS.

CELLS.

WHEN A NEW CELL HAS ITS OWN NUCLEUS.

CELLS INCREASE IN NUMBER BY CONTINUAL DOUBLING.

THE CELL PERFORMS ALL THE LIFE FUNCTIONS WITHIN THE CELL; A MANY-CELLED ORGANISM IS A

DIFFERENT ORGANIZATION OF CELL STRUCTURE FOR CELL FUNCTION WITHIN ORGANISMS.

DIFFERENT CELL TYPES IN THE BODY.

STAGES IN CELL DIVISION.

CELL REPRODUCTION BY MITOSIS AND MEIOSIS, AND NAMING

DRAWING THREE STAGES OF CELL DIVISION; STATE EACH NEW SUBSTANCE RESPONSIBLE.

THE CELL IS THE BASIC UNIT OF LIFE; AN ORGANISM CONSISTS IN MULTIPLICATION AND DIFFERENTIATION OF CELLS.

- 0205065029 DISCOVER THE DISTINCTION BETWEEN CYTOPLASM AND PROTOPLASM
- 0205065030 KNOW THAT PROTOPLASM, THE LIVING MATERIAL IN THE CELL, IS COMPOSED OF CRUST AND ATMOSPHERE.
- 0205065031 KNOW THAT PROTOPLASM CONTAINS COMMON ELEMENTS AND COMPOUNDS
- 0205065032 WRITE OR TELL THREE OF THE FIVE KINDS OR COMPOUNDS FOUND IN PROTOPLASM
- 0205065033 SHOW RECOGNITION OF THE WORD PROTOPLASM THROUGH A MATCHING ACTIVITY
- 0205065034 KNOW THAT THE CELL IS THE UNIT OF STRUCTURE AND FUNCTION
- 0205065035 KNOW THAT FOOD SUBSTANCES DIFFUSE THROUGH MEMBRANES.
- 0205065036 KNOW THAT CELLS WITH DIFFERENT FUNCTIONS APPEAR IN DIFFERENT TISSUES
- 0205065037 SEE THE UNITY (THE BASIC STRUCTURE) IN ALL CELLS AND THE DIVERSITY OF CELLS
- 0205065038 KNOW THAT CELLS SECRETE NONLIVING MATERIAL.
- 0205065039 KNOW THAT IN MANY-CELLED ORGANISMS, GROUPS OF CELLS AND TISSUES ARE SPECIALIZED TO PERFORM THE BODY'S FUNCTIONS.
- 0205065040 KNOW THAT SIMILAR CELLS WITH SIMILAR FUNCTIONS ARE ORGANIZED INTO TISSUES
- 0205065041 KNOW THAT ORGANISMS ARE MADE UP OF CELLS, THE UNIT OF STRUCTURE AND FUNCTION
- 0205065042 MAKE DRAWINGS OF ALL THE TYPES OF CELLS IN THE BODY AND LABEL THEM

BETWEEN CYTOPLASM AND PROTOPLASM.

LIVING MATERIAL IN THE CELL, IS COMPOSED OF ELEMENTS AND COMPOUNDS IN THE EARTH'S

AINS COMMON ELEMENTS AND COMPOUNDS.

E FIVE KINDS OR COMPOUNDS FOUND IN CELLS.

ORD PROTOPLASM THROUGH A MATCHING TEST.

UNIT OF STRUCTURE AND FUNCTION; A LIVING THING DEVELOPS FROM A SINGLE CELL.

DIFFUSE THROUGH MEMBRANES.

ERENT FUNCTIONS APPEAR DIFFERENT IN DETAIL, BUT NOT IN BASIC STRUCTURES.

STRUCTURE) IN ALL CELLS AND THE DIVERSITY IN TERMS OF ADAPTATION TO FUNCTION.

ONLIVING MATERIAL.

ORGANISMS, GROUPS OF CELLS AND TISSUES ARE ORGANIZED INTO ORGAN SYSTEMS, ALL
E BODY'S FUNCTIONS.

ITH SIMILAR FUNCTIONS ARE ORGANIZED INTO TISSUES.

MADE UP OF CELLS. THE UNIT OF STRUCTURE AND FUNCTION IN THE ORGANISM IS THE CELL.

TYPES OF CELLS IN THE BODY AND LABEL DRAWINGS.

0205065043 KNOW THAT THE SINGLE-CELLED ORGANISMS THAT DEVELOPED IN THE EARLY LATER ERAS; ADAPTATION TO THE ENVIRONMENT PRODUCED MORE COMPLEX ST

0205070 CLASSIFIC/ ION

0205070001 KNOW THAT OBJECTS AND EVENTS CAN BE GROUPED OR CLASSIFIED

0205075 CLASSIFY (ANIMALS)

0205075001 GIVEN THE CHARACTERISTICS OF SEVERAL ANIMALS, CONSTRUCT A NEW CLAS AND HARMFU
SIMILARITIES, I.E., PETS, SMALL ANIMALS, LARGE ANIMALS

0205075002 WHEN GIVEN A LIST OF THIRTY DIFFERENT ANIMALS (OR PICTURES O
30 OF THE ANIMALS OR ANIMAL PICTURES INTO GROUPS, I.E., MAMMALS, B

0205075003 WRITE A PARAGRAPH OR TWO ON THIS TOPIC: HOW SCIENTISTS KNOW WHICH

0205075004 DESCRIBE AT LEAST TWO CHANGES IN THE STRUCTURE OF A HORSE DURI

0205075005 EXPLORE EVIDENCES OF LIFE IN THE PAST. DRAW INFERENCES ABOUT A FO
FUNCTIONS OF BONES FROM A LIVING ANIMAL.

0205080 CLASSIFY BY FIVE SENSES

0205080001 RECOGNIZE SEVERAL PROPERTIES OF AN OBJECT OR SUBSTANCE INCLUDING
STATE OF MATTER; RECOGNIZE THE SENSE USED TO DETERMINE EACH OF TH

0205085 CLASSIFY BY KIND, FORM, AND PROPERTIES

0205085001 USING A GRADUATED CYLINDER, MEASURE QUANTITIES OF WATER TO WITHIN

FORMS THAT DEVELOPED IN THE EARLY SEAS GAVE RISE TO THE MANY-CELLED ORGANISMS OF THE ENVIRONMENT PRODUCED MORE COMPLEX STRUCTURES.

BE GROUPED OR CLASSIFIED.

SMALL ANIMALS, CONSTRUCT A NEW CLASSIFICATION SYSTEM GROUPING ANIMALS BY THEIR SIZE, SMALL ANIMALS, LARGE ANIMALS AND HARMFUL ANIMALS.

IDENTIFY ANIMALS (OR DRAW PICTURES OF THIRTY DIFFERENT ANIMALS), CLASSIFY AT LEAST SEVERAL INTO GROUPS, I.E., MAMMALS, BIRDS OR AMPHIBIANS.

TOPIC: HOW SCIENTISTS KNOW WHICH BONES OF A FOSSIL FIT TOGETHER.

THE STRUCTURE OF A HORSE DURING SIXTY MILLION YEARS.

INSTEAD, DRAW INFERENCES ABOUT A FOSSIL ANIMAL BY EXAMINING THE STRUCTURE AND FUNCTION OF AN ANIMAL.

THE OBJECT OR SUBSTANCE INCLUDING COLOR, SHAPE, SIZE, TEXTURE, TASTE, ODDOR, USE USED TO DETERMINE EACH OF THESE PROPERTIES.

PROPERTIES OF WATER TO WITHIN TWO MILLILITERS OF EXACTNESS.

0205085002 USE AN ELEMENTARY BALANCE SCALE TO WEIGH OBJECTS TO THE NEAREST

0205090 CLASSIFY (MATTER)

0205090001 GIVEN A LIST OF SUBSTANCES, IDENTIFY EACH SUBSTANCE AS A GAS, LIQ

0205090002 GIVEN A LIST OF SUBSTANCES, IDENTIFY EACH SUBSTANCE AS A GAS, LIQ

0205090003 GIVEN SITUATION IN WHICH OBJECT OR SUBSTANCE MUST FIT INTO PRE
CAPACITY, EXPLAIN WHETHER IT IS MOST IMPORTANT TO KNOW ABOUT MA

0205090004 IDENTIFY AN ACCEPTABLE DEFINITION OF THE TERMS MATTER, MOLECULE

0205090005 ON A DIAGRAM SHOWING THE PARTS OF AN ATOM, RECOGNIZE THE NUCLEUS.

0205100 CLASSIFY (PLANT AND ANIMAL)

0205100001 KNOW THAT SEDIMENTARY DEPOSITS INDICATE AGE OF FOSSILS.

0205100002 INFER THAT THE AGE OF FOSSILS CAN BE DATED WITH GREAT ACCURACY

0205100003 FROM A GRAPH OF SEDIMENTARY LAYERS AND FOSSILS DETERMINE THE OLDE

0205100004 KNOW THAT LIVING THINGS CAN GROW AND CAN REPRODUCE.

0205100005 KNOW THAT PLANTS AND ANIMALS ARE USEFUL TO MAN IN MANY WAYS.

TO WEIGH OBJECTS TO THE NEAREST GRAM.

IDENTIFY EACH SUBSTANCE AS A GAS, LIQUID, OR A SOLID.

IDENTIFY EACH SUBSTANCE AS A GAS, LIQUID, OR A SOLID.

FOR SUBSTANCE MUST FIT INTO PRESCRIBED SPACE OR CONFORM TO GIVEN WEIGHT
MOST IMPORTANT TO KNOW ABOUT MATERIAL'S WEIGHT OR ITS VOLUME.

DEFINITION OF THE TERMS MATTER, MOLECULE, ATOM, ELECTRON, AND NEUTRON.

FROM AN ATOM, RECOGNIZE THE NUCLEUS, A PROTON, AN ELECTRON, AND A NEUTRON.

INDICATE AGE OF FOSSILS.

ROCKS CAN BE DATED WITH GREAT ACCURACY.

ROCKS AND FOSSILS DETERMINE THE OLDEST.

ROCKS CAN BE REPRODUCED.

ROCKS ARE USEFUL TO MAN IN MANY WAYS.

0205105 CLASSIFY (PLANT AND ANIMAL CELLS)

0205105001 GIVEN A SIMPLE SLIDE AND A MICROSCOPE, CLASSIFY OBJECTS ON THE SLIDE (E.G., AIR BUBBLES, DIRT, CRYSTALS).

0205105002 KNOW THAT PLANT AND ANIMAL CELLS HAVE BASICALLY SIMILAR STRUCTURE

0205105003 IDENTIFY FROM GROUP OF PICTURES EXHIBITING CELL STRUCTURE
1. PLANT CELLS 2. ANIMAL CELLS, OR 3. BOTH.

0205105004 KNOW THAT PLANT AND ANIMAL CELLS CHANGE MATTER AS THEY INTERCHANGE

0205110 CLOTH

0205110001 EVALUATE THE USEFULNESS OF PLANT AND ANIMAL FIBERS.

0205110002 DISTINGUISH BETWEEN WOOL AND COTTON. OBSERVE ODOR OF BURNING P

0205115 ECOLOGY

0205115001 AFTER VIEWING A FILM ON CONSERVATION LIST FIVE CONSERVATION

0205115002 USING LIBRARY RESOURCES, WRITE TO THE SATISFACTION OF THE TEACHER
PRACTICES!

0205115003 RELATE CONSERVATION PRACTICES TO 3 OF 5 COMPONENTS IN HIS ENVIRONMENT

0205120 ELECTRICITY

0205120001 WHEN GIVEN A LESSON ON THE USEFULNESS OF ELECTRICITY OF TODAY, WRITE
BE LIKE WITH OUT ELECTRICITY.

CLASSIFY OBJECTS ON THE SLIDE AS CELLS OR OBJECTS WHICH ARE NOT CELLS
STRUCTURALLY SIMILAR STRUCTURES.

ING CELL STRUCTURE THOSE CELLULAR CHARACTERISTICS PRESENT ONLY
TH.
MATTER AS THEY INTERCHANGE MATTER AND ENERGY WITH THE ENVIRONMENT.

IMAL FIBERS.

PERVE ODOR OF BURNING PROTEIN WITH WOOL AND NOT COTTON.

T FIVE CONSERVATION PRACTICES THAT SHOULD BE MODIFIED.

TSFACTION OF THE TEACHER, A COMPOSITION TITLED 'ACCEPTED CONSERVATION
COMPONENTS IN HIS ENVIRONMENT (WATER, AIR, WILDLIFE, LAND, MINERAL).

ELECTRICITY OF TODAY, WRITE AT LEAST TWO PARAGRAPHS ON WHAT LIFE WOULD

0205120002 WHEN PROVIDED WITH APPROPRIATE MATERIALS TO BUILD AN ELECTRIC LIGHT BULB), HYPOTHESIZE WHAT WOULD HAPPEN IF ALL THE COMPONENTS

0205125 ENERGY TRANSFORMATION

0205125001 KNOW THAT GRAVITATION IS UNIVERSAL.

0205125002 KNOW THAT WEIGHT IS A MEASURE OF GRAVITATIONAL PULL ON A MASS.

0205125003 INFER THAT THE LESS THE MASS, THE LESS ITS GRAVITATIONAL PULL AND HOW TO OVERCOME IT.

0205125004 INFER THAT THE GREATER THE MASS, THE GREATER ITS GRAVITATIONAL PULL AND HOW TO BE USED TO OVERCOME IT.

0205125005 KNOW THAT TO MOVE AN OBJECT, ENERGY MUST BE APPLIED TO OVERCOME IT.

0205125006 TELL HOW ENERGY IS USEFUL TO YOU WHEN RELEASED.

0205125007 KNOW THAT CHANGES ARE PREDICTABLE.

0205125008 KNOW THAT MATTER CAN BE CHANGED INTO ENERGY. HOWEVER THE TOTAL MASS REMAINS THE SAME.

0205125009 KNOW THAT WHEN ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE TOTAL ENERGY REMAINS THE SAME.

0205135 ENERGY TRANSFORMATION (ATOMS)

0205135001 KNOW THAT THE EARTH'S MATTER IS BUILT UP OF ATOMS AND HOW THEY ARE COMBINED.

0205135002 KNOW THAT AN ELEMENT IS MADE UP OF ONE KIND OF ATOM, AND HOW THEY ARE COMBINED.

MATERIALS TO BUILD AN
WOULD HAPPEN IF ALL THE

ELECTRICAL CIRCUIT (DRY CELL, COPPER WIRE AND FLASH
COMPONENTS WERE CONNECTED CORRECTLY.

RSAL.

OF GRAVITATIONAL PULL ON A MASS.

THE LESS ITS GRAVITATIONAL PULL AND THE LESS THE ENERGY WHICH MUST BE USED TO

S, THE GREATER ITS GRAVITATIONAL PULL AND THE GREATER THE ENERGY WHICH MUST

ENERGY MUST BE APPLIED TO OVERCOME THE PULL OF GRAVITATION.

YOU WHEN RELEASED.

ABLE.

ED INTO ENERGY. HOWEVER THE TOTAL AMOUNT OF MATTER AND ENERGY IN THE UNIVERSE

FROM ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF ENERGY REMAINS UNCHANGED.

IS BUILT UP OF ATOMS

COMBINED IN MANY WAYS.

IF ERIC ONE KIND OF ATOM,

WITH A DEFINABLE SET OF PROPE

ATOMS ARE THE

0205135003 TELL OR SHOW BY MODEL THAT ALL MATTER IS COMPOSED OF AT

0205135004 ON A DIAGRAM SHOWING THE PARTS OF AN ATOM, RECOGNIZE THE NU

0205135005 INFER THERE IS NO CHANGE IN WEIGHT AS ATOMS RECOMBINE IN

0205145 ENERGY TRANSFORMATION (CARBON DIOXIDE)

0205145001 EXAMINE THE MAKING OF CARBON DIOXIDE BY YEAST, AND INFER TH

0205145002 DEMONSTRATE YEAST IN SUGAR MAKES CARBON DIOXIDE. PUT PO
SET 10. MINUTES; BUBBLES TURN LIMEWATER MILKY.

0205145003 CONSTRUCT CARBON DIOXIDE GENERATOR. USE EGG SHELLS IN VI
DISPLACEMENT.

0205145004 DEMONSTRATE TEST FOR CARBON DIOXIDE. USE GAS IN ABOVE AC
CLOUDY.

0205145005 DEMONSTRATE SIMILARITY OF MILKY LIMEWATER TO EGGSHELL. CO
ACTION ON LIMEWATER.

0205145006 SHOW SOAKED SEEDS MAKE CARBON DIOXIDE. PUT SOAKED LIMA BE
SQUEEZE GENERATOR; GAS BUBBLES INTO LIMEWATER, TURNS MI

0205145007 DESCRIBE BUBBLES OF GAS GIVEN OFF AS CARBON DIOXIDE.

0205150 ENERGY TRANSFORMATION (CHEMICAL)

0205150001 KNOW THAT IN CHEMICAL AND PHYSICAL CHANGE, THE TOTAL AM

0205150002 STATE THE CONCEPT THAT IN AN ORDINARY CHEMICAL REACTION MA

MATTER IS COMPOSED OF ATOMS.

AN ATOM, RECOGNIZE THE NUCLEUS, A PROTON, AN ELECTRON, AND A NEUTRON.

AS ATOMS RECOMBINE INTO NEW SUBSTANCES.

(OXIDE)

IDE BY YEAST, AND INFER THAT YEAST CELLS ARE ALIVE.

CARBON DIOXIDE. PUT POWDERED YEAST, SUGAR, IN WARM WATER IN GAS GENERATOR;
LIMEWATER MILKY.

OR. USE EGG SHELLS IN VINEGAR IN FLASK; COLLECTS BUBBLES BY WATER

OR. USE GAS IN ABOVE ACTIVITIES; ADD LIMEWATER; MIX; LIMEWATER TURNS

LIMEWATER TO EGGSHELL. COMPARE BUBBLING ACTION OF VINEGAR ON SHELL AND SIMILAR

OXIDE. PUT SOAKED LIMA BEANS ON WET COTTON IN GAS GENERATOR; LET STAND;
LIMEWATER, TURNS MILKY.

AS CARBON DIOXIDE.

CHANGE, THE TOTAL AMOUNT OF MATTER REMAINS UNCHANGED.

IN ANY CHEMICAL REACTION MATTER IS NEITHER LOST OR GAINED.

- 0205150003 GAIN AN UNDERSTANDING OF CHEMICAL PROPERTIES AND INFER
- 0205150004 KNOW THAT CHEMICAL PROPERTIES HELP IN IDENTIFYING A
- 0205150005 KNOW THAT WORD EQUATIONS HELP TO DESCRIBE A CHEMICAL
- 0205150006 ESTABLISH THE CHEMICAL TEST FOR DISTINGUISHING ACIDS,
- 0205150007 DISCOVER THAT LITMUS PAPER IS A CHEMICAL INDICATOR.
- 0205150008 IDENTIFY SODA AS NEUTRAL, LIMEWATER AS BASIC, LEMON
- 0205150009 BY DEMONSTRATION CHOOSE WHAT KIND OF SOLUTION CAUSES
- 0205150010 DEMONSTRATE CHANGING COLOR OF LITMUS PAPER; PLACE
PLACE AMMONIA ON PINK AND BLUE LITMUS. PINK TURNS BLUE.
- 0205150011 DEMONSTRATE TEST FOR ACIDS AND BASES. PLACE SODA,
CHANGE BLUE, LIMEWATER TURNS PINK TO BLUE, LEMON TURN
- 0205150012 KNOW THAT CHEMICAL REACTIONS ARE A DEPENDABLE MEANS OF
- 0205150013 EXPERIENCE SOME TECHNIQUES A CHEMIST USES IN IDENTIFYING
- 0205150014 GAIN NEW AND DEEPER UNDERSTANDING OF THE CHEMIST'S 100
- 0205150015 KNOW THAT NO ATOMS ARE GAINED OR LOST IN A CHEMICAL
- 0205150016 KNOW THAT IN CHEMICAL CHANGE, MATTER IS NOT DESTROYED,

REAL PROPERTIES AND INFER THE EXISTENCE OF MOLECULES.
 HELP IN IDENTIFYING A SUBSTANCE.
 TO DESCRIBE A CHEMICAL REACTION.
 DISTINGUISHING ACIDS, BASES, AND NEUTRAL SUBSTANCES.
 CHEMICAL INDICATOR.
 WATER AS BASIC; LEMON JUICE AS ACIDIC.
 END OF SOLUTION CAUSES PINK LITMUS TO TURN PINK.
 LITMUS PAPER; PLACE VINEGAR ON PINK AND BLUE LITMUS. BLUE TURNS PINK;
 LITMUS. PINK TURNS BLUE.
 BASES. PLACE SODA, LIMEWATER, LEMON JUICE ON RED, BLUE LITMUS. SODA WON'T
 TURN TO BLUE, LEMON TURN BLUE TO PINK.
 IS A DEPENDABLE MEANS OF TESTING THE PRESENCE OF A SUBSTANCE.
 CHEMIST USES IN IDENTIFYING UNKNOWN SUBSTANCES.
 BUILDING OF THE CHEMIST'S 100 BUILDING BLOCKS.
 OR LOST IN A CHEMICAL CHANGE.
 MATTER IS NOT DESTROYED, ONLY CHANGED FROM ONE FORM TO ANOTHER.

- 0205150017 GIVEN A CHEMICAL CHANGE, SUGGEST VARIABLES THAT COULD AFFECT
- 0205150018 GIVEN DESCRIPTION OF A PHYSICAL OR CHEMICAL CHANGE, PREDIC.
CHANGE.
- 0205150019 GIVEN A SERIES OF SITUATIONS IN WHICH CHANGE HAS TAKEN PLACE,
CHANGES.
- 0205150020 WHEN PERFORMING AN EXPERIMENT, RECOGNIZE AND RECORD SIGNS OF
- 0205150021 CONSTRUCT GAS GENERATOR FROM PAPER MILK CARTON SO THAT SIDES AP
- 0205150022 DESCRIBE EGGSHELL AND WHITE SUBSTANCE AS CALCIUM CARBONATE
- 0205155 ENERGY TRANSFORMATION (COMBUSTION)
- 0205155001 DEVELOP INSIGHT INTO COMBUSTION AS ANALOGOUS TO CERTAIN KINDS OF
- 0205160 ENERGY TRANSFORMATION (COMPOUNDS)
- 0205160001 CHOOSE THE TYPE OF COMPOUNDS FOUND IN THE GREATEST NUMBER
- 0205160002 KNOW THAT COMPOUNDS CAN BE BROKEN DOWN INTO THE ELEMENTS OF WHICH
- 0205160003 KNOW THAT COMPOUNDS MAY BE GROUPED BY THEIR CHEMICAL PROPERTIES
- 0205160004 DEMONSTRATE THE BREAKING DOWN OF A COMPOUND INTO ITS ELEMENTS

ABLES THAT COULD AFFECT THE CHANGE.
CHEMICAL CHANGE, PREDICT EFFECT OF A GIVEN MANIPULATED VARIABLE ON THAT
CHANGE HAS TAKEN PLACE, DESCRIBE THE PHYSICAL CHANGES AND THE CHEMICAL
SIZE AND RECORD SIGNS OF CHEMICAL CHANGE.
BLACK CARTON SO THAT SIDES ARE FLEXIBLE AND CAN BE SQUEEZED.
AS CALCIUM CARBONATE,
ANALOGOUS TO CERTAIN KINDS OF OXIDATION--FAST OR SLOW.
THE GREATEST NUMBER IN THE EARTH'S CRUST.
SPLIT INTO THE ELEMENTS OF WHICH THEY ARE COMPOSED.
THEIR CHEMICAL PROPERTIES.
SPLIT COMPOUND INTO ITS ELEMENTS USING MERCURIC OXIDE.

- 0205190 ENERGY TRANSFORMATION (ELEMENTS)
- 0205190001 KNOW THAT COMPOUNDS ARE BUILT UP FROM ELEMENTS.
- 0205190002 KNOW THAT ALL MATTER IS MADE UP OF ELEMENTS. ALL MATTER IS MADE UP OF PARTICLES.
- 0205190003 CHOOSE THE CORRECT NUMBER OF ELEMENTS IN A MULTIPLE CHOICE QUESTION.

- 0205210 ENERGY TRANSFORMATION (HEAT)
- 0205210001 KNOW THAT HEAT IS ONE FORM OF ENERGY THAT CAUSES MOTION OF MOLECULES.
- 0205210002 READ A THERMOMETER TO THE NEAREST DEGREE IN EITHER FAHRENHEIT OR CELSIUS.
- 0205210003 DEMONSTRATE THE BOILING POINTS OF VARIOUS WATER SOLUTIONS.
- 0205210004 IDENTIFY THE BOILING AND FREEZING POINTS OF WATER ON BOTH THE CELSIUS AND FAHRENHEIT SCALES.
- 0205210005 DESCRIBE HOW HEAT AFFECTS THE AMOUNT OF SOLID SUBSTANCE THAT WILL DISSOLVE IN WATER.
- 0205210006 GIVEN TWO STATES OF MATTER, EXPLAIN WHAT OCCURS WHEN HEAT IS ADDED TO THE MOLECULES BETWEEN THE FIRST AND SECOND STATE AND GIVE THE REASON.
- 0205210007 GIVEN A SUBSTANCE, DESCRIBE EFFECT THAT HEAT HAS ON THE VOLUME OF ACTION OR MOTION.

- 0205246 ENERGY TRANSFORMATION (MOLECULAR)
- 0205245001 KNOW THAT A MOLECULE IS THE SMALLEST PARTICLE OF A SUBSTANCE.
- 0205245002 DEMONSTRATE HOW MOLECULES OF PERFUME CAN PASS THROUGH RUBBER BAND PUSH IN CLEAN JAR FOR 15 MINUTES, ODOR IS IN JAR.

OM ELEMENTS.

ELEMENTS. ALL MATTER IS MADE UP OF ATOMS. ALL MATTER IS MADE UP OF

TS IN A MULTIPLE CHOICE QUESTION.

Y THAT CAUSES MOTION OF MOLECULES---AND OF GROUPS OF MOLECULES.

EGREE IN EITHER FAHRENHEIT SCALE OR THE CENTIGRADE SCALE,

ARIOUS WATER SOLUTIONS.

INTS OF WATER ON BOTH THE FAHRENHEIT SCALE AND THE CENTIGRADE SCALE,

OF SOLID SUBSTANCE THAT WILL DISSOLVE IN WATER,

WHAT OCCURS WHEN HEAT IS ADDED OR TAKEN AWAY, EXPLAIN WHAT HAS HAPPENED
ND SECOND STATE AND GIVE THE NAME OF THE PROCESS,

HAT HEAT HAS ON THE VOLUME OF SUBSTANCE AND ON THE SPEED OF THE MOLECULAR

PARTICLE OF A SUBSTANCE WHICH RETAINS THE PROPERTIES OF THE SUBSTANCE,

CAN PASS THROUGH RUBBER BALLOON. PLACE DROPS IN BALLOON, INFLATE, SEAL,
OR IN JAR.

0205245003

DEMONSTRATE FORMATION OF CRYSTALS. DISSOLVE 2/3 CUP OF SUGAR IN 1/4
ALLOW LIQUID TO COOL. CRYSTALS FORM ON SOLT.

0205245004

CONSTRUCT MODEL OF DRY ICE ROCKET ENGINE; USE PINT MILK CARTON, THREA

0205245005

DEMONSTRATE MILK CARTON ENGINE: IT REVOLVES AS DRY ICE CONTACTS WATER
THROUGH HOLE IN ONE DIRECTION. CARTON REVOLVES IN ANOTHER DIREC

0205255

ENERGY TRANSFORMATION (OXIDATION)

0205255001

KNOW THAT OTHER METALS COMBINE WITH OXYGEN TO FORM OXIDES; OXID
COMPOSITION.

0205255002

KNOW THAT RUSTING CAN BE PREVENTED BY KEEPING OXYGEN AND IRON ATOMS FR

0205255003

KNOW THAT RUSTING MAY BE HASTENED BY RAPID RELEASE OF OXYGEN IN A C

0205255004

DEMONSTRATE FORMATION OF RUST. COLLECT OXYGEN AFTER PLACING AN IR
SECOND. ALLOW TUBES TO SET TIL RUST FORMS.

0205255005

DESCRIBE RUST THAT FORMS AS A CHEMICAL COMPOUND, IRON OXIDE.

0205255006

KNOW THAT THE PRODUCTION OF CARBON DIOXIDE IS EVIDENCE OF OXIDATION

0205255007

INVESTIGATE OXIDATION IN SEVERAL EXAMPLES OF LIVING THINGS.

0205255008

KNOW THAT OXYGEN IS AN ACTIVE ELEMENT; IT COMBINES READILY WITH
COMPOUNDS.

0205255009

KNOW THAT IN OXIDATION, MATTER IS NEITHER GAINED NOR LOST.

3. DISSOLVE $\frac{2}{3}$ CUP OF SUGAR IN $\frac{1}{4}$ CUP BOILING WATER. SUSPEND BOLT IN LIQUID;
FORM ON BOLT.

ENGINE; USE PINT MILK CARTON, THREAD, TOOTHPICK, CLAY, WATER, DRY ICE.

IT REVOLVES AS DRY ICE CONTACTS WATER. PRODUCES CARBON DIOXIDE. IT ESCAPES
CARTON REVOLVES IN ANOTHER DIRECTION.

WITH OXYGEN TO FORM OXIDES; OXIDES CAN BE IDENTIFIED BY THEIR CHEMICAL

ED BY KEEPING OXYGEN AND IRON ATOMS FROM COMBINING.

D BY RAPID RELEASE OF OXYGEN IN A CHEMICAL REACTION.

COLLECT OXYGEN AFTER PLACING AN IRON NAIL IN ONE TEST TUBE, STEEL WOOL IN
RUST FORMS.

CHEMICAL COMPOUND, IRON OXIDE.

MON DIOXIDE IS EVIDENCE OF OXIDATION WITHIN LIVING THINGS.

EXAMPLES OF LIVING THINGS:

EMENT; IT COMBINES READILY WITH MANY OTHER ELEMENTS TO FORM MANY OXYGEN

IS NEITHER GAINED NOR LOST.

0205260 ENERGY TRANSFORMATION (OXYGEN)

0205260001 CONSTRUCT OXYGEN GAS GENERATOR. USE PLASTIC TUBING, FLASK, CLAY-
BUBBLES OF OXYGEN PASS THROUGH WATER. WATER DISPLACED FROM TUBE.

0205260002 DEMONSTRATE USE OF APPARATUS TO COLLECT OXYGEN.

0205270 ENERGY TRANSFORMATION (SOLAR)

0205270001 KNOW THAT THE STORED ENERGY OF THE SUN IS TRANSFORMED INTO OTHER K
ON THE PAST AS WELL AS ON THE PRESENT.

0205285 ENERGY TRANSFORMATION (WATER)

0205285001 DEMONSTRATE FORCE OF ICE. FILL PLASTIC CONTAINER WITH WATER, TAP O
OPEN.

0205290 EROSION

0205290001 KNOW THAT WEATHERING AND EROSION BREAK DOWN THE HARDEST ROCK.

0205290002 KNOW THAT PLANTS ARE AGENTS OF EROSION.

0205290003 KNOW THAT WIND AND WATER ARE AGENTS OF EROSION.

0205290004 KNOW THAT WEATHERING AND EROSION HELP BUILD UP NEW LAND.

0205290005 KNOW THAT THE ACTION OF WATER SORTS OUT SOIL PARTICLES, WHICH SETTLE
ROCKS.

0205290006 EXPLAIN THE DIFFERENCE BETWEEN WEATHERING AND EROSION AND GIVE EXA
THE EARTH.

USE PLASTIC TUBING, FLASK, CLAY, 3 PER CENT HYDROGEN PEROXIDE, YEAST,
WATER DISPLACED FROM TUBE.
COLLECT OXYGEN.

SUN IS TRANSFORMED INTO OTHER KINDS OF ENERGY; MAN'S ENVIRONMENT DEPENDS
ON IT.

PLASTIC CONTAINER WITH WATER, TAP ON LID, FREEZE WATER, LID WILL BE FORCED

BREAK DOWN THE HARDEST ROCK.

EROSION.

CAUSES OF EROSION.

HOW THEY HELP BUILD UP NEW LAND.

HOW THEY SORT OUT SOIL PARTICLES, WHICH SETTLE IN LAYERS AND EVENTUALLY FORM SEDIMENTARY

ROCKS. DESCRIBE WEATHERING AND EROSION AND GIVE EXAMPLES OF HOW EACH BREAK DOWN AND BUILD UP.

0205295

FISH

0205295001

CONSTRUCT AN AQUARIUM SYSTEM BY ESTABLISHING A TANK

CONTAINING WA

0205295002

DEMONSTRATE THAT TEMPERATURE OF WATER CHANGES LESS
MEASURE CHANGES IN AIR AND WATER DURING ENVIRONMENTAL

RAPIDLY THAN
TEMPERATURE C

0205295003

OBSERVE A FISH AND EXPLAIN HOW ITS STRUCTURE ADAPTS IT

TO ITS ENVIRO

0205295004

DESCRIBE ADAPTATIONS OF FISH FOR LIFE ACTIVITIES AS
BY OBSERVING FISH IN AN AQUARIUM AND BY READING

MOVEMENT, GET
REFERENCES.

0205300

FORCE AND MOTION

0205300001

KNOW THAT PRESSURE CAUSES MATTER TO MOVE.

0205300002

KNOW THAT ENERGY MUST BE SUPPLIED TO DEVELOP A FORCE

SUFFICIENT TO

0205300003

THROUGH INVESTIGATION, DEDUCE THAT ENERGY IS NECESSARY
IS AN UNBALANCED FORCE.

TO SUPPLY A F

0205300004

FROM OBSERVATION, REASON THAT ENERGY OF MOTION (AN
TO CREATE THRUST.

UNBALANCED FO

0205300005

FROM OBSERVATION OF AN EXPERIMENT, RECOGNIZE PROOF WHICH SHOWS THAT TO
(WEIGHT) AN EQUAL AMOUNT OF FORCE IS NEEDED.

0205300006

DESCRIBE SPRING BALANCE AS A FORCE OF GRAVITATION METER

AND READING F

0205300007

DEMONSTRATE FORCE OF GRAVITY EXERTS PULL ON OBJECT.

SUSPEND OBJEC

0205300008

INFER THAT EVERY ACTION HAS AN OPPOSITE AND EQUAL

REACTION.

0205300009

DEMONSTRATE PRINCIPLE THAT EVERY ACTION HAS AN EQUAL AND OPPOSITE REAC

ESTABLISHING A TANK CONTAINING WATER, SAND, PLANTS, AND FISH,
 WATER CHANGES LESS RAPIDLY THAN TEMPERATURE OF AIR BY USING THERMOMETERS TO
 DURING ENVIRONMENTAL TEMPERATURE CHANGES.
 ITS STRUCTURE ADAPTS IT TO ITS ENVIRONMENT.
 LIFE ACTIVITIES AS MOVEMENT, GETTING FOOD, GETTING AIR, AND REPRODUCTION,
 AND BY READING REFERENCES.
 TO MOVE.
 TO DEVELOP A FORCE SUFFICIENT TO OVERCOME GRAVITATIONAL PULL.
 THAT ENERGY IS NECESSARY TO SUPPLY A FORCE THAT STARTS AN OBJECT MOVING. THIS
 ENERGY OF MOTION (AN UNBALANCED FORCE) REACTS AGAINST THE GRAVITATIONAL PULL
 IT, RECOGNIZE PROOF WHICH SHOWS THAT TO ACT AGAINST CERTAIN GRAVITATIONAL FORCE
 CE IS NEEDED.
 FORCE OF GRAVITATION METER AND READING FOR EACH OBJECT AS MEASURE OF PULL.
 FORTS PULL ON OBJECT. SUSPEND OBJECTS FROM SPRING BALANCES. POINTER MOVES.
 OPPOSITE AND EQUAL REACTION.
 ACTION HAS AN EQUAL AND OPPOSITE REACTION.

- 0205300010 DESCRIBE ABOVE ACTION AS EXAMPLE OF NEWTON'S LAW OF ACTION
- 0205300011 USE THE LAW OF ACTION AND REACTION BY RESPONDING TO GIVEN
- 0205300012 GAIN INSIGHT INTO INERTIA OF REST AND INERTIA OF MOTION BY EX
- 0205300013 INFER THAT OBJECTS IN MOTION TEND TO MOVE IN A STRAIGHT LINE
SPACECRAFT INTO ORBIT AROUND THE EARTH.
- 0205300014 KNOW THAT ENERGY MUST BE APPLIED TO PRODUCE AN UNBAL
MOTION.
- 0205300015 MATCH WORDS AND PHRASES WITH THEIR DEFINITION PERTAINING TO MO
- 0205300016 IDENTIFY ACCEPTABLE DEFINITIONS FOR THE TERMS FORCE, INERT
- 0205300017 RECOGNIZE EXAMPLES OF INERTIA SHOWN IN EXPERIMENTS.
- 0205300018 USE THE LAW OF INERTIA IN AN EXPLANATION OF A SITUATION USING
- 0205300019 KNOW THAT ALL OBJECTS ATTRACT ONE ANOTHER BY THE FORCE OF GR
- 0205300020 KNOW THAT AN OBJECT AT REST REMAINS AT REST AND AN UNBALANCED FORCE. OBJEC
- 0205300021 KNOW THAT MOTION IS A FORM OF CHANGE.
- 0205300022 IDENTIFY VARIABLES WHICH AFFECT THE SWING OF A PENDULUM AND T

EXAMPLE OF NEWTON'S LAW OF ACTION AND REACTION.
REACTION BY RESPONDING TO GIVEN QUESTIONS.
OF REST AND INERTIA OF MOTION. BY EXAMINING FAMILIAR OBJECTS.
WHICH TEND TO MOVE IN A STRAIGHT LINE BUT THAT SOME FORCE (GRAVITATIONAL) PULLS A
TOWARD THE EARTH.
APPLIED TO PRODUCE AN UNBALANCED FORCE, RESULTING IN MOTION OR CHANGE OF
MOTION. WITH THEIR DEFINITION PERTAINING TO MOTION OR THE CHANGE IN MOTION.
DEFINITIONS FOR THE TERMS FORCE, INERTIA, AND WEIGHT,
ILLUSTRATED VIA SHOWN IN EXPERIMENTS.
GIVE AN EXPLANATION OF A SITUATION USING BOOKS AND BICYCLES,
HOW THEY AFFECT ONE ANOTHER BY THE FORCE OF GRAVITATION.
WHICH REMAINS AT REST AND AN OBJECT IN MOTION REMAINS IN MOTION UNLESS ACTED ON BY AN
EXTERNAL FORCE OF CHANGE.
PREDICT THE SWING OF A PENDULUM AND TELL HOW THE SWING IS AFFECTED BY THESE VARIABLES.

0205310

GENETICS

0205310001

STUDY AND RESEARCH THE PART THAT CHROMOSOMES PLAY IN CHANGES IN

0205310002

KNOW THAT THE PATTERN OF THE ORGANISM IS PASSED ALONG TO NEW CELLS BY
CONTENT.

0205310003

CONCEPTUALIZE CHROMOSOME RAIRING BY MAKING AND MANIPULATING

0205315

GEOLOGY

0205315001

CONSTRUCT MODEL OF EARTH. FILL BALLOON WITH TOOTHPASTE; FORM MODELIN

0205315002

IDENTIFY PARTS OF MODEL TO REPRESENT LAYERS OF EARTH AS CRUST, MANTL

0205315003

DEMONSTRATE HOW LAYERS OF SEDIMENT FORMED. MIX WATER, PEBBLES, GRA
PARTICLES ACCUMULATE NEAR BOTTOM.

0205315004

DESCRIBE THIS ACTIVITY AS A MODEL OF HOW LAYERS OF SEDIMENT FOR

0205315005

KNOW THAT THE EARTH IS CONTINUALLY CHANGING.

0205315006

LEARN ABOUT EARTH'S INTERIOR BY MAKING A DIAGRAMMATIC MODEL.

0205315007

RELATE THE EARTH'S STRUCTURE TO A THREE DIMENSIONAL MODEL.

0205315008

KNOW THAT HEAT AND PRESSURE GENERATED WITHIN THE EARTH RESULT IN CH

0205315009

KNOW THAT BREAKING UP OF RADIOACTIVE ATOMS WITHIN THE EARTH RELEAS
PRESSURE.

0205315010

KNOW THAT PRESSURES ON AND WITHING THE EARTH UPLIFT THE EARTH'S CRUS

AT CHROMOSOMES PLAY IN CHANGES IN THE STRUCTURE OF LIVING THINGS.
ORGANISM IS PASSED ALONG TO NEW CELLS BY DUPLICATION OF CHROMOSOMES AND THEIR DNA
BY MAKING AND MANIPULATING MODELS.

BALLOON WITH TOOTHPASTE; FORM MODELING CLAY AROUND BALLOON.

PRESENT LAYERS OF EARTH AS CRUST, MANTLE, CORE.

MENT FORMED, MIX WATER, PEBBLES, GRAVEL, SAND AND ALLOW TO SETTLE; HEAVY
M,

DEL OF HOW LAYERS OF SEDIMENT FORM IN OCEANS,

ALLY CHANGING.

Y MAKING A DIAGRAMMATIC MODEL.

A THREE DIMENSIONAL MODEL.

ERATED WITHIN THE EARTH RESULT IN CHANGES OF ITS SURFACE.

ACTIVE ATOMS WITHIN THE EARTH RELEASES ENORMOUS HEAT, CREATING TREMENDOUS

ING THE EARTH UPLIFT THE EARTH'S CRUST.

- 0205315011 RELATE INSIDE AND OUTSIDE PRESSURES TO MOUNTAIN BUILDING.
- 0205315012 RELATE PRESSURES TO THE BENDING OF ROCK LAYERS.
- 0205315013 DISCOVER THAT ROCKS MAY BE GROUPED BY THEIR ORIGIN.
- 0205315014 KNOW THAT THE COMPOSITION OF THE EARTH'S ROCKS IS DETERMINED.
- 0205315015 KNOW THAT ROCKS MAY BE IDENTIFIED BY THEIR MINERAL COMPOSITION.
- 0205315016 MAKE A ROCK COLLECTION NAMING AND CLASSIFYING EACH ROCK.
- 0205315017 DEMONSTRATE THE HARDNESS OF VARIOUS MINERALS BY USING A SCALE FOR.
- 0205315018 CONSTRUCT A SCALE OF RELATIVE HARDNESS FROM SEVERAL MINERALS.
- 0205315019 RELATE OIL DEPOSITS TO SEDIMENTATION IN ANCIENT TIMES.
- 0205315020 DO INDEPENDENT RESEARCH ON HOW THE STORED ENERGY FROM THE SUN IS
PAST IMPORTANT TO THE PRESENT.
- 0205320 HUMAN BODY (BEHAVIOR)
- 0205320001 GIVEN A SIMPLE GRAPH ON WHICH A SERIES OF TEST SCORES HAS BEEN P
BETWEEN TESTS.
- 0205320002 GIVEN LIST OF ORDINARY, EVERYDAY ACTS PERFORMED BY ANIMALS AN
THOSE THAT ARE LEARNED AND THOSE THAT ARE UNLEARNED (REFLEX).
- 0205320003 GIVEN SEVERAL WAYS OF IMPROVING A LEARNED BEHAVIOR, RECOGNIZE
PROGRESS IN GIVEN PERIOD OF TIME, AND CHOOSE REASON WHY YOUR CHOICE

PRESSURES TO MOUNTAIN BUILDING.

BENDING OF ROCK LAYERS.

GROUPED BY THEIR ORIGIN.

OF THE EARTH'S ROCKS IS DETERMINED BY THE MANNER IN WHICH THEY WERE FORMED.

IDENTIFIED BY THEIR MINERAL COMPOSITION.

ING AND CLASSIFYING EACH ROCK.

VARIOUS MINERALS BY USING A SCALE FOR MEASURING HARDNESS.

IVE HARDNESS FROM SEVERAL MINERALS.

IMENTATION IN ANCIENT TIMES.

HOW THE STORED ENERGY FROM THE SUN IS TRANSFORMED INTO COAL AND OIL, MAKING THE ENT.

CH A SERIES OF TEST SCORES HAS BEEN PLOTTED, EXPLAIN THE REASONS THE SCORES CHANGED

ERYDAY ACTS PERFORMED BY ANIMALS AND HUMAN BEINGS, RECOGNIZE DIFFERENCE BETWEEN THOSE THAT ARE UNLEARNED (REFLEX).

VERIC LEARNED BEHAVIOR, RECOGNIZE ONE WHICH WOULD HELP YOU SHOW THE MOST AND CHOOSE REASON WHY YOUR CHOICE IS A GOOD ONE.

- 0205320004 DEMONSTRATE DIFFERENCE (DISCRIMINATE) BETWEEN A STIMULUS AND A RESPONSE
- 0205320005 DEMONSTRATE IN A GIVEN EXPERIMENT INVOLVING STIMULUS AND RESPONSE IN CONTROLLED AND THE ONES THAT ARE CHANGED.
- 0205320006 RECOGNIZE FROM GROUPS OF WORDS OR NUMBERS ONE GROUP WHICH WOULD REASON WHY GROUP YOU SELECTED IS EASIEST TO REMEMBER.
- 0205320007 GIVEN LIST OF THINGS WHICH ARE PRESENT IN A PLACE OF STUDY, EXPLAIN PREVENT LEARNING AND THOSE WHICH WILL PREVENT LEARNING.
- 0205320008 GIVEN AN EXPERIMENT ON PRACTICE AND MEMORIZATION, RECOGNIZE EXPERIMENT.
- 0205320009 GIVEN A LIST OF VARIABLES THAT WERE CONTROLLED IN AN EXPERIMENT REASONS THEY WERE CONTROLLED.
- 0205320010 EXPLAIN WAYS IN WHICH A GIVEN VARIABLE WAS CONTROLLED IN AN EXPERIMENT
- 0205320011 EXPLAIN WAYS IN WHICH A GIVEN VARIABLE WAS CONTROLLED IN AN EXPERIMENT
- 0205320012 EXPLAIN WHICH VARIABLES WERE CONTROLLED IN AN EXPERIMENT ON FORGETTING
- 0205320013 GIVEN DESCRIPTION OF LEARNING SITUATION, RECOGNIZE THOSE VARIABLES LEARN AND THOSE VARIABLES THAT MIGHT BOTHER YOU OR SLOW DOWN YOUR RATE
- 0205320014 GIVEN SEVERAL WAYS OF LEARNING, PREDICT WHICH YOU THINK WOULD LEAD THROUGH EXPERIMENTAL PROCEDURES.
- 0205320015 GIVEN DIFFERENT FORMS OF GRAPHS SHOWING TEST SCORES, EXPLAIN WHY INTERPRET WHAT THE SCORES MEAN.
- 0205320016 GIVEN DIFFERENT FORMS OF GRAPHS SHOWING TEST SCORES, EXPLAIN WHY INTERPRET WHAT THE SCORES MEAN.

CRIMINATE) BETWEEN A STIMULUS AND A RESPONSE IN A GIVEN SITUATION.

MENT INVOLVING STIMULUS AND RESPONSE IN LIVING THINGS, THE VARIABLES THAT ARE
ARE CHANGED.

OR NUMBERS ONE GROUP
IS EASIEST TO REMEMBER.

WHICH WOULD PROBABLY BE MOST EASILY MEMORIZED; EXPLAIN

RE PRESENT IN A PLACE OF
WHICH WILL PREVENT LEARNING.

STUDY, EXPLAIN DIFFERENCE BETWEEN THOSE WHICH WILL NOT

ICE AND MEMORIZATION,

RECOGNIZE THE VARIABLES THAT WERE CONTROLLED IN THE

AT WERE CONTROLLED IN AN

EXPERIMENT ON PRACTICE AND MEMORIZATION, EXPLAIN THE

VARIABLE WAS CONTROLLED

IN AN EXPERIMENT ON PRACTICE AND MEMORIZATION.

VARIABLE WAS CONTROLLED IN AN EXPERIMENT ON PRACTICE AND MEMORIZATION.

CONTROLLED IN AN EXPERIMENT ON FORGETTING AND RELEARNING.

SITUATION, RECOGNIZE
AT MIGHT BOTHER YOU OR SLOW

THOSE VARIABLES THAT MIGHT MAKE IT EASIER FOR YOU TO
DOWN YOUR RATE OF LEARNING.

NG, PREDICT WHICH YOU THINK
RES.

WOULD LEAD TO BEST RESULTS AND TEST YOUR PREDICTION

PHS SHOWING TEST SCORES,
AN.

EXPLAIN WHICH FORMS CAN BE COMPARED MOST EASILY AND

PHS SHOWING TEST SCORES,
AN.

EXPLAIN WHICH FORMS CAN BE COMPARED MOST EASILY AND

0205325

HUMAN BODY (CIRCULATORY)

0205325001

KNOW THAT THE CIRCULATORY SYSTEM WORKS IN CONJUNCTION WITH THE CELLS WITH SUBSTANCES THEY NEED.

0205335

HUMAN BODY (DIET)

0205335001

KNOW THAT CERTAIN DISEASES ARE AVOIDED OR CURED BY ADEQUATE

0205335002

INFER THE IMPORTANCE OF HAVING A BALANCED DIET EVERY DAY.

0205335003

REALIZE THE NEED FOR FOODS RICH IN CERTAIN SUBSTANCES.

0205335004

INFER THE NUTRITIONAL VALUES OF FOOD SUBSTANCES IN MILK.

0205335005

MAKE A POSTER SHOWING VITAMINS AND THEIR SOURCES.

0205340

HUMAN BODY (DIGESTIVE)

0205340001

KNOW THAT DIGESTION BEGINS AS FOOD IS BROKEN INTO SMALLER

0205340002

KNOW THAT OUR DIGESTIVE ORGANS MAKE OUR FOOD READY TO MOVE THROUGH

0205340003

KNOW THAT THE ORGANS OF THE DIGESTIVE SYSTEM WORK TOGETHER

0205340004

DESCRIBE THAT SUBSTANCE IN SALIVA IS RESPONSIBLE FOR CHANGING

0205340005

COMPLETE AN INVESTIGATION USING BENEDICT'S SOLUTION TO SHOW HOW

0205340006

DEMONSTRATE HOW STARCH IS CHANGED TO SUGAR. TEST AND SHOW ABSENCE OF STARCH SOLUTION, SALIVA, PRESENCE IN STARCH AND SALIVA SOLUTION (SET FOR

SYSTEM WORKS IN CONJUNCTION WITH THE DIGESTIVE AND RESPIRATORY SYSTEMS TO PROVIDE
THEY NEED.

ARE AVOIDED OR CURED BY ADEQUATE AMOUNTS OF VITAMINS.

EATING A BALANCED DIET EVERY DAY.

DEFICIENCIES IN CERTAIN SUBSTANCES.

DEFICIENCIES OF FOOD SUBSTANCES IN MILK.

DEFICIENCIES AND THEIR SOURCES.

HOW FOOD IS BROKEN INTO SMALLER PARTICLES.

HOW ENZYMES MAKE OUR FOOD READY TO MOVE THROUGH MEMBRANES.

HOW DIGESTIVE SYSTEM WORK TOGETHER.

HOW SALIVA IS RESPONSIBLE FOR CHANGING STARCH TO SUGAR.

HOW TO USE BIKINING BENEDEICTS SOLUTION TO SHOW HOW SALIVA BREAKS DOWN STARCH.

HOW TO CHANGE STARCH TO SUGAR. TEST AND SHOW ABSENCE OF SUGAR WITH BENEDEICTS SOLUTION IN STARCH.
HOW TO USE BIKINING BENEDEICTS SOLUTION AND SALIVA SOLUTION (SET FOR 10 MINUTES).

0205340007 REPORT WRITTEN OR ORALLY WHAT HAPPENS TO FOOD IN THE MOUTH, STO

0205390 HUMAN BODY (NERVOUS)

0205390001 KNOW THAT THE NERVOUS SYSTEM SERVES TO COORDINATE THE SYSTEMS OF

0205410 HUMAN BODY (RESPIRATORY)

0205410001 THROUGH OBSERVATION, INFER THAT RATES OF BREATHING MAY DIFFER.

0205410002 KNOW THAT THE AMOUNT OF AIR THAT CAN BE INHALED IS DETERMINED

0205410003 READ A CHART TO DETERMINE DIFFERENCES IN INHALED AND EXHALED AI

0205410004 DISTINGUISH RATE OF BREATHING FROM OTHERS. COMPARE RATES.

0205410005 DESCRIBE RATE OF BREATHING. COUNT NUMBER OF TIMES HE INHALES IN

0205410006 CONSTRUCT TABLE OF BREATHING RATES. INDICATE NUMBER OF CHILDREN A

0205410007 DEVISE AN INVESTIGATION TO HELP ANSWER THE FOLLOWING QUESTION:

0205410008 DEVISE AN INVESTIGATION TO HELP ANSWER THE FOLLOWING QUESTION:

0205410009 DEVISE AN INVESTIGATION TO HELP ANSWER THE FOLLOWING QUESTION:
RATE OF BREATHING?

0205410010 KNOW THAT ALTHOUGH THE AMOUNT OF OXYGEN IN FRESH AIR REMAINS AB
LESS.

WHAT HAPPENS TO FOOD IN THE MOUTH, STOMACH, AND INTESTINES.

WHAT SERVES TO COORDINATE THE SYSTEMS OF THE BODY.

WHAT ARE THE RATES OF BREATHING THAT MAY DIFFER.

WHAT FACTORS THAT CAN BE INHALED IS DETERMINED BY THE EXPANSION OF THE LUNGS.

WHAT ARE THE DIFFERENCES IN INHALED AND EXHALED AIR.

HOW DOES THIS DIFFER FROM OTHERS. COMPARE RATES.

HOW DO YOU COUNT NUMBER OF TIMES HE INHALES IN ONE MINUTE.

WHAT ARE THE DIFFERENT RATES. INDICATE NUMBER OF CHILDREN AND DIFFERENT RATES.

HELP ANSWER THE FOLLOWING QUESTION: DOES EVERYONE INHALE AT THE SAME RATE?

HELP ANSWER THE FOLLOWING QUESTION: DOES EXERCISE AFFECT BREATHING RATE?

HELP ANSWER THE FOLLOWING QUESTION: CAN YOU DETERMINE AN AVERAGE OR NORM IN THE

HOW MUCH OXYGEN IN FRESH AIR REMAINS ABOUT THE SAME, THE AMOUNT IN EXHALED AIR IS

0205410011

KNOW THAT THE ORGANS OF THE RESPIRATORY SYSTEM ARE SO STRUCTURED TO PROVIDE A CONTINUOUS SUPPLY OF OXYGEN.

0205415

HUMAN BODY (SKELETAL)

0205415001

KNOW THAT THE SKELETAL AND MUSCULAR SYSTEMS PROVIDE THE BODY SUPPORT AND PROTECTION.

0205425

HUMAN BODY (SYSTEMS)

0205425001

VISUALIZE THE BODY AS MORE THAN A MASS OF CELLS--RATHER AS AN ORGANIZED SYSTEM OF INTERDEPENDENT PARTS.

0205425002

KNOW THAT THE ORGAN SYSTEMS WORK TOGETHER IN PERFORMING THE BODY'S FUNCTIONS.

0205425003

KNOW THAT THE EXCRETORY SYSTEM ENABLES THE OTHER SYSTEMS TO MAINTAIN THE BODY'S INTERNAL ENVIRONMENT BY REMOVING WASTE PRODUCTS OF CELL OXIDATION.

0205430

HUMAN BODY (TEMPERATURE)

0205430001

CONSTRUCT A TABLE OF TEMPERATURE READINGS COLLECTED, OUTDOORS AND INDOORS, AND INDICATE THE EFFECTS OF TEMPERATURE CHANGES ON THE BODY.

0205430002

DEMONSTRATE BODY'S ADAPTATION FOR STEADY TEMPERATURE BY MEASURING BODY TEMPERATURE OVER A WEEK SHOWING THAT BODY TEMPERATURE VARIES LITTLE.

0205430003

OBSERVE, INVESTIGATE, AND ANALYZE THE IMPORTANCE OF AN EVEN BODY TEMPERATURE FOR THE BODY'S FUNCTIONS.

0205450

INTERDEPENDENCE

0205450001

KNOW THAT ANIMALS ARE DEPENDENT ON THE OXYGEN GREEN PLANTS PROVIDE.

RESPIRATORY SYSTEM ARE SO STRUCTURED THAT THEY PROVIDE THE BODY CELLS WITH A

MUSCULAR SYSTEMS PROVIDE THE BODY SUPPORT AND PROTECTION AND ENABLE IT TO MOVE ABOUT.

NOT AS A MASS OF CELLS--RATHER AS AN ORGANIZED STRUCTURE.

THEY WORK TOGETHER IN PERFORMING THE BODY'S FUNCTIONS.

THE SKIN ENABLES THE OTHER SYSTEMS TO MAINTAIN A BALANCE BY REMOVING UNDESIRABLE WASTES OF

TEMPERATURE READINGS COLLECTED, INDICATING DAY OF READING AND AIR AND BODY TEMPERATURES,

THE SKIN MAINTAINS A STEADY TEMPERATURE BY MEASURING BODY AND AIR TEMPERATURES, IN- AND OUTDOOR FOR
TEMPERATURE VARIES LITTLE COMPARED TO AIR TEMPERATURE.

ANALYZE THE IMPORTANCE OF AN EVEN BODY TEMPERATURE.

- 0205450002 GAIN INSIGHT INTO THE INTERDEPENDENCE OF ORGANISMS AND THEIR ENV
- 0205450003 KNOW THAT LIVING THINGS OBTAIN FROM ONE ANOTHER AND FROM THE ENVIR
GROWTH AND ACTIVITY.
- 0205450004 REALIZE THAT ANIMALS AND PLANTS IN A SEALED ENVIRONMENT DEPEND UP
CYCLE IS ESSENTIAL IN THEIR ENVIRONMENT.
- 0205450005 CONSTRUCT A SEALED-IN MODEL USING FISH AND PLANT LIFE TO SHOW T
ABLE TO RELATE THIS MODEL TO THE SEALED-IN ENVIRONMENT OF THE EA
- 0205450006 KNOW THAT INTERDEPENDENCE OF LIVING THINGS WITH THEIR ENVIRONME
IN A CHEMICAL CHANGE.
- 0205450007 KNOW THAT WAYS OF LIFE TODAY ARE RELATED TO THE INTERDEPE
ENVIRONMENT.
- 0205450008 REASON FROM PRIOR WORK THAT ANIMAL FIBERS ARE DEPENDENT ON EARLIE
-
- 0205455 LIGHT
- 0205455001 DISCOVER HOW MIRRORS COLLECT LIGHT.
- 0205455002 KNOW THAT A TELESCOPE MIRROR SERVES TO COLLECT LIGHT.
- 0205455003 KNOW THAT LIGHT COLLECTED BY A CURVED MIRROR CAN BE BROUGHT T
- 0205455004 KNOW THAT LENSES AND PRISMS CAN CHANGE THE DIRECTION OF LIGHT.
- 0205455005 DEMONSTRATE THAT LIGHT WILL BOUNCE AT AN ANGLE OR STRAIGHT
DIFFERENT ANGLES ONTO A MIRROR.
- 0205455006 MAKE A WORKABLE MODEL OF A PERISCOPE.

DEPENDENCE OF ORGANISMS AND THEIR ENVIRONMENTS.

FROM ONE ANOTHER AND FROM THE ENVIRONMENT THE MATTER AND ENERGY THEY NEED FOR

IN A SEALED ENVIRONMENT DEPEND UPON ONE ANOTHER; THE OXYGEN-CARBON-DIOXIDE ENVIRONMENT.

SHOWING FISH AND PLANT LIFE TO SHOW THE INTERDEPENDENCE OF ALL LIVING THINGS, BEING IN THE SEALED-IN ENVIRONMENT OF THE EARTH.

LIVING THINGS WITH THEIR ENVIRONMENT IS RELATED TO THE TRANSFORMATION OF MATTER

ARE RELATED TO THE INTERDEPENDENCE OF ORGANISMS THAT LIVED IN AN ANCIENT

ANIMAL FIBERS ARE DEPENDENT ON EARLIER CAPTURE OF ENERGY BY GREEN PLANTS.

LIGHT.

SERVES TO COLLECT LIGHT.

A CURVED MIRROR CAN BE BROUGHT TO A FOCUS AND MAGNIFIED BY A LENS.

CAN CHANGE THE DIRECTION OF LIGHT.

REFLECTS AT AN ANGLE OR STRAIGHT BACK TO THE SOURCE, BY SHINING A FLASHLIGHT AT

- 0205455007 KNOW THAT LIGHT TRAVELS IN STRAIGHT LINES. IT CAN BE BROKEN IN
PRISM.
- 0205455008 DO AN INVESTIGATION WITH A PRISM TO SHOW THAT WHITE LIGHT IS
THAT THE SPECTRUM HAS A SET PATTERN.
- 0205455009 NAME THE COLOR OF THE BANDS AS RED, ORANGE, YELLOW, GREEN, BLUE,
AND VIOLET.
- 0205455010 DEMONSTRATE THAT BANDS OF COLORED LIGHT ARE FORMED AS SUNLIGHT
IS REFRACTED BY A PRISM.
- 0205455011 KNOW THAT LIGHT CAN BE REFLECTED BY MIRRORS.
- 0205455012 DISCOVER THAT LIGHT MOVES IN A STRAIGHT LINE.
- 0205455013 DEMONSTRATE USING A LONG TUBE THAT LIGHT TRAVELS IN A STRAIGHT
LINE.
- 0205455014 KNOW THAT PARTS OF THE LIGHT SPECTRUM ARE INVISIBLE; THEIR EXISTENCE
IS PROVEN BY THE EFFECTS THEY PRODUCE.
- 0205455015 UNDERSTAND THE SHORTNESS OF WAVELENGTHS OF LIGHT.
- 0205455016 WRITE OR DISCUSS THIS TOPIC, 'THE WAVE THEORY OF LIGHT,' THIS SHOULD
INCLUDE WAVE LENGTHS.
- 0205455017 KNOW THAT THE BEHAVIOR OF LIGHT MAY BE EXPLAINED AS THE MOTION OF
WAVES.
- 0205455018 INFER THAT THE NUMBER OF WAVES IS RELATED TO THE LENGTH OF THE WAVE
LENGTH.
- 0205455019 KNOW THAT LIGHT BEHAVES AT TIMES AS PARTICLES, AND AT TIMES AS
WAVES.
- 0205455020 EXAMINE AN EXAMPLE OF LIGHT BEHAVING AS PARTICLES RATHER THAN AS
WAVES.

STRAIGHT LINES. IT CAN BE BROKEN INTO A SPECTRUM OF COLORS AS IT PASSES THROUGH A PRISM TO SHOW THAT WHITE LIGHT IS MADE OF MANY DIFFERENT COLORS OF LIGHT, AND THAT THE TOTAL PATTERN SPECTRUM. COLORS AS RED, ORANGE, YELLOW, GREEN, BLUE, AND VIOLET, AND THE TOTAL PATTERN SPECTRUM. COLORED LIGHT ARE FORMED AS SUNLIGHT PASSES THROUGH A GLASS PRISM.

REFLECTED BY MIRRORS.

TRAVEL IN A STRAIGHT LINE.

EXPERIMENT TUBE THAT LIGHT TRAVELS IN A STRAIGHT LINE.

COLORS OF THE SPECTRUM ARE INVISIBLE; THEIR EXISTENCE CAN BE INFERRED FROM THEIR EFFECTS.

DIFFERENT WAVELENGTHS OF LIGHT,

FOR EXAMPLE, 'THE WAVE THEORY OF LIGHT,' THIS SHOULD INCLUDE THE KNOWLEDGE OF COLORS RELATED TO

THE MOTION OF LIGHT MAY BE EXPLAINED AS THE MOTION OF WAVES THROUGH SPACE.

THE WAVELENGTH OF WAVES IS RELATED TO THE LENGTH OF THE WAVE.

SOMETIMES AS PARTICLES, AND AT OTHER TIMES AS WAVES.

SOMETIMES BEHAVING AS PARTICLES RATHER THAN AS WAVES (ELECTRICAL ENERGY).

- 0205455021 WRITE OR DISCUSS THIS TOPIC, 'THE PARTICLE THEORY OF LIGHT.'
- 0205455022 RELATE WAVELENGTH TO THE COLOR SPECTRUM.
- 0205455023 COMPARE THE TWO THEORIES OF LIGHT AND BECOME AWARE THAT MORE EVIDENCE
- 0205455024 GIVEN TWO PIECES OF EVIDENCE, A AND B, DECIDE WHICH THEORY OF
- 0205455025 KNOW THAT THE LIGHT FROM THE STARS ENABLES US TO DETERMINE
- 0205455026 DEDUCE THAT DIFFERENT ELEMENTS PRODUCE DIFFERENT FLAME COLORS.
- 0205455027 INFER THAT LIGHT FROM THE STARS WAS EMITTED AT SOME TIME IN THE PAST
- 0205455028 KNOW THAT DISTANCES IN SPACE CAN BE MEASURED ACCURATELY BY USING TELESCOPES
- 0205455029 DESCRIBE THAT LIGHT WAVES OR RADIO WAVES CAN BE USED TO MEASURE DISTANCES BY USING RADAR
- 0205455030 FIGURE WHAT A LIGHT YEAR IS USING MATH CONCEPTS.
- 0205455031 RECOGNIZE IN MULTIPLE CHOICE SITUATION THE SPEED OF LIGHT.
- 0205455032 OBSERVE OR PERFORM AN INVESTIGATION OF A FLAME SHOWING COLORS PRODUCED
- 0205455033 DEMONSTRATE FLAME TEST FOR IDENTIFYING CHEMICAL SUBSTANCES BY OBSERVING AN OPEN FLAME CAUSING DIFFERENT COLORS TO BE FORMED AS THEY BURN.

THE PARTICLE THEORY OF LIGHT.

COLOR SPECTRUM.

LIGHT AND BECOME AWARE THAT MORE EVIDENCE IS NEEDED.

SE, A AND B, DECIDE WHICH THEORY OF LIGHT BEST EXPLAINS EACH.

THE STARS ENABLES US TO DETERMINE THEIR COMPOSITION AND THEIR TEMPERATURE.

MENTS PRODUCE DIFFERENT FLAME COLORS.

STARS WAS EMITTED AT SOME TIME IN THE PAST.

WE CAN BE MEASURED ACCURATELY BY USING THE SPEED OF LIGHT AS A YARDSTICK.

RADIO WAVES CAN BE USED TO MEASURE DISTANCES IN SPACE, BY MEASURING THE TIME IT TAKES TO REACH A DISTANT OBJECT.

USING MATH CONCEPTS.

IN THIS SITUATION THE SPEED OF LIGHT.

STUDY OF A FLAME SHOWING COLORS PRODUCED WHEN DIFFERENT SUBSTANCES ARE PRESENT.

IDENTIFYING CHEMICAL SUBSTANCES BY HOLDING DIFFERENT CHEMICAL POWDERS IN AN FLAME AND NOTICING WHAT COLORS TO BE FORMED AS THEY BURN.

0205465 MACHINES (COMPLEX)

0205465001 COMPARE POWER MACHINES WITH MANUAL MACHINES TO SHOW ADVANTAGE

0205470 MACHINE (SIMPLE)

0205470001 COMBINING SEVERAL OF THE SIX SIMPLE MACHINES (INCLINED PLANE, SC DESIGN AND BUILD A WORKING MODEL.

0205475 MAMMALS

0205475001 KNOW THAT THE MAMMALS HAVE BEEN MORE SUCCESSFUL IN THEIR ADAPTATIO

0205475002 KNOW THAT MAMMALS ARE ADAPTED FOR THE PROTECTION AND CARE OF T

0205475003 UNDERSTAND THE IMPORTANT RELATIONSHIP BETWEEN CHANGES IN STRUCTURE CHANGES IN CHROMOSOMES.

0205480 MAGNETS

0205480001 GIVEN GROUP OF OBJECTS AND A MAGNET, PREDICT WHICH OF THE OBJEC TEST YOUR PREDICTIONS IN EXPERIMENTAL PROCEDURES.

0205480002 GIVEN A MAGNET AND GROUP OF MATERIALS (E.G., PAPER, CARDBOARD MATERIALS ARE MAGNETICALLY TRANSPARENT.

0205480003 GIVEN TWO MARKED BAR MAGNETS, RECOGNIZE THE POLES WHICH ATTRACT E

0205480004 GIVEN A MAGNET, DEMONSTRATE THE PATTERN OF ITS LINES OF FORCE.

TH MANUAL MACHINES TO SHOW ADVANTAGES OR DISADVANTAGES OF EACH.

SIX SIMPLE MACHINES (INCLINED PLANE, SCREW, WEDGE, LEVER, PULLEY, WHEEL, AND AXLE).
G MODEL.

VE BEEN MORE SUCCESSFUL IN THEIR ADAPTATIONS THAN HAVE OTHER FORMS OF LIVING THINGS,

PTED FOR THE PROTECTION AND CARE OF THEIR YOUNG.

RELATIONSHIP BETWEEN CHANGES IN STRUCTURE AND FUNCTION OF THE BODY (ADAPTATION) AND

ND A MAGNET, PREDICT WHICH OF THE OBJECTS ARE MAGNETIC AND WHICH ARE NONMAGNETIC.
EXPERIMENTAL PROCEDURES.

OF MATERIALS (E.G., PAPER, CARDBOARD, PLASTIC GLASS, TIN), DEMONSTRATE WHICH
Y TRANSPARENT.

NETS, RECOGNIZE THE POLES WHICH ATTRACT EACH OTHER AND THE POLES WHICH REPEL EACH OTHER.

ATE THE PATTERN OF ITS LINES OF FORCE.

0205485

MEALWORMS

0205485001

RECOGNIZE BODY PARTS OF A MEALWORM (ANTENNA, HEAD, MOUTH, LEG, FUNCTIONS.

0205495

MICROORGANISMS

0205495001

PLAN FOR COLLECTING, CULTURING, AND STUDYING PROTOZOANS.

0205495002

KNOW THAT PROTOZOANS MOVE AND GATHER FOOD IN DIFFERENT WAYS.

0205495003

DESCRIBE MOVEMENT AND FEEDING OF LIFE IN DROP OF POND WATER. USE

0205495004

DISTINGUISH BETWEEN LIFE FOUND IN DROP OF WATER AND IN WATER FROM SU

0205500

MICROSCOPE TECHNIQUE

0205500001

USE A COMPOUND MICROSCOPE BY SETTING UP AND FOCUSING IT FOR VIEWING A

0205500002

GIVEN A MICROSCOPE, A SLIDE, AND A SIMPLE SKETCH, LABEL SKETCH ACCORD
RECORD THE MAGNIFICATION USED.

0205500003

GIVEN LIST OF DIRECTIONS, PREPARE A SLIDE FOR VIEWING FROM THE FOLL
SLIP, A SPECIMEN (SUCH AS POND WATER).

0205500004

DEMONSTRATE HOW TO PLACE A COVER SLIP ON DROP OF WATER (POND) ON MIC

0205500005

DEMONSTRATE USE OF MICROSCOPE. PLACE IN FOCUS SLIDE PREPARED EARL

0205545

PLANTS (GROWTH)

MEALWORM (ANTENNA, HEAD, MOUTH, LEG, THORAX, ABDOMEN) AND DESCRIBE THEIR

DURING, AND STUDYING PROTOZOANS

AND GATHER FOOD IN DIFFERENT WAYS.

DURING OF LIFE IN DROP OF POND WATER. USE MICROSCOPE.

FOUND IN DROP OF WATER AND IN WATER FROM SURFACE OF POND MUD. USE MICROSCOPE.

BY SETTING UP AND FOCUSING IT FOR VIEWING AT A GIVEN POWER.

DE, AND A SIMPLE SKETCH, LABEL, SKETCH ACCORDING TO WHAT YOU OBSERVE ON THE SPECIMEN, USED.

PREPARE A SLIDE FOR VIEWING FROM THE FOLLOWING MATERIALS: A GLASS SLIDE, A COVER POND WATER).

A COVER SLIP ON DROP OF WATER (POND) ON MICROSCOPE SLIDE. DO NOT TRAP AIR BUBBLES.

SCOPE. PLACE IN FOCUS SLIDE PREPARED EARLIER.

- 0205545001 KNOW THAT DURING PHOTOSYNTHESIS (THE MANUFACTURE OF CARBOH
- 0205545002 CONSTRUCT AN HYPOTHESIS CONCERNING THE REACTIONS IN A PLANT
- 0205545003 OPERATIONALLY DEFINE PHOTOSYNTHESIS AND CHLOROPHYLL.
- 0205545004 KNOW THAT DURING PHOTOSYNTHESIS, GREEN PLANTS MANUFA
OF LIGHT.
- 0205545005 PERFORM AN INVESTIGATION SHOWING THE PRODUCTION OF OXYGEN
FOR THIS PROCESS.
- 0205545006 DISCOVER THAT MANY OF OUR FOODS COME FROM PLANTS. CELLS SPECIAL
- 0205545007 KNOW THAT GREEN PLANTS MAKE CARBOHYDRATES FROM CARBON DIOXIDE
PLANTS FOR THEIR FOOD.
- 0205545008 KNOW THAT PLANTS MAKE AND STORE FATS.
- 0205545009 KNOW THAT PLANTS MAKE AND STORE PROTEINS.
- 0205545010 KNOW THAT GREEN PLANTS ARE A BASIC SOURCE FOR MANY SUBSTAN
- 0205545011 LIST THE FOOD SUBSTANCE AND GASES PRODUCED DURING PHOTOSY
- 0205545012 KNOW THAT PLANTS ARE A SOURCE OF FOOD SUBSTANCES THAT KEEP US

0205550 PLANTS (HYBRIDS)

0205550001 GIVEN DUPLICATES OF SEEDS, PLANTS, OR FRUITS, TRY TO IMPROVE

PHOTOSYNTHESIS (THE MANUFACTURE OF CARBOHYDRATES), GREEN PLANTS PRODUCE OXYGEN,
CONCERNING THE REACTIONS IN A PLANT THAT MIGHT PRODUCE CARBOHYDRATES.
PHOTOSYNTHESIS AND CHLOROPHYLL.
PHOTOSYNTHESIS, GREEN PLANTS MANUFACTURE SIMPLE SUGARS AND STARCHES, USING THE ENERGY
SHOWING THE PRODUCTION OF OXYGEN DURING PHOTOSYNTHESIS AND THE NECESSITY OF LIGHT
FOODS COME FROM PLANTS CELLS SPECIALIZED FOR STORAGE OF CARBOHYDRATES.
THE CARBOHYDRATES FROM CARBON DIOXIDE AND WATER. ANIMALS ARE DEPENDENT ON GREEN
STORE FATS.
STORE PROTEINS.
A BASIC SOURCE FOR MANY SUBSTANCES NEEDED BY ALL ANIMAL LIFE.
GASES PRODUCED DURING PHOTOSYNTHESIS.
SOURCE OF FOOD SUBSTANCES THAT KEEP US WELL.

0205560 PLANTS (NEEDS)

0205560001 KNOW THAT GREEN PLANTS CAN DIRECTLY TRAP AND STORE THE ENERGY OF

0205560002 KNOW THAT LIGHT IS ESSENTIAL FOR THE MANUFACTURE OF CARBOHYDRATE

0205560003 KNOW THAT THE CAPTURE OF RADIANT ENERGY BY GREEN PLANTS IS BASIC THINGS.

0205560004 DESCRIBE THAT PRESENCE OF LIGHT NECESSARY FOR PHOTOSYNTHESIS

0205560005 INFER THE SOURCES OF THE CARBON, OXYGEN, AND HYDROGEN IN A GREEN PLANT

0205560006 DEMONSTRATE STARCH ABSENT IN LEAF 1/2 COVERED FOR 3 DAYS, PREPARED WITH HEATED ALCOHOL AND TEST WITH IODINE SOLUTION.

0205570 PLANTS (PARTS)

0205570001 CONSTRUCT 'RUBBING' OF LEAF. PLACE LEAF, FACE DOWN UNDER PAPER

0205570002 DESCRIBE THAT LEAF SKELETON IS MADE OF CELLULOSE AND GIVES LEAF

0205610 REPRODUCTION

0205610001 KNOW THAT ORGANISMS REPRODUCE OTHER ORGANISMS LIKE THEMSELVES

0205615 REPTILES (EXTINCT)

0205615001 RESEARCH HOW CHANGES OF ENVIRONMENT AFFECTED DINOSAURS.

LY TRAP AND STORE THE ENERGY OF SUNLIGHT.

THE MANUFACTURE OF CARBOHYDRATES BY CELLS IN A GREEN LEAF.

ENERGY BY GREEN PLANTS IS BASIC TO THE GROWTH AND MAINTENANCE OF ALL LIVING

NECESSARY FOR PHOTOSYNTHESIS TO FORM STARCH IN GREEN PLANTS.

OXYGEN, AND HYDROGEN A GREEN PLANTS USES IN PHOTOSYNTHESIS.

1/2 COVERED FOR 9 DAYS, PRESENT IN UNCOVERED HALF, REMOVE CHLOROPHYLL
IODINE SOLUTION.

CE LEAF, FACE DOWN UNDER PAPER, RUB CRAYON OVER OUTLINE OF LEAF.

DE OF CELLULOSE AND GIVES LEAF STRENGTH AND STIFFNESS.

ER ORGANISMS LIKE THEMSELVES.

NT AFFECTED DINOSAURS.

0205615002 KNOW THAT FURTHER ADAPTATIONS LED TO DOMINANCE BY THE DINOSAURS;
DISAPPEARANCE.

0205620 SCIENTIFIC METHOD

0205620001 APPRECIATE THE PROBLEMS THAT INTEREST A SCIENTIST AND SOME OF THE

0205620002 ASSOCIATE SCIENCE WITH EVIDENCE AND REASONING.

0205620003 DESIGN EXPERIMENT SHOWING RELATIONSHIP BETWEEN TIME IT TAKES FOR S
TEMPERATURE. USE THESE STEPS: 1, HYPOTHESIS, 2, DESIGN, 3.

0205620004 EXAMINE INFERENCES ON WHICH A THEORY IS BUILT AND REALIZE THA

0205620005 IN RESPONSE TO A REQUEST TO DO SO, DESCRIBE DESIGNS THAT WOULD BE AP
MODEL CAN BE USED TO EXPLAIN A GIVEN PHENOMENON.

0205620006 CONSTRUCT A DIAGRAM WITH LABELS TO DEMONSTRATE THAT MORE THAN 0
GIVEN MODEL.

0205630 SOLAR SYSTEM

0205630001 CONSTRUCT MODEL OF SUN-EARTH-MOON SYSTEM.

0205630002 GIVEN THE PROPERTIES OF THE PLANETS OF OUR SOLAR SYSTEM, ORDER AT LE
OR NUMBER OF MOONS.

0205630003 GIVEN THE PROPERTIES OF THE PLANETS, COMPARE THE KNOWN PHYSICAL FE

0205630004 CONSTRUCT DIAGRAM OF ELLIPTICAL SHAPE OF EARTH'S ORBIT. USE PAPER,
ACCORDING TO ARRANGEMENT IN TEXT.

0205630005 DEMONSTRATE MOVING THUMB TACKS FARTHER APART CAUSES MORE ELONGATED E
CIRCLE.

CONDITIONS LED TO DOMINANCE BY THE DINOSAURS; FAILURE TO ADAPT TO CHANGES LED TO THEIR

WHAT INTEREST A SCIENTIST AND SOME OF THE METHODS HE USES IN TRYING TO SOLVE THEM.

EVIDENCE AND REASONING.

THE RELATIONSHIP BETWEEN TIME IT TAKES FOR SUBSTANCE TO DISSOLVE IN WATER AND
STEPS: 1. HYPOTHESIS, 2. DESIGN, 3. RECORD OF OBSERVATIONS, 4. CONCLUSIONS.

HOW A THEORY IS BUILT AND REALIZE THAT EVERY THEORY MUST BE TESTED BY EVIDENCE.

HOW TO DO SO, DESCRIBE DESIGNS THAT WOULD BE APPROPRIATE TO ILLUSTRATE THAT MORE THAN ONE
CAN EXPLAIN A GIVEN PHENOMENON.

USE LABELS TO DEMONSTRATE THAT MORE THAN ONE MODEL CAN SOMETIMES BE USED TO EXPLAIN A

EARTH-MOON SYSTEM.

THE PLANETS OF OUR SOLAR SYSTEM, ORDER AT LEAST THREE PLANETS ACCORDING TO COLOR, SIZE,

THE PLANETS, COMPARE THE KNOWN PHYSICAL FEATURES OF TWO PLANETS.

THE OPTICAL SHAPE OF EARTH'S ORBIT. USE PAPER, PENCIL, RULER, 2 THUMB TACKS, STRING
IN TEXT.

MOVING THEM FARTHER APART CAUSES MORE ELONGATED ELLIPSE; MOVE TOGETHER MAKES ORBIT MORE LIKE

- 0205630006 CONSTRUCT HYPOTHESIS OF WHAT ELLIPSE WILL LOOK LIKE IF THUMB TAC
- 0205630007 DESCRIBE THAT TIME IS LEAST FOR EARTH TO ROTATE, MORE FOR MOON
REVOLVE AROUND SUN.
- 0205630008 KNOW THAT BODIES IN SPACE, AS WELL AS THEIR MATTER AND ENERGY, A
- 0205630009 KNOW THAT THE EARTH IS IN CONSTANT MOTION.
- 0205630010 KNOW THAT BODIES IN SPACE, AS WELL AS THEIR MATTER AND ENERGY, A
- 0205630011 KNOW THAT TO ALTER THE PATH OF A BODY IN SPACE, ENERGY MUST BE A
GRAVITATIONAL PULL AND INERTIAL MOTION.
- 0205630012 KNOW THAT INERTIA AND GRAVITATION AFFECT THE PATH OF BODIES TR
- 0205630013 KNOW THAT THE MASSES OF THE SUN AND THE PLANETS DIFFER; HENCE, TH
- 0205630014 INTER THE NEWTON'S LAWS OF GRAVITATION AND MOTION HELP EXPLAIN T
- 0205630015 SENSE HOW SCIENTISTS AND ENGINEERS CAN PREDICT ORBITS.
- 0205630016 KNOW THAT THE POSITION AND MOTION OF THE MOON ARE AFFECTED
- 0205630017 KNOW THAT EXPLORATION OF THE MOON DEPENDS UPON UNDERSTAN
SPACE ARE AFFECTED BY GRAVITATION AND INERTIAL MOTION.
- 0205630018 KNOW THAT ROTATION AND REVOLUTION DIFFER FOR DIFFERENT BODIES IN
- 0205630019 SENSE SOME RELATIONSHIPS BETWEEN DISTANCES AND TIME IN SPACE TRA

ECLIPSE WILL LOOK LIKE IF THUMB TACKS ARE MOVED CLOSER OR FARTHER,
 EARTH TO ROTATE, MORE FOR MOON TO REVOLVE AROUND EARTH, GREATEST FOR EARTH TO
 WELL AS THEIR MATTER AND ENERGY, ARE IN CONSTANT CHANGE.
 ANANT MOTION.
 WELL AS THEIR MATTER AND ENERGY, ARE IN CONSTANT CHANGE.
 A BODY IN SPACE, ENERGY MUST BE APPLIED TO AFFECT THE RELATIONSHIP BETWEEN
 MOTION.
 ON AFFECT THE PATH OF BODIES TRAVELING IN SPACE.
 AND THE PLANETS DIFFER; HENCE, THEIR GRAVITATIONAL PULLS DIFFER.
 GRAVITATION AND MOTION HELP EXPLAIN THE ORIGIN OF THE SOLAR SYSTEM.
 SCIENTISTS CAN PREDICT ORBITS.
 MOTION OF THE MOON ARE AFFECTED BY GRAVITATION AND INERTIAL MOTION,
 MOTION DEPENDS UPON UNDERSTANDING HOW THE POSITION AND MOTION OF BODIES IN
 MOTION AND INERTIAL MOTION.
 MOTION DIFFER FOR DIFFERENT BODIES IN SPACE.
 MOTION DISTANCES AND TIME IN SPACE TRAVEL.

0205630020 DISCOVER THAT ENORMOUS DISTANCES IN SPACE REQUIRE A NEW UNIT OF

0205630021 REASON OUT A METHOD FOR MEASURING THE DISTANCE TO OBJECTS

0205630022 RELATE THEIR KNOWLEDGE OF THE LAWS OF MOTION TO A MOON LAUNCH

0205630023 KNOW THAT THE FLIGHT OF A SPACECRAFT TO THE MOON IS AFFECTED

0205630024 FIGURE HIS WEIGHT IF ONE COULD GET COMPLETELY AWAY FROM GRAVITY

0205630025 GIVE CORRECT ANSWERS ABOUT ONE'S MASS ON THE MOON.

0205630026 GIVE AN EXAMPLE OF HOW ONE WOULD FIGURE ONE'S WEIGHT ON THE MOON

0205635 SOLAR SYSTEM (STARS)

0205635001 BECOME AWARE OF THE ENORMOUS TEMPERATURES OF STARS.

0205635002 KNOW THAT THE STARS ARE CONTINUALLY CHANGING.

0205635003 EXPLAIN WHAT A SPECTROSCOPE TELLS US ABOUT THE TEMPERATURES

0205635004 DEMONSTRATE OR TELL HOW WE KNOW THAT THE STARS MOVE.

0205635005 DEMONSTRATE THAT A TELESCOPE MUST MOVE TO STAY POINTED AT THE
AT NORTH STAR WITH SHUTTER OPEN THREE HOURS CAUSING CURVED

ANCES IN SPACE REQUIRE A NEW UNIT OF MEASUREMENT.

URING THE DISTANCE TO OBJECTS IN SPACE.

E LAWS OF MOTION TO A MOON LAUNCH AND LANDING.

ACECRAFT TO THE MOON IS AFFECTED BY GRAVITATION.

D GET COMPLETELY AWAY FROM GRAVITATION.

NE'S MASS ON THE MOON.

OULD FIGURE ONE'S WEIGHT ON THE MOON.

TEMPERATURES OF STARS.

INUALLY CHANGING.

TELLS US ABOUT THE TEMPERATURE AND SUBSTANCES IN A STAR.

NOW THAT THE STARS MOVE.

MUST MOVE TO STAY POINTED AT THE SAME STAR BY USING CAMERA REMAINING MOTIONLESS
OPEN THREE HOURS CAUSING CURVED TRACKS OF LIGHT ON FILM.

- 0205655 UNIVERSE
- 0205655001 KNOW THAT THE UNIVERSE IS IN CONSTANT CHANGE.
- 0205655002 KNOW THAT COMPONENT BODIES OF THE UNIVERSE ARE IN CONS
- 0205655003 GIVEN APPROPRIATE REFERENCE MATERIALS, MAKE AN OUTLINE OF T
- 0205655004 REPORT IN ORAL OR WRITTEN FORM ON THIS TOPIC, 'A RULER FOR DEMONSTRATIONS OR DRAWINGS.
- 0205665 WEATHER
- 0205665001 WHEN PRESENTED WITH A LIST OF TERMS CONCERNING WEATHER, CORR TERMS RELATING TO WEATHER AND WEATHER CONDITIONS.
- 0205685 WEATHER (PREDICTION)
- 0205685001 CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN A WIND AT A GIVEN TIME.
- 0205685002 CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM A TIDE GIVEN TIME.
- 0205685003 CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN A
- 0205685004 FROM OBSERVATIONS AND WEATHER KNOWLEDGE, INTERPRET INFO

CONSTANT CHANGE.

OF THE UNIVERSE ARE IN CONSTANT MOTION.

MATERIALS, MAKE AN OUTLINE OF THE MANY COMPONENT PARTS OF THE UNIVERSE.

FORM ON THIS TOPIC, 'A RULER FOR THE UNIVERSE,' AND SUPPORT THE REPORT WITH

OF TERMS CONCERNING WEATHER, CORRECTLY DEFINE IN WRITING TEN OUT OF FIFTEEN OF THESE AND WEATHER CONDITIONS.

BASED ON THE DATA TAKEN FROM AN AEROVANE TO SHOW THE VELOCITY AND DIRECTIONS OF THE

BASED ON THE DATA TAKEN FROM A TIDE GAUGE TO SHOW THE RISE AND FALL OF THE TIDES AT A

BASED ON THE DATA TAKEN FROM AN ANEMOMETER.

PER KNOWLEDGE, INTERPRET INFORMATION SHOWN IN A TABLE OR A GRAPH.

- 0206010 ADAPTATION (BEHAVIOR)
- 0206010001 KNOW THAT A LIVING THING IS THE PRODUCT OF ITS HEREDITY AND
- 0206010002 KNOW THAT BEHAVIOR MAY BE INBORN AND INVOLUNTARY.
- 0206010003 KNOW THAT RESPONSES TO STIMULI MAY BE SIMPLE OR COMPLEX.
- 0206010004 KNOW THAT BEHAVIOR CONSISTS OF RESPONSES TO CHANGES (S)
- 0206010005 KNOW THAT A RESPONSE MAY BE CHANGED BY SUBSTITUTING A NEW
- 0206010006 KNOW THAT HABITS AND LEARNING RESULT FROM INTERACTION OF
- 0206010007 THE CHILD WILL DEMONSTRATE A CONDITIONED REFLEX BY CON
LIGHT, WHEN FED) UNTIL THE FISH RESPONDS WITHOUT FOOD.
- 0206015 ADAPTATION (DEFENSE)
- 0206015001 KNOW THAT ORGANISMS ARE STRUCTURALLY ADAPTED FOR DEFENSE AGA
- 0206025 ADAPTATION (HABITAT)
- 0206025001 KNOW THAT LIVING THINGS ARE ADAPTED BY STRUCTURE AND FUN
- 0206025002 KNOW THAT LIVING ORGANISMS HAVE STRUCTURES THAT ENABLE THE
- 0206025003 KNOW THAT AN ORGANISM'S SPECIALIZED STRUCTURES ENABLE IT TO
- 0206025004 KNOW THAT HEREDITY AND ENVIRONMENT WORK TOGETHER.

PRODUCT OF ITS HEREDITY AND ENVIRONMENT.

AND INVOLUNTARY.

BE SIMPLE OR COMPLEX.

RESPONSES TO CHANGES (STIMULI) IN THE ENVIRONMENT.

AND BY SUBSTITUTING A NEW STIMULUS AND ASSOCIATING IT WITH THE ORIGINAL

RESULT FROM INTERACTION OF INHERITED STRUCTURES WITH STIMULI.

CONDITIONED REFLEX BY CONDITIONING A FISH TO RESPOND TO A STIMULUS (SUCH AS A
RESPONDS WITHOUT FOOD.

SPECIALLY ADAPTED FOR DEFENSE AGAINST HOSTILE MICROORGANISMS IN THEIR ENVIRONMENT.

DETERMINED BY STRUCTURE AND FUNCTION TO THEIR ENVIRONMENT.

STRUCTURES THAT ENABLE THEM TO RESPOND TO STIMULI IN THEIR ENVIRONMENT.

DETERMINED STRUCTURES ENABLE IT TO INTERACT WITH THE ENVIRONMENT.

WORK TOGETHER.

0206025005 KNOW THAT THE ENVIRONMENT FOR GROWTH OF VIRUSES DIFFERS FROM THA

0206030 ADAPTATION (MAN)

0206030001 KNOW THAT CHEMICAL TECHNOLOGY HAS PROVIDED MANY SUBSTANC

0206030002 KNOW THAT MAN CHANGES THE ENVIRONMENT OF VIRUSES IN SEEKING

0206030003 KNOW THAT MAN ATTEMPTS TO MANAGE HIS ENVIRONMENT,

0206030004 INFER THAT THE CONQUEST OF DISEASE IS A COOPERATIVE EFFORT.

0206030005 KNOW THAT MODERN TECHNOLOGY USES CONCEPTS OF SCIENCE TO FREE THE

0206030006 KNOW THAT MAN CHANGES THE ENVIRONMENT OF MICROORGANISMS AS HE SE

0206090 CLASSIFY (MATTER)

0206090001 KNOW THAT THERE ARE HIDDEN LIKENESSES IN MATTER.

0206090002 KNOW THAT MATTER CAN UNDERGO CHANGE.

0206090003 GIVEN A LIST OF EARLY THEORIES ON MATTER, MATCH EACH THEORY W
BOYLE, DEMOCRITUS, AND EMPEDOCLES).

0206090004 CLASSIFY COMMON SUBSTANCES AS ELEMENTS OR COMPOUNDS WHEN GIV

0206090005 CLASSIFY SUBSTANCES (E.G., SUGAR, SALT, GLASS) AS CRYSTALL
OR DRAWING OF THE MOLECULAR ARRANGEMENTS.

FOR GROWTH OF VIRUSES DIFFERS FROM THAT OF OTHER LIVING THINGS.

SCIENCE HAS PROVIDED MANY SUBSTANCES WITH USEFUL PROPERTIES.

THE ENVIRONMENT OF VIRUSES IN NATURE IS UNFRIENDLY TO THEM AS HE SEEMS TO CONQUER DISEASE.

SCIENTISTS TRY TO MANAGE HIS ENVIRONMENT.

THE CONQUEST OF DISEASE IS A COOPERATIVE EFFORT.

SCIENTISTS USE CONCEPTS OF SCIENCE TO FREE THE ENVIRONMENT OF HARMFUL MICROORGANISMS.

SCIENTISTS MANAGE THE ENVIRONMENT OF MICROORGANISMS AS HE SEEKS TO CONQUER DISEASE.

RESEMBLANCES IN MATTER.

CHANGE.

THEORIES ON MATTER, MATCH EACH THEORY WITH THE SCIENTIST WHO FURTHERED IT (DALTON, BOYLE, RAVENEL, AND DALTON).

CLASSIFY ELEMENTS OR COMPOUNDS

WHEN GIVEN SYMBOLS, FORMULAS, OR MODELS.

CLASSIFY (SUGAR, SALT, GLASS) AS CRYSTALLINE OR NONCRYSTALLINE WHEN GIVEN A DESCRIPTION

WHEN GIVEN A DESCRIPTION

0206110

CLOTH

0206110001

KNOW THAT SILK FIBERS ARE MADE BY A LIVING ANIMAL.

0206110002

KNOW THAT KNOWLEDGE OF MOLECULAR STRUCTURE ENABLES MAN TO INVENT

0206110003

KNOW THAT FIBERS ARE MADE OF COMMON ELEMENTS.

0206110004

KNOW THAT ATOMS CAN BE REARRANGED IN MOLECULES TO FORM FIBERS

0206120

ELECTRICITY

0206120001

APPLY INFORMATION ON THE STRUCTURE OF THE ATOM IN EXPLAINING

0206120002

EXPLAIN HOW THE PROCESSES OF 'INDUCTION' AND 'ELECTRON TRANSFER'

0206120003

EXPLAIN HOW ATTRACTION AND REPULSION BETWEEN CHARGED OBJECTS
ON THE OBJECTS.

0206120004

DESCRIBE VARIABLES THAT AFFECT EXPERIMENTS ON STATIC ELECTRICITY

0206120005

DESCRIBE SOME VARIABLES THAT AFFECT EXPERIMENTS ON STATIC ELECTRICITY

0206120006

KNOW THAT FRICTION MAY TRANSFER ELECTRONS, GIVING OBJECTS

0206120007

THE CHILD WILL DEMONSTRATE A FORCE OF ATTRACTION BY RUBBING
OF TISSUE PAPER TO CLING TO THE ROD.

0206120008

KNOW THAT STATIC ELECTRICITY IS STORED ENERGY; CURRENT ELECTRICITY

0206120009

KNOW THAT METALS ARE GOOD CONDUCTORS.

MADE BY A LIVING ANIMAL.

MOLECULAR STRUCTURE ENABLES MAN TO INVENT NEW FIBERS WITH IMPROVED PROPERTIES,

OF COMMON ELEMENTS,

ARRANGED IN MOLECULES TO FORM FIBERS WITH SPECIAL PROPERTIES.

STRUCTURE OF THE ATOM IN EXPLAINING STATIC ELECTRICITY.

OF 'INDUCTION' AND 'ELECTRON TRANSFER' ARE USED TO DEVELOP STATIC CHARGES ON OBJECTS

REPULSION BETWEEN CHARGED OBJECTS ARE RELATED TO THE KINDS OF ELECTRICAL CHARGES

EFFECT EXPERIMENTS ON STATIC ELECTRICITY AND EXPLAIN THE EFFECT.

WHAT AFFECT EXPERIMENTS ON STATIC ELECTRICITY AND EXPLAIN THE EFFECT.

TRANSFER ELECTRONS, GIVING OBJECTS AN ELECTRIC CHARGE.

A FORCE OF ATTRACTION BY RUBBING A PLASTIC ROD WITH A WOOL CLOTH, CAUSING PIECES

OF THE ROD. POTENTIAL ENERGY IS STORED ENERGY; CURRENT ELECTRICITY IS KINETIC ENERGY.

CONDUCTORS.

- 0206120010 KNOW THAT ELECTRIC ENERGY CAN BE CHANGED INTO OTHER
- 0206120011 KNOW THAT THE ENERGY GOTTEN OUT OF MOVING ELECTRONS IS MOVE THROUGH A CIRCUIT.
- 0206120012 KNOW THAT A MAGNET MOVING IN A CCIL OF WIRE INDUCES A CAN BE INCREASED.
- 0206120013 DEMONSTRATE EXISTANCE OF ELECTRIC CURRENT USING THE GALVANOMETER POINTER TO MOVE AS THE MAGNET IS MOVED
- 0206120014 DEMONSTRATE INCREASING THE CURRENT BY USING A STRONGER MORE WINDINGS IN THE COIL RATHER THAN FEWER WINDINGS.
- 0206120015 KNOW THAT A WIRE THROUGH WHICH ELECTRONS ARE FLOWING
- 0206120016 KNOW THAT A STRONGER MAGNET MAY BE MADE BY CONVERTING
- 0206120017 KNOW THAT THE ENERGY OF MOVING ELECTRONS CAN BE USED TO
- 0206120018 DEMONSTRATE SUBSTANCES VARY IN THEIR ABILITY TO CONDUCT CONDUCTIVITY OF VARIOUS METALS CAUSING A LAMP TO LIGHT.
- 0206120019 CONSTRUCT A CIRCUIT TESTER BY CONNECTING DRY CELL CAUSING THE LAMP TO LIGHT WHEN THE CIRCUIT IS COMPLETED.
- 0206120020 KNOW THAT MAGNETISM AND MECHANICAL ENERGY TOGETHER FLOW OF ELECTRONS CAN BE CONVERTED INTO A STEADY
- 0206120021 LOCATE AND IDENTIFY THE PARTS (CORE, COIL, SOURCE) OF AN ONE.
- 0206120022 DEMONSTRATE HOW STRENGTH OF MAGNETIC FIELD PRODUCED BY WIRE AROUND THE CORE.
- 0206120023 APPLY PRINCIPLES OF ELECTROMAGNETISM WHEN YOU MAKE A PEOPLE.

CAN BE CHANGED INTO OTHER KINDS OF ENERGY.

THE AMOUNT OF MOVING ELECTRONS IS NEVER GREATER THAN THE ENERGY PUT INTO MAKING ELECTRONS.

A COIL OF WIRE INDUCES A FLOW OF ELECTRONS IN THE WIRE; THIS FLOW OF ELECTRONS

ELECTRIC CURRENT USING GALVANMETER, COIL OF WIRE AND A STRONG MAGNET, CAUSING

TO MOVE AS THE MAGNET IS MOVED THROUGH THE COIL.

CURRENT BY USING A STRONGER MAGNET, USING FASTER RATHER THAN SLOWER MOVEMENTS AND

RATHER THAN FEWER WINDINGS.

EACH ELECTRON AS IT IS FLOWING HAS A MAGNETIC FIELD.

THIS MAY BE MADE BY CONVERTING ELECTRIC ENERGY INTO A MAGNETIC FORCE.

MOVING ELECTRONS CAN BE USED TO DO WORK.

TEST THEM IN THEIR ABILITY TO CONDUCT ELECTRICITY, BY USING A CIRCUIT TESTER TO CHECK

FOR SHORTS CAUSING A LAMP TO LIGHT.

TRY CONNECTING DRY CELL TERMINALS, THREE PIECES OF WIRE AND A LAMP AND SOCKET

WHEN THE CIRCUIT IS COMPLETED.

MECHANICAL ENERGY TOGETHER PROVIDE A STRONG AND STEADY FLOW OF ELECTRONS; THIS

CONVERTED INTO A STEADY FORCE TO DO WORK.

PARTS (CORE, COIL, SOURCE) OF AN ELECTROMAGNET WHEN GIVEN A DESCRIPTION OR DIAGRAM OF

THE MAGNETIC FIELD PRODUCED BY AN ELECTROMAGNET IS AFFECTED BY THE NUMBER OF TURNS OF

THE MAGNETISM WHEN YOU MAKE A SIMPLE ELECTROMAGNET. DEMONSTRATE ITS USE TO A GROUP OF

- 0206120024 KNOW THAT IN AN ELECTRIC BELL, ELECTRIC ENERGY DOES WORK IN MO
- 0206120025 CONSTRUCT ELECTRIC BELL. MAKE COIL OF 100 TURNS OF WIRE.
VOLT DRY CELLS.
- 0206120026 DEMONSTRATE HOW TO CONNECT DRY CELLS AND WIRE TO ELECT
- 0206120027 DEMONSTRATE OPERATION OF ELECTRIC BELL. RING IT WHEN KNIFE
- 0206120028 NAME PARTS OF ELECTRIC BELL.
- 0206120029 DESCRIBE HOW AN ELECTRIC BELL WORKS BY OBSERVING MECHA
OF CURRENT.
- 0206120030 KNOW THAT ELECTRIC ENERGY CAN BE CONVERTED TO SOUND ENERG
- 0206120031 MAKE WORKING MODEL OF TELEGRAPH. MAKE COIL AND KEY. USE W
- 0206120032 DEMONSTRATE OPERATION OF TELEGRAPH. SOUNDER MAKES CLICK
- 0206120033 MAKE WORKING MODEL OF TELEPHONE TRANSMITTER. USE SUGAR BOX,
EAPPHO?E, AND FOUR 1.5 VOLT DRY CELLS.
- 0206120034 DEMONSTRATE OPERATION OF TELEPHONE TRANSMITTER. SPEAK INTO
VOICE.
- 0206120035 DEMONSTRATE HOW TELEPHONE RECEIVER CHANGES ELECTRICITY TO SO
CELL. IRON DISC VIBRATES AND MAKES SOUND WAVES.
- 0206120036 KNOW THAT AN ELECTRIC MOTOR TRANSFERS AND MULTIPLIES A FORCE
- 0206120037 MAKE WORKING MODEL OF ELECTRIC MOTOR. MAKE ARMATURE AND COILS
VOLT DRY CELLS.

ERIC BELL, ELECTRIC ENERGY DOES WORK IN MOVING AN OBJECT, THE CLAPPER, THROUGH A DISTANCE.

LL. MAKE COIL OF 100 TURNS OF WIRE. USE CLAPPER, BELL, KNIFE, SWITCH, WOOD, 2 1.5-

CONNECT DRY CELLS AND WIRE TO ELECTRIC BELL SO IT RINGS.

OF ELECTRIC BELL. RING IT WHEN KNIFE SWITCH CLOSED.

C BELL.

ERIC BELL WORKS BY OBSERVING MECHANISM AT REST AND WHILE IT IS RINGING. DISCUSS FLO

ERGY CAN BE CONVERTED TO SOUND ENERGY BY A MECHANICAL DEVICE.

TELEGRAPH. MAKE COIL AND KEY. USE WOOD ADD TWO 1.5 VOLT DRY CELLS.

OF TELEGRAPH. SOUNDER MAKES CLICKS AS KEY DEPRESSED.

TELEPHONE TRANSMITTER. USE SUGAR BOX, ALUMINUM STRIPS, PAPER CLIPS, WIRE, PENICIL LEADS, 5 VOLT DRY CELLS.

OF TELEPHONE TRANSMITTER. SPEAK INTO BOX. VIBRATIONS CARRY CURRENT WITH PATTERN-LIKE

ONE RECEIVER CHANGES ELECTRICITY TO SOUND. EXPOSE INSIDE OF RECIEVER, TOUCH WIRES TO DR
TES AND MAKES SOUND WAVES.

MOTOR TRANSFERS AND MULTIPLIES A FORCE.

ELECTRIC MOTOR. MAKE ARMATURE AND COILS OF WIRE. USE KNIFE, SWITCH, PEGBOARD, AND TWO 1.

- 0206120038 DEMONSTRATE OPERATION OF ELECTRIC MOTOR. ARMATURE SPINS WHEN KNIFE
- 0206120039 KNOW THAT OPENING AND CLOSING A SWITCH IN AN ELECTRIC CIRCUIT CAN
- 0206120040 KNOW THAT SOUND WAVES MAY BE CONVERTED INTO VARYING STRENGTHS OF
CONDUCTOR, AND RECONVERTED INTO SOUND WAVES.
- 0206120041 KNOW THAT SOUND WAVES CAN BE CONVERTED INTO ELECTRICAL ENERGY, THROUGH
SOUND WAVES.
- 0206120042 KNOW THAT ELECTRIC ENERGY CAN BE CHANGED TO ELECTROMAGNETIC
SPACE AT THE SPEED OF LIGHT.
- 0206120043 KNOW THAT WHENEVER ELECTRONS FLOW THROUGH A WIRE, THEY SET UP A MAGNETIC
FIELD.
- 0206120044 KNOW THAT ELECTRONS MOVING BACK AND FORTH GENERATE ELECTROMAGNETIC
WAVES.
- 0206120045 KNOW THAT ELECTROMAGNETIC WAVES CAN BE CHANGED TO ELECTRIC ENERGY
AND VICE VERSA.
- 0206120046 KNOW THAT LIGHT ENERGY LIKE SOUND ENERGY, CAN BE CONVERTED TO
ELECTRIC ENERGY.
- 0206120047 KNOW THAT ELECTROMAGNETIC WAVES CAN BE SEPARATED BY THEIR FREQUENCIES
AND WAVELENGTHS.
- 0206120048 KNOW THAT ELECTROMAGNETIC WAVES CAN ACTIVATE DEVICES IN SPACE TO GATHER
SIGNALS TO EARTH.
- 0206125 ENERGY TRANSFORMATION
- 0206125001 KNOW THAT WHEN ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF
ENERGY IS UNCHANGED.
- 0206125002 KNOW THAT IN ALL MASS-ENERGY RELATIONSHIPS, THE SUM OF THE AMOUNTS OF
MASS AND ENERGY IS UNCHANGED.

C MOTOR. ARMATURE SPINS WHEN KNIFE SWITCH CLOSED.

SWITCH IN AN ELECTRIC CIRCUIT CAN BE USED TO TRANSMIT SIGNALS.

VERTED INTO VARYING STRENGTHS OF ELECTRIC CURRENT, TRANSFERRED THROUGH A
SOUND WAVES.

VERTED INTO ELECTRICAL ENERGY, TRANSMITTED OVER A CIRCUIT, AND RECONVERTED TO

CHANGED TO ELECTROMAGNETIC WAVES THAT CAN CARRY SIGNALS THROUGH

W THROUGH A WIRE, THEY SET UP A MAGNETIC FIELD AROUND THE WIRE.

AND FORTH GENERATE ELECTROMAGNETIC WAVES.

CAN BE CHANGED TO ELECTRIC ENERGY THAT CAN BE CONVERTED INTO SOUND WAVES.

D ENERGY, CAN BE CONVERTED TO ELECTROMAGNETIC WAVES.

CAN BE SEPARATED BY THEIR FREQUENCIES.

CAN ACTIVATE DEVICES IN SPACE TO GATHER LIGHT AND SOUND AND TRANSMIT THEIR

OM ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF ENERGY REMAINS UNCHANGED.

AT ERIC I PS, THE SUM OF THE AMOUNTS OF MATTER AND ENERGY INVOLVED REMAINS

0206125003 GIVEN DESCRIPTION OF AN ENERGY CHANGE, EXPLAIN IF IT HAS BEEN A TRANSFORMATION OF ENERGY AND/OR NAME THE FORM OR STATE TO WHICH IT HAS BEEN CHANGED.

0206125004 RECOGNIZE SITUATIONS IN WHICH WORK, AS A SCIENTIST DEFINES IT.

0206130 ENERGY TRANSFORMATION (AIR)

0206130001 DEMONSTRATE FASTER MOVING AIR HAS LOWER PRESSURE BY BLOWING BEHIND AN INVERTED FUNNEL CONTAINING A PING PONG BALL CAUSING THE BALL TO BE LIFTED.

0206130002 KNOW THAT AIR MOVING FASTER OVER THE UPPER SURFACE OF AN OBJECT DEVELOPS LOWER PRESSURE.

0206130003 DEMONSTRATE: KINETIC ENERGY INCREASES AND TEMPERATURE RISES AS MASS OF AIR IN TIRE. PUMP GETS HOT NEAR BOTTOM. USE FIRE SYRINGE TO COMPRESS AIR.

0206135 ENERGY TRANSFORMATION (ATOMS)

0206135001 EXPLAIN DIFFERENCE BETWEEN ATOMS AND MOLECULES WHEN GIVEN A DIAGRAM.

0206135002 MAKE MODELS OF NEUTRAL ATOMS OF DIFFERENT ELEMENTS.

0206135003 NAME KINDS OF PARTICLES IN ATOM.

0206135004 RECOGNIZE RELATIONSHIP BETWEEN THE ATOMIC NUMBER OF AN ELEMENT AND THE NUMBER OF PROTONS IN THE NUCLEUS OF AN ATOM OF THAT ELEMENT.

0206135005 DESCRIBE ATOMS. MADE UP OF 3 KINDS OF PARTICLES, PROTONS, NEUTRONS, ELECTRONS. OBSERVE & EXPLAIN RELATIONSHIP BETWEEN MASS AND NUMBER OF PROTONS AND NEUTRONS.

0206135006 KNOW THAT ELECTRONS ARE EXTREMELY SMALL.

0206135007 KNOW THAT LOSS OR GAIN OF AN ELECTRON GIVES AN ATOM A POSITIVE OR NEGATIVE CHARGE.

CHANGE, EXPLAIN IF IT HAS BEEN A TRANSFORMATION IN THE FORM OR THE STATE OF THE
STATE TO WHICH IT HAS BEEN CHANGED.

WORK, AS A SCIENTIST DEFINES IT, IS DONE.

IS LOWER PRESSURE BY BLOWING BETWEEN TWO SUSPENDED APPLES AND BLOWING THROUGH
PING PONG CAUSING THE BALL TO BE SUSPENDED INSIDE THE FUNNEL.

THE UPPER SURFACE OF AN OBJECT DEVELOPS A LIFTING FORCE.

RISES AND TEMPERATURE RISES AS MOLECULES OF GAS PRESS CLOSER. PUMP AIR INTO
USE FIRE SYRINGE TO COMPRESS AIR. AIR GETS HOT, IGNITES COTTON INSIDE.

AND MOLECULES WHEN GIVEN A DIAGRAM, DRAWING, OR DESCRIPTION OF EACH.

DIFFERENT ELEMENTS.

THE ATOMIC NUMBER OF AN ELEMENT AND THE NUMBER OF ELECTRONS IN THE ATOM OF THE

KINDS OF PARTICLES, OBSERVE 4 DIFFERENT MODELS OF ATOMS WITH SAME KINDS OF

SMALL.

ERIC
GIVES AN ATOM A CHARGE.

0206135008 KNOW THAT THE BASIC ATOMIC PARTICLES ARE PROTONS WITH A POSITIVE CHARGE AND NEUTRONS WITH NO CHARGE.

0206135009 KNOW THAT EACH DIFFERENT ATOM CONSISTS OF PARTICLES ARRANGED IN ITS CHARACTERISTIC STRUCTURE.

0206135010 KNOW THAT THE NUMBER OF PARTICLES IN AN ATOM DETERMINES ITS STRUCTURE.

0206135011 REINFORCE CONCEPT OF ATOMIC STRUCTURE BY MODELING SEVERAL ATOMS.

0206135012 KNOW THAT WHEN THE NUCLEUS OF THE ATOM CHANGES, ENERGY IS RELEASED.

0206135013 KNOW THAT THE PARTS OF THE ATOM ARE TIGHTLY BOUND TOGETHER; CELESTIAL BODIES ARE HELD TOGETHER BY GRAVITATION.

0206135014 KNOW THAT RADIOACTIVE (UNSTABLE) ATOMS EMIT PARTICLES FROM THEIR NUCLEI.

0206135015 KNOW THAT A CHANGE IN THE NUMBER OF PROTONS IN AN ATOM CHANGES THE ATOMIC NUMBER.

0206135016 KNOW THAT ENERGY MUST BE PUT IN TO INCREASE SPEED OF NUCLEAR PARTICLES.

0206135017 KNOW THAT ENERGY INPUT IS NEEDED TO RAISE THE ATOMIC NUMBER.

0206140 ENERGY TRANSFORMATION (BURNING CANDLE)

0206140001 DEMONSTRATE WHEN A FUEL BURNS WATER IS FORMED, BY PLACING A BURNING CANDLE UNDER A JAR. WATER BEHIND THE JAR GOES OUT AND WATER FORMS INSIDE JAR.

0206145 ENERGY TRANSFORMATION (CARBON DIOXIDE)

0206145001 DEMONSTRATE THAT CARBON DIOXIDE IS FORMED DURING THE SAME ACTIVITY WITH LIMEWATER, CAUSING THE LIMEWATER TO TURN MILKY.

PARTICLES ARE PROTONS WITH A POSITIVE CHARGE, ELECTRONS WITH A NEGATIVE CHARGE, AND
 M CONSISTS OF PARTICLES ARRANGED IN ITS OWN CHARACTERISTIC STRUCTURE.

ICLES IN AN ATOM DETERMINES ITS STRUCTURE AND ITS ATOMIC WEIGHT.

STRUCTURE BY MODELING SEVERAL ATOMS.

F THE ATOM CHANGES, ENERGY IS RELEASED.

ATOM ARE TIGHTLY BOUND TOGETHER; CERTAIN PARTS ARE ELECTRICALLY CHARGED.

LE) ATOMS EMIT PARTICLES FROM THEIR NUCLEUS; THESE PARTICLES HAVE ENERGY.

BER OF PROTONS IN AN ATOM CHANGES THE ATOM INTO THAT OF ANOTHER ELEMENT.

IN TO INCREASE SPEED OF NUCLEAR PARTICLES.

DED TO RAISE THE ATOMIC NUMBER.

G CANDLE)

WATER IS FORMED, BY PLACING A BURNING CANDLE IN A CLOSED JAR UNTIL THE FLAME
 DE JAR.

DIOXIDE)

DE, IS FORMED DURING THE SAME ACTIVITY, BY MISSING THE GAS TRAPPED IN THE JAR
 IF R TO TURN MILKY.

0206160 ENERGY TRANSFORMATION (COMPOUNDS)
0206160001 KNOW THAT ENERGY IS NEEDED TO SEPARATE METALS FROM THEIR COMPOUNDS.

0206165 ENERGY TRANSFORMATION (COMPOUNDS AND MIXTURES)
0206165001 FROM A GIVEN DEFINITION OR DESCRIPTION OF A SUBSTANCE, RECOGNIZE SU

0206175 ENERGY TRANSFORMATION (COPPER OXIDE)
0206175001 THE CHILD WILL DEMONSTRATE THAT COPPER CAN BE OBTAINED FROM COPPER TONGS IN A BUNSEN BURNER, CAUSING SOME COPPER TO FORM ON THE TONGS.

0206185 ENERGY TRANSFORMATION (ELECTRIC)
0206185001 DEMONSTRATE SEPARATION OF COMPOUND WITH ELECTRIC CURRENT USING TWO 1-STEEL SPOONS TO WIRE, PUT IN COPPER SULFATE SOLUTION.

0206190 ENERGY TRANSFORMATION (ELEMENTS)
0206190001 CLASSIFY COMMON SUBSTANCES AS ELEMENTS OR COMPOUNDS WHEN GIVEN S
0206190002 APPLY INFORMATION OBTAINED FROM SIMPLE EXPERIMENTAL TESTS TO IDE

0206205 ENERGY TRANSFORMATION (FORMS)
0206205001 EXPLAIN WHAT FORM OF ENERGY (CHEMICAL, MECHANICAL, HEAT, LIGHT, SOUND (KINETIC OR POTENTIAL) DIFFERENT OBJECTS HAVE, USE, OR PRODUCE THAT
0206205002 FROM LIST OF COMMON OBJECTS, RECOGNIZE THOSE WHICH ARE IN A STATE OF MOTION). WHICH ARE IN A STATE OF KINETIC ENERGY (ENERGY OF

POUNDS)
TO SEPARATE METALS FROM THEIR COMPOUNDS.

POUNDS AND MIXTURES)
DESCRIPTION OF A SUBSTANCE, RECOGNIZE SUBSTANCE AS EITHER A COMPOUND OR A MIXTURE.

PER OXIDE)
THAT COPPER CAN BE OBTAINED FROM COPPER OXIDE, BY HEATING COPPER OXIDE POWDER ON
CAUSING SOME COPPER TO FORM ON THE TONGS.

TRIC)
COMPOUND WITH ELECTRIC CURRENT USING TWO 1-1/2 VOLT DRY CELLS, ATTACH TWO STAINLESS
IN COPPER-SULFATE SOLUTION.

ENTS)
AS ELEMENTS OR COMPOUNDS WHEN GIVEN SYMBOLS, FORMULAS, OR MODELS,

FROM SIMPLE EXPERIMENTAL TESTS TO IDENTIFY ELEMENTS.

OS)
(CHEMICAL, MECHANICAL, HEAT, LIGHT, SOUND, ELECTRICAL) AND/OR WHAT STATE OF ENERGY
DIFFERENT OBJECTS HAVE, USE, OR PRODUCE THAT MAKE IT POSSIBLE FOR THEM TO DO WORK.

RECOGNIZE THOSE WHICH ARE IN A STATE OF POTENTIAL ENERGY (STORED ENERGY) AND THOSE
KINETIC ENERGY (ENERGY OF MOTION).

- 0206210 ENERGY TRANSFORMATION (HEAT)
- 0206210001 KNOW THAT THE NATURE OF HEAT HAS ENABLED MAN TO DEVELOP WAYS TO
- 0206210002 KNOW THAT HEAT IS THE KINETIC ENERGY OF MOLECULES.
- 0206210003 KNOW THAT HEAT IS TRANSFERRED FROM ONE PLACE TO ANOTHER BY MOVING
- 0206210004 KNOW THAT HEAT ENERGY IS TRANSFERRED FROM MOLECULE TO MOLECULE
- 0206210005 THE CHILD WILL DESCRIBE THAT THE VACUUM FLASK ACTS AS AN INSULATOR FOR HEAT.
- 0206210006 KNOW THAT A SUBSTANCE BECOMES COOLER AS A RESULT OF HEAT TRANSFER
- 0206210007 KNOW THAT HEAT GIVES GREATER KINETIC ENERGY TO MOLECULES
- 0206210008 TELL DIFFERENCE BETWEEN HEAT AND TEMPERATURE, DISCUSS HEAT IN TERMS OF ENERGY AND TEMPERATURE AS MEANS OF MEASURING HOT AND COLD.
- 0206215 ENERGY TRANSFORMATION (INTERNAL COMBUSTION)
- 0206215001 GIVEN DRAWINGS SHOWING MOVEMENT OF AIR OR WATER MOLECULES AND PRODUCTION OF KINETIC ENERGY.
- 0206215002 GIVEN DESCRIPTION OF MACHINE ACTIVITIES THAT SHOW DIFFERENT FORMS OF ENERGY (ELECTRICAL), MATCH EACH MACHINE ACTIVITY WITH FORM OF ENERGY I
- 0206215003 GIVEN DESCRIPTION OF AN INTERNAL COMBUSTION ENGINE, RECOGNIZE MECHANICAL ENERGY IS BEING USED OR PRODUCED.
- 0206220 ENERGY TRANSFORMATION (KINETIC)
- 0206220001 KNOW THAT MOLECULES MAY BE GIVEN KINETIC ENERGY IN A CHEMICAL

HAS ENABLED MAN TO DEVELOP WAYS TO MODIFY AND CONTROL HIS ENVIRONMENT.

C ENERGY OF MOLECULES,

D FROM ONE PLACE TO ANOTHER BY MOVING MOLECULES,

NSFERRED FROM MOLECULE TO MOLECULE; IT CANNOT BE TRANSFERRED IN A VACUUM,

THE VACUUM FLASK ACTS AS AN INSULATOR, WHICH SLOW DOWN OR PREVENTS THE TRAVEL OF

S COOLER AS A RESULT OF TRANSFER OF ITS HEAT ENERGY,

KINETIC ENERGY TO MOLECULES,

AND TEMPERATURE; DISCUSS HEAT IN TERMS OF NUMBER AND SPEED OF MOLECULES IN MOTION
MEASURING HOT AND COLD,

NAL COMBUSTION)

ENT OF AIR OR WATER

ACTIVITIES THAT SHOW
INE ACTIVITY WITH FORM OF

RNAL COMBUSTION ENGINE,
SFD OR PRODUCED.

IC)

IVEN KINETIC ENERGY IN A

MOLECULES, RECOGNIZE WHICH ILLUSTRATES THE GREATEST

DIFFERENT FORMS OF ENERGY (CHEMICAL, MECHANICAL, OR
ENERGY IT USES OR PRODUCES.

RECOGNIZE WHERE POTENTIAL, KINETIC, CHEMICAL, AND

CHEMICAL CHANGE.

0206220002 KNOW THAT AN INCREASE IN KINETIC ENERGY CAN PRODUCE AN UNBALANCE

0206220003 KNOW THAT ACTION AND REACTION, RESULTING FROM KINETIC ENERGY GI
FORCE.

0206220004 KNOW THAT ROCKETS AND JETS OPERATE ON THE SAME PRINCIPLE
INTO FORCE.

0206220005 KNOW THAT A TRANSFER OF ELECTRONS FROM ONE OBJECT TO ANOTHER G
ELECTRONS MOVE, THEY HAVE KINETIC ENERGY.

0206220006 DESCRIBE RESULTS OF KINETIC ENERGY ACTIVITY. DUE TO MOLECULES
AS GAS IS COMPRESSED.

0206225 ENERGY TRANSFORMATION (LIGHT AND SOUND)

0206225001 KNOW THAT THE DIRECTION OF A MOVING OBJECT CAN BE DETERMINE

0206230 ENERGY TRANSFORMATION (LIQUID)

0206230001 DEMONSTRATE MOTION OF INK PARTICLES: ADD FEW DROPS OF INK IN GLA
WATER.

0206230002 THE CHILD WILL DESCRIBE EXAMPLES OF BERNOULLI'S DISCOVERY
PRESSURE WITHIN THE FLUID.

0206235 ENERGY TRANSFORMATION (MASS)

0206235001 TELL THE DIFFERENCE BETWEEN OPERATIONAL DFFINITIONS OF WEIGHT AND

0206235002 DESCRIBE HOW MASS, VOLUME, AND DENSITY ARE RELATED WHEN GIVEN INFO

IN KINETIC ENERGY CAN PRODUCE AN

UNBALANCED FORCE.

REACTION, RESULTING FROM KINETIC

ENERGY GIVEN TO MOLECULES CAN PRODUCE AN UNBALANCED

JETS OPERATE ON THE SAME

PRINCIPLE, BUT ROCKETS CONVERTS KINETIC ENERGY DIRECTLY

OF ELECTRONS FROM ONE OBJECT TO
HAVE KINETIC ENERGY.

ANOTHER GIVES THEM POTENTIAL ENERGY; WHEN THE

KINETIC ENERGY ACTIVITY. DUE TO

MOLECULES BOUNCING OFF ONE ANOTHER WITH GREATER ENERGY

(LIGHT AND SOUND)

OF A MOVING OBJECT CAN BE

DETERMINED BY WAVELENGTHS OF LIGHT OR SOUND.

(LIQUID)

INK PARTICLES: ADD FEW DROPS OF

INK IN GLASS OF WATER. INK WILL SPREAD THROUGHOUT

EXAMPLES OF BERNOULLI'S
FLUID.

DISCOVERY THAT THE FASTER A FLUID MOVES THE LOWER THE

(MASS)

BETWEEN OPERATIONAL DEFINITIONS OF

WEIGHT AND OF MASS.

MASS AND DENSITY ARE RELATED WHEN

GIVEN INFORMATION ON MASS AND VOLUME OF VARIOUS OBJECTS.

0206245

ENERGY TRANSFORMATION (MOLECULAR)

0206245001

KNOW THAT WHEN A SUBSTANCE BECOMES WARMER, THE MOTION OF ITS MOLECULES

0206245002

KNOW THAT THE ENERGY OF MOVING MOLECULES OF AIR AND WATER PROVIDE

0206245003

KNOW THAT A CHANGE OF STATE INCREASES OR DECREASES THE KINETIC ENERGY

0206245004

DESCRIBE HOW KINETIC ENERGY IS USED WHEN BOILING WATER BLOWS THE CORK

0206245005

DEMONSTRATE MOVING MOLECULES DO WORK. PLACE WATER IN TEST TUBE, CAUSING CORK TO BE BLOWN OUT.

0206245006

DESCRIBE HYDROGEN GAS. COLLECT FROM WATER WITH HOFFMAN APPARATUS. LIGHTED MATCH BROUGHT TO MOUTH OF TUBE.

0206250

ENERGY TRANSFORMATION (NUCLEAR)

0206250001

KNOW THAT IN NUCLEAR REACTIONS, A LOSS OF MATTER IS A GAIN IN ENERGY. MASS REMAINS UNCHANGED.

0206250002

KNOW THAT ENERGY CAN BE RELEASED BY FISSION OF ATOMIC NUCLEI; THE ENERGY

0206250003

KNOW THAT A CHAIN REACTION DEPENDS ON THE QUANTITY OF URANIUM WHICH

0206250004

KNOW THAT NEUTRONS, WHEN TRAVELING AT THE RIGHT SPEED, CAUSE FISSION OF NUCLEI. CONTROLLED FISSION

0206250005

KNOW THAT NUCLEAR ENERGY CAN BE HARNESSSED TO MACHINES TO DEVELOP OTHER

0206250006

KNOW THAT NUCLEAR ENERGY PRODUCES GREAT FORCES.

0206250007

KNOW THAT NUCLEAR ENERGY HAS PRODUCED USEFUL ISOTOPES.

COMES WARMER, THE MOTION OF ITS MOLECULES INCREASES.

MOLECULES OF AIR AND WATER PROVIDE A FORCE THAT CAN BE HARNESSSED TO DO WORK.

CREASES OR DECREASES THE KINETIC ENERGY OF MOLECULES OF MATTER.

USED WHEN BOILING WATER BLOWS THE CORK FROM THE TEST TUBE.

DO WORK. PLACE WATER IN TEST TUBE, FIT GREASED CORK IN PLACE AND HEAT TO BOIL,

T FROM WATER WITH HOFFMAN APPARATUS. OBSERVE THAT GLASS EXPLODES WITH A POP WHEN
OF TUBE.

A LOSS OF MATTER IS A GAIN IN ENERGY; AND THE SUM OF THE MATTER AND ENERGY

ED BY FISSION OF ATOMIC NUCLEI; THE RATE OF FISSION CAN BE CONTROLLED.

ENDS ON THE QUANTITY OF URANIUM WHICH CAN UNDERGO FISSION.

LING AT THE RIGHT SPEED, CAUSE FISSION. THE NUMBER OF NEUTRONS CAPTURED BY
SSION.

E HARNESSSED TO MACHINES TO DEVELOP OTHER FORMS OF ENERGY TO DO WORK.

ICES GREAT FORCES.

PRODUCED USEFUL ISOTOPES.

020625008 KNOW THAT IN A NUCLEAR REACTION, MATTER LOST EQUALS ENERGY GAIN

020625009 KNOW THAT IN NUCLEAR REACTIONS, THE NUCLEI OF ATOMS ARE DIVIDED (FISSION)

020625010 DEMONSTRATE USE OF GEIGER COUNTER, RECORD COUNTS ON GAUGE FROM

020625011 MAKE MODEL OF NUCLEAR REACTOR.

020625012 KNOW THAT IN A FUSION REACTION, SOME MATTER IS CONVERTED TO TREMENDOUS

020625013 KNOW THAT GREAT ENERGY STARTS A FUSION REACTION; GREAT ENERGY IS

020625014 GIVEN DESCRIPTION OF AN ATOM BEFORE AND AFTER NUCLEAR PROCESS HAS
NATURAL RADIOACTIVE DECAY, ARTIFICIAL RADIOACTIVE DECAY (FISSION)

020625015 IDENTIFY BENEFICIAL (E.G., TREATMENT OF CANCER) AND THE DETRIMENTAL
NUCLEAR ENERGY.

0206265 ENERGY TRANSFORMATION (PRESSURE)

0206265001 KNOW THAT DIFFERENCES IN PRESSURE RESULT IN A FORCE ACTING IN

0206265002 KNOW THAT A DIFFERENCE IN PRESSURE MAY RESULT IN MOTION.

0206265003 KNOW THAT AN INCREASE IN PRESSURE RAISES TEMPERATURE, AND A RISE

0206275 ENERGY TRANSFORMATION (SUBSTANCE)

0206275001 THE CHILD WILL DESCRIBE THE PRESENCE OF SUGAR IN THE TEST TUBE
DIASTASE CHANGING STARCH TO SUGAR.

REACTION, MATTER LOST EQUALS ENERGY GAINED.

ACTIONS, THE NUCLEI OF ATOMS ARE DIVIDED (FISSION) OR COMBINED (FUSION).

ER COUNTER, RECORD COUNTS ON GUAGE FROM SOURCE, SUCH AS LUMINOUS CLOCK DIAL.

EACTION.

ACTION, SOME MATTER IS CONVERTED TO TREMENDOUS ENERGY.

TARTS A FUSION REACTION; GREAT ENERGY IS RELEASED.

ATOM BEFORE AND AFTER NUCLEAR PROCESS HAS OCCURRED, EXPLAIN WHETHER ATOM WENT THROUGH
Y, ARTIFICIAL RADIOACTIVE DECAY (FISSION), OR FUSION.

., TREATMENT OF CANCER) AND THE DETRIMENTAL (E.G., RADIOACTIVE FALLOUT) ASPECTS OF

RESSURE)

PRESSURE RESULT IN A FORCE ACTING IN THE DIRECTION OF THE LOWER PRESSURE.

N PRESSURE MAY RESULT IN MOTION.

PRESSURE RAISES TEMPERATURE, AND A RISE IN TEMPERATURE INCREASES PRESSURE.

BSTANCE)

HE PRESENCE OF SUGAR IN THE TEST TUBE WHICH TURNED YELLOW-ORANGE, DUE TO THE

- 0206280 ENERGY TRANSFORMATION (VOLUME)
- 0206280001 USE FORMULA (L X W X H) FOR FINDING VOLUME OF A REGULAR SOLID (SUC UNIT OF VOLUME (CUBIC CENTIMETER),
- 0206285 ENERGY TRANSFORMATION (WATER)
- 0206285001 DEMONSTRATE THAT COLD WATER CAN GIVE MORE HEAT TO ICE THAN HOT W BOILING WATER TO ONE, COLD TO OTHER. COLD WATER MELTS ICE FASTER
- 0206285002 MAKE TABLE OF TEMPERATURES OF WATER AND TIME TO MELT ICE.
- 0206285003 DEMONSTRATE MOTION OF WATER MOLECULES. COLUMN OF WATER WILL MOVE FLASK WHEN FLASK IS WARMED BY HANDS.
- 0206285004 THE CHILD WILL DEMONSTRATE THAT A COLUMN OF WATER DOES NOT MOVE U THE GLASS FLASK.
- 0206285005 THE CHILD WILL DESCRIBE THAT THE WATER MOVES UP THE GLASS TUBE WATER IS WARMED.
- 0206295 FISH
- 0206295001 THE CHILD WILL CONSTRUCT A HYPOTHESIS ABOUT HOW LONG IT WILL TAKE STIMULUS.
- 0206300 FORCE AND MOTION
- 0206300001 GIVEN A SERIES OF EVERYDAY ACTIVITIES, RECOGNIZE THOSE WHICH ARE COMPLETING AN ACTION OR ACTIVITY.
- 0206300002 KNOW THAT WHEN EFFORT FORCE IS MULTIPLIED, DISTANCE IS LOST.
- 0206300003 KNOW THAT FRICTION INCREASES EFFORT THAT MUST BE APPLIED, A

FINDING VOLUME OF A REGULAR SOLID (SUCH AS RECTANGULAR PRISM) USING BASIC METRIC
ETER).

CAN GIVE MORE HEAT TO ICE THAN HOT WATER. FILL TWO BEAKERS, WITH ICE, ADD 1/2 IN.
O OTHER. COLD WATER MELTS ICE FASTER.
F WATER AND TIME TO MELT ICE.

MOLECULES. COLUMN OF WATER WILL MOVE UP GLASS TUBE INSERTED AND SEALED INTO GLASS
Y HANDS.

HAT A COLUMN OF WATER DOES NOT MOVE UPWARD WHEN A VACUUM FLASK IS USED INSTEAD OF
THE WATER MOVES UP THE GLASS TUBE, DUE TO FASTER MOVING MOLECULES, WHEN THE

YPOTHESIS ABOUT HOW LONG IT WILL TAKE FOR THE FISH TO BE CONDITIONED TO THE NEW

CTIVITIES, RECOGNIZE THOSE WHICH ARE DEPENDENT UPON THE GRAVITATIONAL FORCE FOR
VITY.

IS MULTIPLIED, DISTANCE IS LOST.

EFFORT THAT MUST BE APPLIED, AND DECREASES SPEED (DISTANCE).

- 0206300004 KNOW THAT FRICTION IS A FORCE THAT RESISTS MOTION.
- 0206300005 KNOW THAT THE AMOUNT OF FRICTION DEPENDS UPON THE KINDS OF SURFA
- 0206300006 KNOW THAT THE LESS TWO SURFACES ARE IN CONTACT, THE LESS THE FRIC
- 0206300007 KNOW THAT FRICTION IS SOMETIMES USEFUL.
- 0206300008 KNOW THAT WORK IS DONE ONLY WHEN AN OBJECT IS MOVED THROUGH
- 0206300009 STATE THE RULE FOR WORK WHICH IS MULTIPLYING THE FORCE NEEDED B
- 0206300010 INFER RELATIONSHIPS AND DEVELOP AN EQUATION FOR WORK.
- 0206300011 KNOW THAT EVERY ACTION HAS AN EQUAL AND OPPOSITE REACTION
- 0206300012 KNOW THAT ACTION-REACTION CAN BE USED TO CHANGE SPEED OR DIREC
- 0206300013 USING NEWTON'S FIRST LAW OF MOTION, PREDICT WHAT WILL HAPPEN TO
APPLIED TO THE OBJECTS.
- 0206300014 PREDICT WHICH OF SEVERAL OBJECTS WILL ACCELERATE MORE WHEN GIV
DIRECTION OF THE FORCE APPLIED.
- 0206300015 RECOGNIZE FACTORS THAT WILL AFFECT THE INERTIA OF AN OBJECT IN
- 0206300016 PREDICT HOW THE FOLLOWING FACTORS AFFECT THE MOVEMENT OF OBJECT

FORCE THAT RESISTS MOTION.

FRICTION DEPENDS UPON THE KINDS OF SURFACES THAT ARE IN CONTACT.

SURFACES ARE IN CONTACT, THE LESS THE FRICTION BETWEEN THEM.

SOMETIMES USEFUL.

ONLY WHEN AN OBJECT IS MOVED THROUGH A DISTANCE.

WHICH IS MULTIPLYING THE FORCE NEEDED BY THE DISTANCE THE OBJECT IS MOVED.

DEVELOP AN EQUATION FOR WORK.

IS AN EQUAL AND OPPOSITE REACTION.

CAN BE USED TO CHANGE SPEED OR DIRECTION OF MOTION.

OF MOTION, PREDICT WHAT WILL HAPPEN TO OBJECTS MOVING OR AT REST WHEN SOME FORCE IS

APPLIED. WHEN GIVEN THE MASS OF THE OBJECTS AND THE SIZE AND

WILL AFFECT THE INERTIA OF AN OBJECT IN A GIVEN SITUATION.

FACTORS AFFECT THE MOVEMENT OF OBJECTS: FORCES, FRICTION, UNBALANCED FORCES.

0206310 GENETICS

0206310001 KNOW THAT THE CHARACTERISTICS OF A LIVING THING ARE LAID DOWN IN

0206310002 KNOW THAT INHERITED TRAITS INTERACT WITH THE ENVIRON

0206310003 KNOW THAT THE CELLS IN THE OFFSPRING OF ONLY ONE PARENT WILL CA
(CELL NUCLEUS) DETERMINES FOR THE TRAITS OF THE PARENT.

0206310004 KNOW THAT A SEED PLANT IS THE PRODUCT OF A CELL CARRYING TRAITS

0206310005 KNOW THAT THE DNA MOLECULE CARRIES IN ITS PARTS (GENES) THE COD
ORGANISM.

0206310006 KNOW THAT GENES CARRYING THE GENETIC CODE FOR A TRAIT MAY BE

0206310007 KNOW THAT THE GENETIC CODE IS CARRIED BY A LARGE MOLECUL

0206310008 KNOW THAT ORGANISMS CAN BE MAINTAINED GENETICALLY PURE FOR A G

0206310009 KNOW THAT A PURE TRAIT CAN BE KEPT PURE BY MAKING SURE THAT SE

0206310010 KNOW THAT SELECTING OF TRAITS CAN BE CONTROLLED BY SELECTI

0206310011 KNOW THAT DOMINANT AND RECESSIVE TRAITS CAN BE SORTED OUT BY

0206310012 KNOW THAT GENETIC TRAITS INTERACT IN MANY WAYS. THE RESULT:
BLENDING.

0206310013 KNOW THAT WHEN TWO DIFFERENT GENES AFFECTING THE SAME TRAIT A
ORGANISM IS A HYBRID.

0206310014 KNOW THAT THE VISIBLE APPEARANCE OF TRAITS MAY BE ALTERED

CHARACTERISTICS OF A LIVING THING ARE LAID DOWN IN A GENETIC CODE.
GENES INTERACT WITH THE ENVIRONMENT.
OFFSPRING OF ONLY ONE PARENT WILL CARRY ONLY ITS CHROMOSOMES (TINY BODIES WITHIN THE CELL) AND THE TRAITS OF THE PARENT.
THE PRODUCT OF A CELL CARRYING TRAITS FROM TWO PARENTS, A ZYGOTE, CARRIES IN ITS PARTS (GENES) THE CODE THAT DETERMINES THE INHERITED TRAITS OF AN ORGANISM.
THE GENETIC CODE FOR A TRAIT MAY BE EITHER DOMINANT OR RECESSIVE.
A TRAIT IS CARRIED BY A LARGE MOLECULE IN THE CHROMOSOME.
A TRAIT MAINTAINED GENETICALLY PURE FOR A GIVEN TRAIT, CAN BE KEPT PURE BY MAKING SURE THAT SEEDS HAVE GENES FOR ONLY THE PURE TRAIT.
THE APPEARANCE OF TRAITS CAN BE CONTROLLED BY SELECTIVE POLLINATION.
DOMINANT TRAITS CAN BE SORTED OUT BY CROSSING.
GENES INTERACT IN MANY WAYS. THE RESULTING EFFECT MAY BE DOMINANCE, RECESSIVENESS, OR CO-DOMINANCE.
DIFFERENT GENES AFFECTING THE SAME TRAIT ARE IN THE CHROMOSOME (FOR THE DNA MOLECULE), THE APPEARANCE OF TRAITS MAY BE ALTERED, BUT THE TRAITS REMAIN UNCHANGED.

- 0206310015 KNOW THAT THE GENETIC CODE CAN CHANGE.
- 0206310016 KNOW THAT CHANGES IN THE GENETIC CODE PRODUCE CHANGES IN LIVING THINGS.
- 0206310017 KNOW THAT OFFSPRING OF A SINGLE PARENT HAVE THE PARENT'S GENETIC CODE.
- 0206310018 KNOW THAT A MUTATION (A CHANGE IN THE GENE) IS PASSED ALONG IN THE GENETIC CODE.
- 0206310019 KNOW THAT IMPROVED PLANTS AND ANIMALS ARE THE PRODUCT OF SELECTIVE BREEDING.
- 0206310020 KNOW THAT OFFSPRING OF TWO PARENTS INHERIT GENES FROM BOTH PARENTS. THE GENETIC CODE OF THE OFFSPRING DEPENDS ON THE INTERACTION OF THE GENETIC CODE FROM BOTH PARENTS.
- 0206310021 KNOW THAT DESIRABLE MUTATIONS MAY BE ESTABLISHED BY CROSS-POLLINATION.
- 0206310022 KNOW THAT DESIRABLE MUTATIONS IN ANIMALS MAY BE ESTABLISHED BY BREEDING.

0206315 GEOLOGY

- 0206315001 KNOW THAT SUBSTANCES (MINERALS) IN THE EARTH'S CRUST CAN BE ALTERED BY WEATHERING.

0206320 HUMAN BODY (BEHAVIOR)

- 0206320001 KNOW THAT PAST EXPERIENCES PROVIDE INSIGHT INTO METHODS OF SOLVING PROBLEMS.
- 0206320002 THE CHILD WILL DEMONSTRATE HOW INSIGHT DEVELOPS- AS HE TRIES TO SOLVE A PROBLEM. THE MORE HE TRIES, THE MORE INSIGHT HE GAINS. MUCH WATER WILL BE DISPLACED.
- 0206320003 KNOW THAT HABITS ARE LEARNED ACTS THAT HAVE BECOME AUTOMATIC.

TE CAN CHANGE.

GENETIC CODE PRODUCE CHANGES IN LIVING THINGS.

SINGLE PARENT HAVE THE PARENT'S GENETIC CODE.

CHANGE IN THE GENE) IS PASSED ALONG IN THE GENETIC CODE.

AND ANIMALS ARE THE PRODUCT OF SELECTIVE BREEDING FOR THE DESIRED TRAITS.

NO PARENTS INHERIT GENES FROM BOTH PARENTS. AN INCREASE IN THE NUMBER OF MUTANTS
IN OF THE GENETIC CODE FROM BOTH PARENTS.

IONS MAY BE ESTABLISHED BY CROSS-POLLINATION OF PLANTS HAVING THE DESIRED TRAITS.

IONS IN ANIMALS MAY BE ESTABLISHED BY SELECTIVE BREEDING.

MINERALS) IN THE EARTH'S CRUST CAN BE ALTERED TO PRODUCE NEW MATERIALS,

THEY PROVIDE INSIGHT INTO METHODS OF SOLVING A PROBLEM AND ACHIEVING A GOAL.

HOW INSIGHT DEVELOPS- AS HE TRIES TO SOLVE A PROBLEM, USING A JAK- FOR DETERMINING HOW
SUCCEEDED.

THESE ACTS THAT HAVE BECOME AUTOMATIC.

| | |
|------------|---|
| 0206320004 | THE CHILD WILL CONSTRUCT A HYPOTHESIS, INDICATING WHETHER OR DECREASE SMOOTHLY WITH PRACTICE. |
| 0206320005 | DEMONSTRATE IMPORTANCE OF REGULAR PRACTICE; COMPARE RESULTS OF ANOTHER WHO HAS PRACTICED. |
| 0206320006 | THE CHILD WILL DEMONSTRATE THAT LEARNING CAN LEAD TO AN AUTOMATIC COMPLETE THE ACT TO DECREASE WITH PRACTICE. |
| 0206320007 | KNOW THAT DEVELOPMENT OF A HABIT REQUIRES PRACTICE. |
| 0206320008 | THE CHILD WILL DESCRIBE THAT REGULAR PRACTICE HELPS IN FORMING A |
| 0206320009 | KNOW THAT LEARNING IS IMPROVED BY THE DEVELOPMENT OF EFFICIENT |
| 0206320010 | KNOW THAT GOOD STUDY HABITS REQUIRE THE PROPER TOOLS, EQUIPMENT, |
| 0206320011 | KNOW THAT DEVELOPMENT OF A HABIT REQUIRES THE PROPER CONDITIONS |
| 0206320012 | INFER THAT DEVELOPMENT OF GOOD STUDY HABITS RESULTS IN MORE EFFICI |
| 0206320013 | THE CHILD WILL DESCRIBE THAT HE CANNOT PREVENT THIS REFLEX JY |
| 0206335 | HUMAN BODY (DIET) |
| 0206335001 | MATCH ESSENTIAL NUTRIENT WITH THE FOOD WHICH CAN PROVIDE MAJOR AMOUN |
| 0206335002 | KNOW THAT HARMFUL BACTERIA IN MILK ARE DESTROYED BY PASTEURIZAT |

HYPOTHESIS, INDICATING WHETHER OR NOT THE TIME TO COMPLETE THE ACT WILL
PRACTICE.

REGULAR PRACTICE: COMPARE RESULTS OF WRITING NAME WITH OPPOSITE HAND AGAINST

THAT LEARNING CAN LEAD TO AN AUTOMATIC ACT (TYING OF A BOW KNOT), CAUSING THE TIME TO
DECREASE WITH PRACTICE.

HABIT REQUIRES PRACTICE.

REGULAR PRACTICE HELPS IN FORMING A NEW HABIT.

IMPROVED BY THE DEVELOPMENT OF EFFICIENT HABITS OF STUDY.

STUDY REQUIRE THE PROPER TOOLS, EQUIPMENT, AND SURROUNDINGS.

HABIT REQUIRES THE PROPER CONDITIONS AND SURROUNDINGS.

GOOD STUDY HABITS RESULTS IN MORE EFFICIENT LEARNING.

HE CANNOT PREVENT THIS REFLEX BY THINKING ABOUT IT.

THE FOOD WHICH CAN PROVIDE MAJOR AMOUNT OF THAT NUTRIENT.

NUTRIENTS IN MILK ARE DESTROYED BY PASTEURIZATION.

0206340

HUMAN BODY (DIGESTIVE)

0206340001

DEMONSTRATE ACTION OF ENZYME: MIX STARCH IN TWO TUBES, ADD DIASTASE. ONE TURNS YELLOW-ORANGE.

0206340002

DEMONSTRATE ACTION OF BACTERIA IN STOMACH-USING FOOD-GELATIN. A ONE, WATER TO OTHER, DETERMINE GROWTH.

0206345

HUMAN BODY (DISEASE)

0206345001

KNOW THAT CERTAIN CELLS SECRETE SUBSTANCES THAT PROVIDE AN ENVIRONMENT

0206345002

INVESTIGATE THE FUNCTION OF EPITHELIAL CELLS THAT LINE THE BODY CAVITY

0206345003

KNOW THAT ANTIBIOTICS CHANGE THE ENVIRONMENT OF CERTAIN TYPES OF MICROORGANISMS SURVIVAL.

0206345004

KNOW THAT THE FAVORABLE ENVIRONMENT FOR A VIRUS IS WITHIN THE CELL

0206345005

KNOW THAT ONLY ANTIBODIES GIVE IMMUNITY.

0206345006

THE CHILD WILL DESCRIBE THAT HIS STOMACH CELLS MAKE A JUICE WHICH THIS COULD HELP REDUCE THE GROWTH OF BACTERIA.

0206345007

THE CHILD WILL DESCRIBE THAT ANTISEPTICS REDUCE THE GROWTH OF BACTERIA

0206345008

DEMONSTRATE PURIFYING WATER WITH CHEMICALS BY OBSERVING MICROORGANISMS BLEACH TO THE SLIDE, KILLING THE ORGANISMS.

0206345009

IDENTIFY SOURCES OF INFORMATION TO ANSWER FOUR QUESTIONS ABOUT KEEPING

0206345010

GIVEN SENTENCE DESCRIBING SOME ACTIVITIES OF A HARMFUL TO MAN. MICROORGANISM

0206345011

KNOW THAT THE BODY, BY REFLEX ACTS, EXPELS BACTERIA AND OTHER IRRITANTS

MIX STARCH IN TWO TUBES, ADD DIASTASE TO ONE, TEST BOTH WITH BENEDICT'S SOLUTION.

IA IN STOMACH-USING FOOD- GELATIN. ADD TEN DROPS OF WEAK HYDROCHLORIC ACID TO
NE GROWTH.

ETE SUBSTANCES THAT PROVIDE AN ENVIRONMENT UNFAVORABLE TO BACTERIA.

EPITHELIAL CELLS THAT LINE THE BODY CAVITIES.

THE ENVIRONMENT OF CERTAIN TYPES OF MICROORGANISMS, MAKING IT UNFAVORABLE TO THEIR

RONMENT FOR A VIRUS IS. WITHIN THE BODY CELLS.

VE IMMUNITY.

HIS STOMACH CELLS MAKE A JUICE WHICH CONTAINS WEAK HYDROCHLORIC ACID, AND THAT
GROWTH OF BACTERIA.

ANTISEPTICS REDUCE THE GROWTH OF BACTERIA.

WITH CHEMICALS BY OBSERVING MICROORGANISMS WITH A MICROSCOPE, WHILE ADDING CHLORINE
TO THE ORGANISMS.

ION TO ANSWER FOUR QUESTIONS ABOUT KEEPING WATER AND FOOD FREE FROM BACTERIA.

ONE ACTIVITIES OF A MICROORGANISM, TELL WHETHER ACTIVITIES ARE HELPFUL OR

EX ACTS, EXPELS BACTERIA AND OTHER IRRITANTS.

- 0206345012 KNOW THAT THE WHITE BLOOD CELLS ARE ONE OF THE BODY'S DEFENSES AG
- 0206345013 NAME BODY'S LINES OF DEFENSE, WHICH HELP IN RESISTING AND/OR COMB
- 0206345014 FIND THAT MOST GERMS DO NOT GROW WHEN AN ANTISEPTIC IS USED.
- 0206345015 DEMONSTRATE ANTISEPTICS USING FOOD-GELATIN, ADD DROPS OF DIFFERENT A WATER TO ONE AS A CONTROL, EXPOSED DISHES AND DETERMINE GROWTH.
- 0206345016 KNOW THAT SOME DISEASES CAUSE THE BODY TO BUILD IMMUNITY.
- 0206345017 TELL DIFFERENCE BETWEEN STRUCTURES AND FUNCTIONS OF FOUR GENERAL GRO FUNGUS, BACTERIA AND PROTOZOA.
- 0206345018 GIVEN EXAMPLES OF COMMON (HOUSEHOLD OR PROFESSIONAL) MEDICAL PRA ANTIBIOTICS ARE BEING USED TO COMBAT INFECTIOUS BACTERIA.
- 0206345019 DESCRIBE HOW WATER AND FOOD ARE KEPT FREE FROM BACTERIA.
- 0206345020 WHEN GIVEN LIST OF SCIENTISTS (LOUIS PASTEUR, EDWARD JENNER, JOS ROBERT KOCH) AND THEIR SCIENTIFIC DISCOVERIES, MATCH EACH SCIENT
- 0206345021 TELL DIFFERENCE BETWEEN DEFINITIONS OF FOLLOWING TYPES OF DISEASES
- 0206345022 GIVEN DESCRIPTION OF A PARTICULAR DISEASE AND THE WAY IT IS CONTRACT NONCOMMUNICABLE.
- 0206345023 IDENTIFY WAYS IN WHICH SPECIFIC DISEASE CAUSING ORGANISMS E ENTRY WITH AIR AND THROUGH SKIN).
- 0206345024 IDENTIFY THE MOST EFFECTIVE METHODS USED TO PREVENT THE SPREAD OF D

ONE OF THE BODY'S DEFENSES AGAINST INFECTION.

HELP IN RESISTING AND/OR COMBATING DISEASE-CAUSING MICROORGANISMS.

WHEN AN ANTISEPTIC IS USED.

-GELATIN, ADD DROPS OF DIFFERENT ANTISEPTICS TO DIFFERENT DISHES, AND BOILED DISHES AND DETERMINE GROWTH.

BODY TO BUILD IMMUNITY.

AND FUNCTIONS OF FOUR GENERAL GROUPS OF DISEASE-CAUSING MICROORGANISMS, VIRUS,

OR PROFESSIONAL) MEDICAL PRACTICES, TELL WHETHER CHEMICALS, HEAT, OR AT INFECTIOUS BACTERIA:

PT FREE FROM BACTERIA.

IS PASTEUR, EDWARD JENNER, JOSEPH LISTER, JONAS SALK, ALEXANDER FLEMING, DISCOVERIES, MATCH EACH SCIENTIST WITH HIS DISCOVERY.

S OF FOLLOWING TYPES OF DISEASES: ORGANIC, ALLERGIC, INFECTIOUS, DEFICIENCY.

DISEASE AND THE WAY IT IS CONTRACTED, CLASSIFY DISEASE AS COMMUNICABLE OR

SEASE CAUSING ORGANISMS ENTER THE BODY (ENTRY WITH WATER, MILK, FOOD;

S USED TO PREVENT THE SPREAD OF DISEASE.

- 0206370 HUMAN BODY (HEALTH CONDITIONS)
- 0206370001 FROM LIST OF STATEMENTS, IDENTIFY THOSE WHICH DESCRIBE STORY ABOUT HEALTH PROBLEMS IN UNDERDEVELOPED NATION.
- 0206375 HUMAN BODY (HEALTH AND SAFETY)
- 0206375001 LIST SEVEN EXAMPLES OF GOOD HEALTH AND SAFETY RESPONSIBLE FOR EACH ITEM LISTED.
- 0206390 HUMAN BODY (NERVOUS)
- 0206390001 IDENTIFY THE LOCATIONS AND FUNCTIONS OF MAJOR PARTS OF MEDULLA) AND SPINAL CORD.
- 0206405 HUMAN BODY (REFLEX)
- 0206405001 DEMONSTRATE A REFLEX ACTION BY HOLDING CELLOPHANE IN A BALL OF PAPER GENTLY AGAINST IT.
- 0206405002 DEMONSTRATE A SIMPLE REFLEX, BY BITTING WITH LEGS BELOW THE KNEE WITH THE EDGE OF THE PALM.
- 0206415 HUMAN BODY (SKELETAL)
- 0206415001 IN DIAGRAM OF HUMAN SKELETON, LOCATE SKULL, RIB CASE, PHALANGES.
- 0206415002 GIVEN DIAGRAM OF SKELETON, LOCATE FOUR KINDS OF JOINTS.
- 0206420 HUMAN BODY (SKIN, HAIR, TEETH, NAILS)
- 0206420001 INVESTIGATE THE PROTECTIVE FUNCTIONS OF THE EPITHELIUM.

NS)
IDENTIFY THOSE WHICH DESCRIBE HEALTH CONDITIONS IN AN UNDERDEVELOPED NATION. TELL A
IN UNDERDEVELOPED NATION.

HEALTH CONDITIONS IN AN UNDERDEVELOPED NATION. TELL A

TY)
HEALTH AND SAFETY
LISTED.

PRECAUTIONS AND EXPLAIN WHY YOU SHOULD OR SHOULD NOT BE

FUNCTIONS OF MAJOR PARTS OF

CENTRAL NERVOUS SYSTEM. BRAIN (CEREBELLUM, CEREBRUM,

N BY HOLDING CELLOPHANE IN
IN FRONT OF IT.

FRONT OF HIS EYES AND ALLOWING ANOTHER STUDENT TO THROW

X, BY SITTING WITH LEGS
OF THE PALM.

HANGING LOOSELY, ALLOWING ANOTHER CHILD TO TAP HIM JUST

ON, LOCATE SKULL, RIB CAGE,

BACKBONE, PELVIS, FEMUR, TIBIA, FIBULA, RADIUS, ULNA,

LOCATE FOUR KINDS OF JOINTS.

HINGE, BALL-AND-SOCKET, IMMOVABLE, AND PIVOT JOINTS.

ETH, NAILS)

FUNCTIONS OF THE EPITHELIAL CELLS THAT COVER OUTER BODY SURFACES.

0206425 HUMAN BODY (SYSTEMS)

0206425001 MATCH SYSTEMS OF HUMAN BODY (DIGESTIVE, CIRCULATORY, RESP
SKELETAL, MUSCULAR, AND SKIN) WITH IMPORTANT GENERAL FUNC

0206440 HUMAN BODY (WATER)

0206440001 KNOW THAT BACTERIA MAY BE CHEMICALLY REMOVED FROM WATER TO M

0206440002 KNOW THAT MANY HARMFUL BACTERIA AND UNDESIRABLE SOLIDS ARE

0206445 INSECTS

0206445001 DEMONSTRATE COLLECTION OF FRUIT FLIES IN WARM SEASON. ATTR

COTTON OR CLOTH.

0206445002 DESCRIBE DIFFERENT CHARACTERISTICS OF FRUIT FLIES. USE MAGN

0206450 INTERDEPENDENCE

0206450001 KNOW THAT LIVING THINGS ARE INTERDEPENDENT.

0206450002 KNOW THAT LIVING THINGS ARE INTERDEPENDENT WITH ONE ANOT

0206450003 KNOW THAT IN ATTEMPTS TO UNDERSTAND THE WORLD IN WHICH HE L

THAT LIVING THINGS ARE INTERDEPENDENT WITH ONE ANOTHER AND

0206455 LIGHT

0206455001 RECOGNIZE WHICH ONE OF THE THREE MOST COMMON THEORIES ABOU

THE WAY LIGHT TRAVELS.

DIGESTIVE, CIRCULATORY,
WITH IMPORTANT GENERAL

RESPIRATORY, NERVOUS, REPRODUCTIVE, GLAND, EXCRETORY,
FUNCTIONS OF EACH.

CHEMICALLY REMOVED FROM WATER TO MAKE IT SUITABLE FOR DRINKING.

DIRTY AND UNDESIRABLE SOLIDS ARE REMOVED FROM WATER BY FILTRATION.

FRUIT FLIES IN WARM SEASON. ATTRACT WITH RAW OR COOKED FRUIT IN JAR. CLOSE JAR WITH

CHARACTERISTICS OF FRUIT FLIES. USE MAGNIFYING GLASS.

INTERDEPENDENT.

INTERDEPENDENT WITH ONE ANOTHER AND WITH THEIR ENVIRONMENT.

TO UNDERSTAND THE WORLD IN WHICH HE LIVES, MAN HAS DEVELOPED THE LARGE CONCEPTUAL SCHEME
INTERDEPENDENT WITH ONE ANOTHER AND THE ENVIRONMENT.

THREE MOST COMMON THEORIES ABOUT THE NATURE OF LIGHT IS DEMONSTRATED IN EXAMPLES OF

0206455002 TELL HOW LIGHT AND THE PARTS OF YOUR EYE INTERACT TO PRO

0206455003 WHEN YOU ARE GIVEN INFORMATION ABOUT THE ROUGHNESS OR SMO
REFLECT LIGHT IN A SCATTERED WAY AND WHICH WILL REFLECT IT

0206455004 RECOGNIZE WHETHER SUBSTANCES OR OBJECTS WITH DIFFERENT SUR
LIGHT WHICH FALLS ON THEM OR WILL ABSORB IT.

0206455005 TELL WHETHER OBJECTS ARE TRANSPARENT, TRANSLUCENT, OR OPA

0206455006 PREDICT ANGLE AT WHICH LIGHT WILL BE REFLECTED FROM A SUR
THAT SURFACE.

0206455007 RECOGNIZE DIAGRAMS THAT CORRECTLY ILLUSTRATE HOW WHITE LIG
CONCAVE AND CONVEX LENSES, (2) THROUGH PRISMS, AND (3) THRO

0206455008 PREDICT THE KINDS OF IMAGES THAT WILL BE MADE BY CONVEX LENS

0206460 MACHINES

0206460001 KNOW THAT THE AMOUNT OF ENERGY GOTTEN OUT OF A MACHINE DOE

0206460002 KNOW THAT MACHINES MAY MULTIPLY FORCE, INCREASE SPEED, OR

0206460003 VERIFY THE CONCEPT BY INVESTIGATING A DIFFERENT MACHINE.

0206465 MACHINES (COMPOUND)

0206465001 KNOW THAT MOST COMPOUND MACHINES ARE MODIFICATIONS OR COM

0206465002 KNOW THAT COMPOUND MACHINES MULTIPLY THE FORCES OF THE SIM

OF YOUR EYE INTERACT TO PRODUCE AN IMAGE.

ON ABOUT THE ROUGHNESS OR SMOOTHNESS OF SOME OBJECTS, RECOGNIZE WHICH ONES WILL
WAY AND WHICH WILL REFLECT IT IN A REGULAR WAY,

OR OBJECTS WITH DIFFERENT SURFACE TEXTURES AND COLORS WILL REFLECT MOST OF THE
WILL ABSORB IT.

TRANSPARENT, TRANSLUCENT, OR OPAQUE.

WILL BE REFLECTED FROM A SURFACE WHEN GIVEN THE ANGLE AT WHICH THAT LIGHT STRIKES

ECTLY ILLUSTRATE HOW WHITE LIGHT IS BENT (REFRACTED) AS IT PASSES (1) THROUGH
(2) THROUGH PRISMS, AND (3) THROUGH WATER.

THAT WILL BE MADE BY CONVEX LENSES AND THE TYPES MADE BY CONCAVE LENSES,

ENERGY GOTTEN OUT OF A MACHINE DOES NOT EXCEED THE ENERGY PUT INTO IT.

APPLY FORCE, INCREASE SPEED, OR CHANGE DIRECTION,

INVESTIGATING A DIFFERENT MACHINE.

MACHINES ARE MODIFICATIONS OR COMBINATIONS OF A FEW SIMPLE MACHINES.

BY THE FORCES OF THE SIMPLE MACHINES OF WHICH THEY

- 0206465003 KNOW THAT BOTH PHYSICAL AND CHEMICAL CHANGES OCCUR IN STEAM
- 0206465004 KNOW THAT INTERNAL COMBUSTION ENGINES TRANSFER THE FORCE
- 0206470 MACHINES (SIMPLE)
- 0206470001 KNOW THAT A SIMPLE MACHINE MULTIPLIES EFFORT BUT DOES NOT INC
- 0206470002 KNOW THAT A SCREW IS A WINDING INCLINED PLANE,
- 0206470003 DEMONSTRATE IT IS EASIER TURNING A SCREW INTO WOOD THAN PUSHING
ATTEMPTING TO PUSH IT THE REST OF THE WAY.
- 0206470004 CONSTRUCT A WINDING INCLINED PLANE. CUT INCLINED PLANE 12 INCH
WILL RISE 1/2 INCH PER TURN AND TAKE 11 TURNS.
- 0206470005 DESCRIBE THAT TURNING THE SCREW INTO WOOD IS SIMILAR TO USING A
- 0206470006 KNOW THAT WEDGES ARE MOVABLE INCLINED PLANES FOR OVERCOM
- 0206470007 DEMONSTRATE AN INCLINED PLANE MAKES A JOB EASIER BY PULLING
BOARD, CAUSING THE AMOUNT TO READ LESS THAN BY LIFTING THE SKA
- 0206470008 KNOW THAT THE EFFORT NEEDED TO RAISE A WEIGHT A GIVEN DISTANC
IS INCREASED.
- 0206470009 KNOW THAT A LEVER IS A SIMPLE MACHINE THAT CONCENTRATES THE EFF
LEVER USUALLY MULTIPLIES FORCE.
- 0206470010 KNOW THAT THE EFFORT NEEDED TO RAISE A WEIGHT WITH A LEVER
THE EFFORT FROM THE FULCRUM.
- 0206470011 KNOW THAT MOVING THE FULCRUM IN RELATION TO LOAD AND EFFORT
APPLIED TO LIFT A LOAD.

CHEMICAL CHANGES OCCUR IN STEAM AND INTERNAL COMBUSTION ENGINES.

ENGINES TRANSFER THE FORCE OF KINETIC ENERGY DIRECTLY TO MACHINES.

AMPLIFIES EFFORT BUT DOES NOT INCREASE WORK.

INCLINED PLANE.

DRIVING A SCREW INTO WOOD IS SIMILAR TO PUSHING IT BY PARTIALLY TURNING IT INTO WOOD THEN
OF THE WAY.

CUT INCLINED PLANE 12 INCHES BY 6 INCHES AND WIND IT AROUND A PENCIL. IT
TAKE 11 TURNS.

DRIVING INTO WOOD IS SIMILAR TO USING AN INCLINED PLANE USING LESS EFFORT FORCE.

INCLINED PLANES FOR OVERCOMING GREAT RESISTANCES.

MAKES A JOB EASIER BY PULLING A SKATE WITH A SPRING BALANCE UP A SLANTED
REQUIRES LESS EFFORT THAN BY LIFTING THE SKATE ALONE.

TO RAISE A WEIGHT A GIVEN DISTANCE DECREASES AS THE LENGTH OF AN INCLINED PLANE

A MACHINE THAT CONCENTRATES THE EFFORT FORCE AND THE LOAD, EACH AT ONE POINT, A

TO RAISE A WEIGHT WITH A LEVER DEPENDS ON THE RELATIVE DISTANCES OF THE LOAD AND

TO RAISE A WEIGHT WITH A LEVER DEPENDS ON THE RELATIVE DISTANCES OF THE LOAD AND
EFFORT INCREASES OR DECREASES THE EFFORT THAT MUST BE

- 0206470012 KNOW THAT THE LONGER THE EFFORT ARM, THE MORE A FORCE IS MULTIPL
- 0206470013 DEMONSTRATE LOCATION OF FULCRUM AFFECTING EFFORT FORCE USING A CLOSE TO EFFORT, CAUSING GREATER EFFORT FORCE AS FULCRUM IS CLOSE
- 0206470014 DEMONSTRATE A LEVER MAKES A JOB EASIER BY USING A RULER TO HOLD DOWN THE OTHER END CAUSING IT TO READ LESS THAN WITH THE BALANCE
- 0206470015 DESCRIBE THAT THE LEVER IS A FORCE MULTIPLIER SINCE IT ALLOWS
- 0206470016 KNOW THAT A FIXED PULLEY CHANGES THE DIRECTION OF A FORCE;
- 0206470017 KNOW THAT A FIXED PULLEY CHANGES THE DIRECTION OF THE EFFORT
- 0206470018 DEMONSTRATE A FIXED PULLEY CHANGES DIRECTION OF FORCE REQUIRED FIXED PULLY. COMPARING DIRECTION WITH AND WITHOUT PULLEY.
- 0206470019 DEMONSTRATE A MOVABLE PULLEY REDUCES EFFORT IN COMPARISON A FIXED AND MOVABLE PULLEY CAUSING LESS EFFORT WITH MOVABLE
- 0206470020 KNOW THAT PULLEY SYSTEMS BOTH CHANGE THE DIRECTION OF A FORCE AND
- 0206470021 TEST UNDERSTANDING OF PULLEYS BY CONSIDERING SEVERAL SITUATIONS
- 0206470022 KNOW THAT A BLOCK AND TACKLE PULLEY SYSTEM MULTIPLIES THE FORCE
- 0206470023 DEMONSTRATE A BLOCK AND TACKLE CAN INCREASE THE TIMES A FORCE IS TAKLE USING FIXED AND MOVABLE PULLEYS PROVING FORCE IS INCREASE
- 0206470024 DESCRIBE THE POINT OF EFFORT FORCE IS MULTIPLIED IS INCREASE SUPPORT THE MOVABLE PULLEY BLOCK.
- 0206470025 DEMONSTRATE USING TWO DOUBLE BLOCKS IN A BLOCK AND TACKLE M BOTH SYSTEMS. COMPARE EFFORT.

SHORT ARM; THE MORE A FORCE IS MULTIPLIED.

FULCRUM AFFECTING EFFORT FORCE USING A SPRING BALANCE TO MEASURE FORCE WHEN FULCRUM IS
CLOSER TO LOAD.
LARGER EFFORT FORCE AS FULCRUM IS CLOSER TO LOAD.

JOB EASIER BY USING A RULER TO HOLD A BOOK WHILE A SPRING BALANCE IS USED TO PULL
IT TO READ LESS THAN WITH THE BALANCE ALONE.

FORCE MULTIPLIER SINCE IT ALLOWS FOR LESS FORCE NEEDED TO LIFT AN OBJECT.

CHANGES THE DIRECTION OF A FORCE; IT DOES NOT MULTIPLY THE FORCE.

CHANGES THE DIRECTION OF THE EFFORT FORCE; A MOVABLE PULLEY DOUBLES THE FORCE.

CHANGES DIRECTION OF FORCE REQUIRED TO LIFT A LOAD, BY LIFTING A BRICK USING A
DIRECTION WITH AND WITHOUT PULLEY.

REDUCES EFFORT IN COMPARISON WITH A FIXED PULLEY BY LIFTING A BRICK USING
CAUSING LESS EFFORT WITH MOVABLE PULLEY.

DOES NOT CHANGE THE DIRECTION OF A FORCE AND MULTIPLY IT.

EXPLAINS BY CONSIDERING SEVERAL SITUATIONS IN WHICH THEY MAY BE USED.

A PULLEY SYSTEM MULTIPLIES THE FORCE BY THE NUMBER OF ROPES THAT SUPPORT THE LOAD.

HOW MANY BLOCKS CAN INCREASE THE TIMES A FORCE IS MULTIPLIED - WEIGH LOAD, LIFT WITH BLOCK AND
NUMBER OF PULLEYS PROVING FORCE IS INCREASED.

EFFORT FORCE IS MULTIPLIED IS INCREASED WITH AN INCREASE IN THE NUMBER OF STRINGS THAT
LIFT WITH BLOCK.

HOW MANY BLOCKS IN A BLOCK AND TACKLE MULTIPLY FORCE MORE THAN TWO SINGLE BLOCKS. USE
EFFORT.

- 0206470026 KNOW THAT ONE USE OF THE WHEEL AND AXLE IS TO INCREASE SPEED.
- 0206470027 KNOW THAT A WHEEL AND AXLE MULTIPLIES FORCE WHEN IT IS APPLIED TO THE AXLE.
- 0206470028 KNOW THAT GEARS MULTIPLY FORCE OR INCREASE SPEED AS THE WHEEL AND AXLE FORCE.
- 0206470029 DEMONSTRATE FRICTION RESISTS MOTION BY PULLING WOOD ACROSS THREE OILED SURFACE, COMPARING WITH SPRING BALANCE WHICH REQUIRES GREATER FORCE.
- 0206470030 DEMONSTRATE WORK LIFTING A SKATE TO THE TOP OF A PILE OF BOOKS IS EQUAL TO EQUAL HEIGHT BY READING A SPRING BALANCE AND APPLYING THE WORK RULE.
- 0206470031 MATCH EXAMPLES OF INCLINED PLANE, FIXED PULLEY, WHEEL AND AXLE, LEVER. THEY MAKE WORK EASIER.
- 0206470032 WHEN GIVEN DRAWINGS OF LEVERS, RECOGNIZE THE FULCRUM, THE LOAD, AND THE EFFORT.
- 0206470033 DEMONSTRATE DIFFERENCE BETWEEN VALUE OF A FIXED PULLEY AND VALUE OF A Movable PULLEY.
- 0206470034 DEMONSTRATE RELATIONSHIPS BETWEEN EFFORT APPLIED AND AMOUNT OF WORK DONE BY SIMPLE MACHINES.
- 0206480 MAGNETS
- 0206480001 DEMONSTRATE DIFFERENCE BETWEEN MAGNETIC MATERIALS WHICH ARE PERMANENT AND SOFT.
- 0206480002 GIVEN DIAGRAM OR DRAWING OF A MAGNETIC FIELD, LOCATE THE STRONGEST AND WEAKEST PART OF THE FIELD.
- 0206480003 TELL THE DIFFERENCE BETWEEN THE NORTH GEOGRAPHIC POLE AND THE NORTH MAGNETIC POLE.

AND AXLE IS TO INCREASE SPEED.

APPLIES FORCE WHEN IT IS APPLIED TO THE WHEEL, AND INCREASES SPEED WHEN IT IS

OR INCREASE SPEED AS THE WHEEL AND AXLE DOES, AND CHANGE THE DIRECTION OF THE

ION BY PULLING WOOD ACROSS THREE DIFFERENT SURFACES-TABLE TOP, SAND PAPER,
RING BALANCE WHICH REQUIRES GREATEST EFFORT.

TO THE TOP OF A PILE OF BOOKS IS EQUAL TO WORK PULLING IT UP AN INCLINED PLANE
RING BALANCE AND APPLYING THE WORK RULE.

FIXED PULLEY, WHEEL AND AXLE, LEVEL, WEDGE, AND SCREW WITH WAYS IN WHICH

RECOGNIZE THE FULCRUM, THE LOAD, AND THE BEST POINT TO APPLY EFFORT.

VALUE OF A FIXED PULLEY AND VALUE OF A BLOCK AND TACKLE AS SIMPLE MACHINES.

EFFORT APPLIED AND AMOUNT OF WORK DONE IN EXPERIMENTAL SITUATIONS USING

MAGNETIC MATERIALS WHICH ARE PERMANENT AND THOSE WHICH ARE TEMPORARY.

MAGNETIC FIELD, LOCATE THE STRONGEST AND WEAKEST LINES OF FORCE IN THE MAGNETIC

NORTH GEOGRAPHIC POLE AND THE NORTH MAGNETIC POLE.

0206490 METALS

0206490001 KNOW THAT THE CONCEPTS OF THE BEHAVIOR OF MATTER HAD TO BE UNDER

0206490002 KNOW THAT METALS CAN BE SEPARATED FROM THEIR COMPOUNDS; THEY CAN
PROPERTIES.

0206490003 KNOW THAT HEAT IS A SOURCE OF ENERGY FOR EXTRACTING COPPER F

0206490004 KNOW THAT HEAT IS A SOURCE OF ENERGY FOR EXTRACTING IRON FROM ITS

0206490005 KNOW THAT METALS WITH NEW PROPERTIES CAN BE OBTAINED IF TWO OR M
MELTED TOGETHER AND COOLED.

0206490006 KNOW THAT ALLOYS PROVIDE US WITH SUBSTANCES WITH ADVANTAG

0206490007 KNOW THAT ALUMINUM HAS MANY USES.

0206510 PLANTS (ADAPTATION)

0206510001 DESCRIBE THAT PLANTS FROM POTATO HAD SAME HEREDITY BUT DID NOT

0206515 PLANTS (BACTERIA)

0206515001 KNOW THAT BACTERIA CAN BE CLASSIFIED, OR GROUPED BY THEIR ST

0206515002 INFER, FROM INVESTIGATION, THAT HEAT AND ABSENCE OF LIGHT IN
MOST BACTERIA.

0206515003 APPLY UNDERSTANDING OF THE NEEDS OF BACTERIA TO METHODS OF FOOD

0206515004 KNOW THAT BACTERIA CAN BE CLASSIFIED AS HELPFUL OR HARMFUL

THE BEHAVIOR OF MATTER HAD TO BE UNDERSTOOD BEFORE METALS COULD BE USED WIDELY.
SEPARATED FROM THEIR COMPOUNDS; THEY CAN BE COMBINED TO OBTAIN NEW COMPOUNDS HAVING NEW
USES OF ENERGY FOR EXTRACTING COPPER FROM ITS ORES.

OF ENERGY FOR EXTRACTING IRON FROM ITS ORE.

PROPERTIES CAN BE OBTAINED IF TWO OR MORE ELEMENTS, AT LEAST ONE OF THEM A METAL, ARE
COMBINED WITH SUBSTANCES WITH ADVANTAGEOUS PROPERTIES.
USES.

POTATO HAD SAME HEREDITY BUT DID NOT DEVELOP ALIKE DUE TO ENVIRONMENT.

CLASSIFIED, OR GROUPED BY THEIR STRUCTURE.

THAT HEAT AND ABSENCE OF LIGHT IN THE ENVIRONMENT ARE ESSENTIAL FOR GROWTH OF
NEEDS OF BACTERIA TO METHODS OF FOOD PRESERVATION.

CLASSIFIED AS HELPFUL OR HARMFUL TO MAN.

| | | |
|------------|---|-------------------------|
| 0206515005 | KNOW THAT THE GROWTH OF LARGE NUMBERS OF BACTERIA OR HEALTH. | TOXICITY OF |
| 0206515006 | KNOW THAT BACTERIA OBTAIN FOOD FROM CHANGING COMPLEX | SUBSTANCES |
| 0206515007 | CHILD WILL DEMONSTRATE GROWTH OF BACTERIA USING P-TRI REFRIGERATOR AND OTHER IN A WARM DARK PLACE, THEN | DISHES, EXP COMPARE GRO |
| 0206515008 | DEMONSTRATE CULTURE OF MICROORGANISMS, BY ADDING HARD- FOR SEVERAL DAYS UNTIL CULTURE IS SWARMING WITH | BOILED EGG BACTERIA. |
| 0206515009 | GIVEN DRAWINGS OR DESCRIPTIONS OF THREE TYPES OF CORRECTLY. | BACTERIA (C |
| | | |
| 0206520 | PLANTS (BACTERIA AND MOLD) | |
| 0206520001 | KNOW THAT BACTERIA AND MOLD ARE CLASSIFIED AS PLANTS BY | THEIR STRUC |
| 0206520002 | KNOW THAT BACTERIA AND MOLDS CHEMICALLY BREAK DOWN THROUGH A MEMBRANE. | COMPLEX FOO |
| | | |
| 0206545 | PLANTS (GROWTH) | |
| 0206545001 | DEMONSTRATE EFFECT OF ENVIRONMENT ON LIVING THINGS OF FOOD, WATER, LIGHT, AND ARRANGE IN FOUR DIFFERENT | SAME HEREDI COMBINATION |
| | | |
| 0206550 | PLANTS (HYBRIDS) | |
| 0206550001 | DEMONSTRATE CROSS-POLLINATION OF PETUNIAS. REMOVE TRANSFER POLLEN TO IT FROM RED FLOWER. PRODUCE PINK- | STAMENS FRO WHITE FLOWE |

NUMBERS OF BACTERIA OR

TOXICITY OF SUBSTANCES FORMED MAY BE DANGEROUS TO

FROM CHANGING COMPLEX

SUBSTANCES INTO SIMPLER ONES.

OF BACTERIA USING PETRI
DISHES, EXPOSE THE PREPARED DISHES, PLACING ONE IN
DARK PLACE, THEN COMPARE GROWTH.

DISHES, EXPOSE THE PREPARED DISHES, PLACING ONE IN
DARK PLACE, THEN COMPARE GROWTH.

BACTERIA, BY ADDING HARD-
BOILED EGG YOLK TO JAR OF POND WATER, KEEPING IT WARM
IS SWARMING WITH BACTERIA.

BOILED EGG YOLK TO JAR OF POND WATER, KEEPING IT WARM
BACTERIA.

OF THREE TYPES OF

BACTERIA (COCCUS, BACILLUS, AND SPIRILLUM), LABEL

CLASSIFIED AS PLANTS BY THEIR STRUCTURE.

CHEMICALLY BREAK DOWN

COMPLEX FOODS INTO SIMPLE SUBSTANCES THAT CAN PASS

EXPERIMENT ON LIVING THINGS OF
DIFFERENT KINDS IN FOUR DIFFERENT

SAME HEREDITY. GROW PLANTS FROM POTATO EYES; CONTROL
COMBINATIONS.

OF PETUNIAS. REMOVE
FLOWER. PRODUCE PINK-

STAMENS FROM COVERED WHITE BUD. LET FLOWER MATURE;
WHITE FLOWER FROM IT.

- 0206555 PLANTS (MOLDS)
- 0206555001 DEMONSTRATE GROWTH OF MOLD. USE TWO PIECES OF DRY BREAD, PLACE; MOLD WILL GROW ON MOIST PIECE.
- 0206555002 THE CHILD WILL DESCRIBE THE MOLD WHICH GROWS BY OBSERVING OF THREADS, BLACK BALL AT ONE END, AND ROOT-LIKE PARTS.
- 0206565 PLANTS (NONGREEN)
- 0206565001 KNOW THAT NONGREEN PLANTS ARE INTERDEPENDENT WITH OTHER ORGANISMS UNDER CONDITIONS FAVORABLE TO SURVIVAL.
- 0206565002 KNOW THAT BACTERIA, PLANTS WITHOUT CHLOROPHYLL, DEPEND ON OTHER ORGANISMS FOR NUTRITION.
- 0206565003 KNOW NONGREEN PLANTS GROW AND REPRODUCE RAPIDLY IN A FAVORABLE ENVIRONMENT.
- 0206585 PLANTS (TREES)
- 0206585001 DEMONSTRATE TREE GRAFTING IN EARLY SPRING. PREPARE AND GRAFT 2 CLOTH AND WAX.
- 0206610 REPRODUCTION
- 0206610001 KNOW THAT SOME PLANTS CAN REPRODUCE NEW PLANTS FROM A PART OF AN EXISTING PLANT.
- 0206610002 KNOW THAT AN EMBRYO CONTAINS THE BEGINNING OF A NEW ORGANISM.
- 0206620 SCIENTIFIC METHOD
- 0206620001 KNOW THAT ACHIEVEMENT OF A GOAL INVOLVES INSIGHT AND REQUIRES PERSISTENCE.

USE TWO PIECES OF DRY BREAD, MOISTEN ONE, PLACE EACH IN A SEALED JAR IN DARK
MOIST PIECE.

THE MOLD WHICH GROWS BY OBSERVING WITH A MICROSCOPE AND NOTING CHARACTERISTICS
ONE END, AND ROOT-LIKE PARTS.

ARE INTERDEPENDENT WITH OTHER ORGANISMS FOR THEIR FOOD AND WITH THEIR ENVIRONMENT FOR
SURVIVAL.

S WITHOUT CHLOROPHYLL, DEPEND ON OTHER ORGANISMS FOR THEIR FOOD.

AND REPRODUCE RAPIDLY IN A FAVORABLE ENVIRONMENT.

IN EARLY SPRING. PREPARE AND GRAFT 2 RELATED FRUIT TREE BRANCHES, COVER GRAFT WITH

REPRODUCE NEW PLANTS FROM A PART OF THEMSELVES.

AINS THE BEGINNING OF A NEW ORGANISM.

INVOLVES INSIGHT AND REQUIRES MAKING OF DEFINITE PLANS.

0206620002 KNOW THAT DISCOVERY OF NEW PROCESSES AND PRODUCTS DEPENDS ON
EARLIER TECHNOLOGICAL ADVANCES.

0206620003 KNOW THAT INVENTION OF NEW MATERIALS DEPENDS ON UNDERSTAND

0206620004 KNOW THAT A CONCEPT IS ARRIVED AT ONLY AFTER CAREFUL AND EXTENSIVE

0206620005 RECOGNIZE THAT THE HABIT OF SEEKING RELATIONSHIPS BETWEEN CO

0206620006 GAIN FURTHER INSIGHT INTO REFINING PLANS FOR INVESTIGAT

0206620007 KNOW THAT A SCIENTIST IN HIS INVESTIGATIONS USES THE PROCESSES

0206620008 KNOW THAT BY STUDYING AND APPLYING CONCEPTS, SCIENTISTS HAVE FOUND

0206620009 KNOW THAT CONCEPTS ARE A BASE FOR DRAWING INFERENCES.

0206620010 KNOW THAT SEARCHING FOR HIDDEN LIKENESSES LEADS TO CONCEPTS.

0206620011 KNOW THAT TECHNOLOGISTS APPLY CONCEPTS.

0206620012 DEMONSTRATE THE TESTING OF HYPOTHESIS, INDICATING WHETHER OR
THE RESULTS.

0206635 SOLAR SYSTEM (STARS)

0206635001 KNOW THAT NUCLEAR REACTIONS PRODUCE THE RADIANT ENERGY OF STARS,

0206635002 KNOW THAT NUCLEAR REACTIONS ARE THE SOURCE OF THE SUN'S ENERGY.

S AND PRODUCTS DEPENDS ON UNDERSTANDING CONCEPTS IN SCIENCE, AS WELL AS

S DEPENDS ON UNDERSTANDING BASIC CONCEPTS OF SCIENCE.

LY AFTER CAREFUL AND EXTENSIVE INVESTIGATIONS AND EXPERIMENTS.

RELATIONSHIPS BETWEEN CONCEPTS CAN LEAD TO NEW DISCOVERIES.

PLANS FOR INVESTIGATIONS.

IGATIONS USES THE PROCESSES OF LEARNING.

CONCEPTS, SCIENTISTS HAVE FOUND A MEANS FOR CONQUERING MANY DISEASES.

DRAWING INFERENCES.

NESSES LEADS TO CONCEPTS.

PTS.

IS, INDICATING WHETHER OR NOT HE ACCEPTS HIS OWN HYPOTHESIS, BASED ON

THE RADIANT ENERGY OF STARS, AND CONSEQUENT CHANGE,

ERIC
SOURCE OF THE SUN'S ENERGY.

- 0206635003 KNOW THAT ANALYSIS OF LIGHT FROM A STAR HELPS US DETERMINE
THROUGH THE DOPPLER EFFECT FOR LIGHT.
- 0206635004 KNOW THAT THE HEAT ENERGY OF A STAR IS A CLUE TO ITS SIZE
- 0206635005 KNOW THAT THE HEAT, TEMPERATURE, AND SIZE OF A STAR CAN BE DETERMINED
- 0206635006 KNOW THAT THE TOTAL HEAT AND LIGHT ENERGY OF A STAR IS A FURTHER CLUE
- 0206635007 KNOW THAT THE MILKY WAY GALAXY IS VAST IN THE NUMBER OF ITS STARS
- 0206635008 KNOW THAT THE NUMBER OF STARS IS ESTIMATED BY SAMPLING REGIONS
- 0206635009 KNOW THAT IN ORDER TO ESTIMATE THE TOTAL NUMBER OF STARS IN THE GALAXY
DIMENSIONS; THE LIGHT-YEAR UNIT OF DISTANCE IS CONVENIENT
- 0206635010 KNOW THAT WE SEE THE SOLAR SYSTEM AND OUR GALAXY AS IT WAS
- 0206635011 KNOW THAT STARS ARE CONTINUALLY CHANGING.
- 0206635012 KNOW THAT MOST STARS UNDERGO GRADUAL CHANGE.
- 0206635013 KNOW THAT SYSTEMS OF STARS MAY HAVE FORMED FROM SUPERNOVA REMAINS
- 0206635014 KNOW THAT THE POSITION OF THE STARS CHANGES IN A PREDICTABLE MANNER
- 0206635015 KNOW THAT THE CHANGING POSITIONS OF BODIES IN SPACE CAN BE PREDICTED

FROM A STAR HELPS US DETERMINE ITS DIRECTION TOWARD OR AWAY FROM THE EARTH.
FOR LIGHT.

OF A STAR IS A CLUE TO ITS SIZE.

NATURE, AND SIZE OF A STAR CAN BE DETERMINED BY ANALYSIS OF ITS LIGHT.

AND LIGHT ENERGY OF A STAR IS A FURTHER CLUE TO ITS SIZE.

GALAXY IS VAST IN THE NUMBER OF ITS STARS AND THE DISTANCES BETWEEN THEM.

STARS IS ESTIMATED BY SAMPLING REGIONS OF A GALAXY.

TO DETERMINE THE TOTAL NUMBER OF STARS IN THE MILKY WAY, WE MUST DETERMINE THE GALAXY'S
UNIT OF DISTANCE IS CONVENIENT.

OUR SOLAR SYSTEM AND OUR GALAXY AS IT WAS IN THE PAST.

CONSTANTLY CHANGING.

UNDERGO GRADUAL CHANGE.

THEY MAY HAVE FORMED FROM SUPERNOVAS.

THE POSITIONS OF THE STARS CHANGES IN A PREDICTABLE AND ORDERLY WAY.

THE POSITIONS OF BODIES IN SPACE CAN BE PLOTTED WITH ACCURACY.

0206640

SOUND

0206640001

KNOW THAT SOUND IS TRANSMISSION OF MOLECULES IN A WAVELIKE

0206640002

USE MOLECULAR THEORY AND THE WAVE THEORY TO EXPLAIN HOW SOUND TRAVELS TO A PERSON WHO HEARS IT.

0206640003

TELL WHAT CONDITIONS ARE NEEDED FOR MAKING AND HEARING SOUNDS.

0206640004

GIVEN EXPERIMENT WHICH PRODUCES DIFFERENT NUMBERS OF WAVES, PER SECOND (FREQUENCY) IS RELATED TO AMOUNT OF FORCE REQUIRED.

0206640005

GIVEN EXPERIMENT AND DIAGRAM SHOWING RESULTS OF EXPERIMENT (HEIGHT OR DEPTH) OF THE WAVES AND THE FORCE IT TOOK TO MAKE THEM.

0206640006

DETERMINE THE DISTANCE TRAVELED BY A SOUND THROUGH THE AIR GIVEN ITS SOURCE TO THE HEARER.

0206640007

GIVEN LIST OF MATERIALS OR SUBSTANCES THAT TRANSMIT SOUND, THOSE WHICH ARE POOR CONDUCTORS.

0206640008

GIVEN DESCRIPTION OF THE SURFACE OF A MATERIAL, TELL WHETHER IT REFLECTS (ECHO) IT.

0206640009

DESIGN EXPERIMENT WHICH DEMONSTRATES RELATIONSHIP BETWEEN AMOUNT OF ENERGY TO VARY THE VOLUME OF SOUND PRODUCED.

0206640010

RECOGNIZE RELATIVE VOLUME OF A SERIES OF SOUNDS (LOUDEST OR SOFTEST) OR WHEN GIVEN DATA ABOUT THE AMPLITUDE OF VOLUME.

0206640011

TELL HOW THE PITCH (FREQUENCY) OF A SOUND CAN BE RAISED OR LOWERED BY CHANGING THE VIBRATING OBJECT IS CHANGED.

0206665

WEATHER

0206665001

TELL THE DIFFERENCE BETWEEN WEATHER AND CLIMATE. TELL WHAT ATMOSPHERIC

MOLECULES IN A WAVELIKE PATTERN.

THEORY TO EXPLAIN HOW SOUND TRAVELS FROM ITS SOURCE (OR BEGINNING) TO THE

MAKING AND HEARING SOUNDS.

DIFFERENT NUMBERS OF WAVES, DRAW DIAGRAM TO DEMONSTRATE THAT NUMBER OF WAVES
AND AMOUNT OF FORCE REQUIRED TO MAKE THEM.

THE RESULTS OF EXPERIMENT, RECOGNIZE RELATIONSHIP BETWEEN AMPLITUDE
AND THE FORCE IT TOOK TO MAKE THOSE WAVES.

THE SOUND THROUGH THE AIR GIVEN THE NUMBER OF SECONDS SOUND TAKES TO TRAVEL

SUBSTANCES THAT TRANSMIT SOUND, IDENTIFY THOSE WHICH CARRY SOUND WAVES WELL AND

FOR A MATERIAL, TELL WHETHER THE SURFACE WILL TAKE IN SOUND (ABSORB IT), OR

THE RELATIONSHIP BETWEEN EXPENDED ENERGY AND VOLUME OF SOUND. (CHANGE
OF SOUND PRODUCED).

THE LOUDEST OR SOFTEST OF SOUNDS WHEN SHOWN GRAPHS PICTURING THEIR AMPLITUDE,
AND THE DEGREE OF VOLUME.

HOW SOUND CAN BE RAISED OR LOWERED WHEN THE LENGTH, THICKNESS, OR TENSION OF THE

WIND AND CLIMATE. TELL WHAT ATMOSPHERIC CONDITIONS ARE CHARACTERISTIC OF EACH.

0206670 WEATHER (CLOUDS)

0206670001 IDENTIFY BASIC CLOUD TYPES (CUMULUS, CIRRUS, AND CLOUD FORMATIONS.)

0206675 WEATHER (FRONTS)

0206675001 RECOGNIZE THE FOUR KINDS OF WEATHER FRONTS (WARM, COLD, EXAMPLE OF EACH.)

0206680 WEATHER (PRECIPITATION)

0206680001 MATCH DIFFERENT FORMS OF PRECIPITATION (RAIN, SLEET,

0206685 WEATHER (PREDICTION)

0206685001 GIVEN INFORMATION ABOUT FACTORS WHICH CAUSE MOVEMENT OF TEMPERATURES AND OTHER FACTORS WHICH CAUSE UNEQUAL

0206685002 PREDICT CHANGES IN THE WEATHER WHEN GIVEN READINGS FROM HYGROMETER).

0206685003 WHEN GIVEN DATA ON A WEATHER MAP, PREDICT THE PARTICULAR

0206685004 MATCH THE TOOLS USED BY METEOROLOGISTS (ELECTRONIC SATELLITES) WITH THEIR FUNCTIONS IN PREDICTING WEATHER.

0206690 WEATHER (RECORDING)

0206690001 GIVEN DESCRIPTION OF A WEATHER CONDITION, IDENTIFY THE THE SPECIFIED CONDITION.

0206690002 CONSTRUCT A POINT GRAPH OR LINE GRAPH FROM THE WEATHER

YPES (CUMULUS, CIRRUS, AND STRATUS) WHEN GIVEN A DRAWING OR DESCRIPTION OF THESE

DS OF WEATHER FRONTS (WARM, COLD, STATIONARY, AND OCCLUDED) WHEN GIVEN A DESCRIPTION OR

OF PRECIPITATION (RAIN, SLEET, HAIL, SNOW) WITH DESCRIPTION OF HOW EACH IS FORMED.

FACTORS WHICH CAUSE MOVEMENT OF AIR MASSES (ANGLE OF SUN'S RAYS, NIGHT AND DAY, HEATING), PREDICT PROBABLE DIRECTION OF AIR MOVEMENT.

WEATHER WHEN GIVEN READINGS FROM RECORDING INSTRUMENTS (THERMOMETER, BAROMETER, AND

ATHER MAP, PREDICT THE PARTICULAR TYPES OF WEATHER CONDITIONS IN THAT AREA.

METEOROLOGISTS (ELECTRONIC COMPUTERS, RADAR, RADIOSONDE, WEATHER BALLOONS AND FUNCTIONS IN PREDICTING WEATHER.

WEATHER CONDITION, IDENTIFY THE APPROPRIATE RECORDING INSTRUMENT FOR THE MEASUREMENT OF

OF THE GRAPH FROM THE WEATHER FORECAST EACH DAY.

0206695

WEATHER (STORMS)

0206695001

RECOGNIZE DEFINITIONS OF DESTRUCTIVE FORCES OF WEATHER (THUNDERSTORM)
WHEN GIVEN A DESCRIPTION OR DIAGRAM OF EACH STORM.

FORCES OF WEATHER (THUNDERSTORM, CYCLONE, TYPHOON, HURRICANE, AND TORNADO)
EACH STORM.