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ABSTRACT

This report on health instruction offers suggestions to stimulate the development of other activities tailored to specific situations. Content outlines suggesting concepts, learning activities, and discussion questions for evaluation are presented for each of the five sections that include preschool through senior high school levels. Topics covered include cleanliness and grooming, health, nutrition, family living, growth and development, environment, and safety. A list of references is provided for each section. (PD)

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**HEALTH
INSTRUCTION**

**Suggestions for
Teachers**

**Revised Edition
1969**

Price \$2.00

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**HEALTH INSTRUCTION
SUGGESTIONS FOR TEACHERS**

**Revised Edition
1969**



**Report of the Study Committees on Pre-School, Elementary
School, and Secondary School Health Education
of the
American School Health Association**

1/2

HEALTH INSTRUCTION

Suggestions for Teachers

Editor's Preface

The committees on Health Education in the pre-school, elementary and secondary schools of the American School Health Association have submitted the following report in the form of ideas and suggestions for teachers. The supplement has been organized into three sections: suggestions for elementary teachers, junior high school teachers, and senior high school teachers. Each of these sections has been further divided into their respective educational levels. Teachers at these levels will find it helpful to scan all of the material at his level and determine how best it can be used.

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ROBERT KAPLAN, Ph.D.
Editor of the Supplement

INTRODUCTION

For the Third International Conference on Health Education of the Public, which was held in the spring of 1956 in Rome, the American School Health Association Committee on Health Education in Elementary and Secondary Schools was privileged to prepare a report covering the following aspects of school health education:

1. What should be the role of health education in general education?
2. What are the major health needs of school-age children?
3. What experiences in healthful living contribute to the health education of pupils?
4. What experiences in the child's contact with school health services may contribute to his education in health?
5. What are the elements of an effective program in health instruction? How is such a program developed and adapted to the interests and needs of pupils at different age levels?
6. How may school health education be related effectively to the improvement of community health?

During the succeeding years the committee has collected and shared information about health education activities carried on in schools and found to be helpful in meeting the needs of pupils in achieving "a state of complete physical, mental, and social well-being" not as an end in itself but as a means to effective living.

As the work of the committee progressed, it divided into two subcommittees, one for the elementary and the other for the secondary level. In 1967 a Pre-school Health Education Committee was formed in response to requests for guidelines at this level. There are now three committees functioning in school health education. Each has a chairman and the general chairman coordinates the work of the committees.

The three school health education committees (Pre-School, Elementary, and Secondary) are pleased to submit this revised Health Instruction Supplement as a culmination of their efforts. This report is presented in the form of suggestions categorized into health content areas and arranged according to the following format:

Health Area:

Concept

Suggested Learning Experiences or Activities

Evaluation

A brief outline of content appears just preceding the suggestions for the various grade levels.

Many of the suggestions for the elementary and secondary levels were published in a supplement of the *Journal of School Health* in December 1964. Rather than reprint the 1964 supplement, copies of which have long been exhausted, the committees chose to revise and expand it and add an entirely new section for the pre-school level.

A list of references is provided for each section: Pre-School; Grades 1, 2, and 3; Grades 4, 5, and 6; Junior High; and Senior High. In addition, there is a list of references for teachers and other school personnel responsible for school health education. Miscellaneous materials, including audio-visual, are not suggested because of the many published sources for such information and the varying policies in school districts regarding the selection and approval of such materials.

In no way is this report presented as an instructional guide; rather, the information is contributed as suggestions for teachers and resource persons. Some of the suggestions may serve to stimulate the development of other activities tailored to specific situations. As school personnel use this information, they are encouraged to give particular thought to motivating the learning experiences with well-planned introductions designed to arouse pupil interest in the activities to follow. No attempt has been made to suggest activities for integrating health with other subjects, or for incidental health instruction based on "teachable moments." The committee believes that resourceful teachers will be well aware of the many opportunities for such activities in the daily program.

The committee recognizes that nothing can substitute for effective teaching, and, further, that the personal example of the teacher is a powerful influence on the health behavior of his pupils. The teacher is in the most strategic position to know the abilities and interests of his pupils, and to guide them in obtaining accurate health information and appreciating the importance of intelligent health attitudes and practices.

This report, then, is presented as a reference. Its value will depend on the extent to which teachers and school health personnel find it helpful in developing school health education experiences for pre-school, elementary, junior, and senior high school boys and girls. The members of the committee will be well rewarded if their suggestions contribute in any way to the improvement of health instruction and other facets of school health education.

Grateful acknowledgment is extended to Angela Kitzinger, Ph.D., Health Education Specialist, Drug Abuse Education Project, California State Department of Education, for assistance with the development of suggestions on Alcohol, Drugs, and Tobacco at the secondary level.

Sincere appreciation is expressed to the following committee chairmen whose outstanding leadership and generous professional service have made possible this revised Supplement on Health Instruction:

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1967-68

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Family Living

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Prevention and Control of Disease

Safety

References

PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
CLEANLINESS AND GROOMING		
<p>Hands should be washed before eating and after going to the toilet.</p> <p>Brushing teeth or rinsing them with water after eating helps them to look nice.</p> <p>Clean food is healthier than dirty food.</p> <p>Keeping tables clean before and after eating is important work.</p> <p>Sneezing and coughing passes germs which can cause colds and illness.</p> <p>Clothes can protect us from the weather.</p> <p>Clothes need care.</p> <p>Toys last longer when returned to their places.</p>	<p>After snacks at school, allow time for children to wash their hands, swish some water in their mouths.</p> <p>Have a different child clean up after snack time each day.</p> <p>Read some of the books on cleanliness and grooming.</p> <p>Play recordings of songs about cleanliness and grooming. Children will enjoy singing the songs after they have heard them several times.</p> <p>Show appropriate films.</p> <p>If possible, arrange for each child to have a place to hang his own coat in the classroom.</p> <p>Demonstrate, discuss, and practice ways of keeping clean and individual use of comb, towel, soap, drinking cup, toothbrush, and other items.</p>	<p><i>Discussion Questions:</i></p> <p>What should we do before we eat and after going to the toilet?</p> <p>What should we do after we eat?</p> <p>If you drop food on the floor, what should you do?</p> <p>If we sneeze or cough, what should we do? Who can show us?</p> <p>Do you have a special place at home where you keep your things?</p>

DENTAL HEALTH

<p>Teeth need brushing.</p> <p>After meals, brushing teeth or rinsing the mouth with water helps keep teeth clean and helps prevent holes, or cavities, in them.</p> <p>There is a proper way to brush the teeth.</p> <p>The dentist helps take care of our teeth.</p> <p>Eating the right kinds of food helps us to keep our teeth healthy.</p> <p>Eating or drinking too many sweets can cause holes, or cavities, in the teeth.</p> <p>Teeth and gums can be hurt by sharp objects and by biting on hard objects.</p>	<p>Let children show how they brush their teeth. Then show them on a model how the dentist says they should brush their teeth.</p> <p>Show a film or filmstrip that tells about a trip to the dentist.</p> <p>If feasible, plan a trip to the dentist's office.</p> <p>Have a dentist come to school to talk to and show some of his instruments to the class.</p> <p>Display posters about how to brush the teeth such as those available from the American Dental Association.</p> <p>Display posters, charts, pictures of foods that help keep the teeth healthy.</p> <p>Plan a snack party in which some of the foods that are good for the teeth are served.</p> <p>Have children pantomime a visit to the dentist.</p>	<p><i>Discussion Questions:</i></p> <p>Do you know how you can keep your teeth clean?</p> <p>Do you know the best way to brush your teeth? Who can show you how to brush your teeth?</p> <p>When should you brush your teeth? Why?</p> <p>What can you do if you can't brush your teeth after you eat?</p> <p>Do you know who helps us take care of our teeth?</p> <p>Who has been to the dentist? What did the dentist do when you saw him?</p> <p>How else can we take care of our teeth?</p>
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PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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EYES, EARS, NOSE

<p>Eyes are for seeing, ears for hearing, and noses for smelling. Eyes, ears, and noses can be easily hurt by hard pointed things. Rubbing the eyes can hurt them. Eyes need time to rest especially after watching TV for a long time. Too much noise can hurt the ears. The nose should be blown gently. Doctors help to take care of eyes, ears, and nose.</p>	<p>Have pupils tell in their own words how they think their eyes, ears, and nose help them to find out about things. To stress the importance of taking care of the senses have children hold their hands over their eyes and try to read, hold their ears and try to listen to a record, and hold their nose to try and smell a flower. You might make a bulletin board showing pictures of children's favorite things to see, hear and smell. Read from books that deal with the senses.</p>	<p><i>Discussion Questions:</i> What do you see with? What do you hear with? What do you smell with? Can you show me where your ears are? Your eyes? Your nose? Can anyone show us how far they would sit from a TV when they watch it? Do you know why we sometimes have to quiet down, rest, and make less noise? What are your favorite quiet activities? Who can help us take care of our eyes, ears, and nose?</p>
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REST AND SLEEP

<p>Time to rest is important when tired and after a long time playing. Rest and sleep help us grow and keep well. Sleep is better with a regular time to go to bed each night. A quiet time, reading a book or listening to soft music, is helpful before going to bed. Going to bed when told to helps us get enough sleep to feel good the next day.</p>	<p>Be sure to allow time for children to rest following active period of play. You might set aside a special corner with materials that offer quiet and restful activities- picture books, soft music, drawing, and so on. During rest time, you might read aloud some books on rest and sleep. Appropriate recordings may be played at different rest times. Have pupils observe pets so they can see that pets need sleep and rest too.</p>	<p><i>Discussion Questions:</i> If you have been playing very hard for a long time, what should you do? Why do you think you need rest? When the teacher asks you to rest, what do you do? What do you do before you go to bed at night? What is your favorite bedtime story? Do you know why you have to go to bed when your mother and father ask you to?</p>
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PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION		
<p>Certain foods help us grow and stay healthy, and we should try to eat them every day.</p> <p>Breakfast is an important meal because it gives us energy to start the day.</p> <p>Drinking milk every day, instead of soft drinks, tea, or coffee helps you grow.</p> <p>Snack foods can help us stay healthy. Milk, fruits and vegetables are better snacks than sweets.</p> <p>New and different foods can be healthy. To learn to like them they must be tried.</p> <p>Hands should be washed before eating any foods.</p> <p>Teeth need brushing after eating.</p> <p>Tables need cleaning after eating.</p>	<p>When discussing foods that are nutritious, try to have pictures of the basic four food groups on hand to show children.</p> <p>During snack time have on hand some nutritious snacks — graham crackers, celery, carrots, cheese, hard-boiled eggs, cold cereal, fruits.</p> <p>Make a weekly snack chart with pictures children may place under the four food groups.</p> <p>Have a tasting party in which children taste things they may have not had before.</p> <p>Take a trip to the grocery store to let children pick out their own snacks.</p> <p>Allow time for children to wash their hands before meals and to rinse their mouths with water afterwards.</p> <p>With the use of food models, have children select food for breakfast, lunch, and dinner.</p> <p>Have children play store and shop for food using food models.</p>	<p><i>Discussion Questions:</i></p> <p>Do you know what foods help us to grow?</p> <p>Why should we eat some of each of these foods every day?</p> <p>Name some foods to have for breakfast. What is your favorite food for breakfast?</p> <p>We all drink milk every day. Do you know what other foods have milk in them?</p> <p>What foods do you eat for snacks?</p> <p>What would you do if your mother gave you something to eat you had not tasted before? Do you know why you should taste food that you have not had before?</p> <p>What should you do before you eat?</p> <p>What should you do after you have finished eating?</p>

PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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GROWTH AND DEVELOPMENT

We need sleep to help us grow.

We need to play to build strong muscles and to stay healthy.

Playing outdoors in the sunshine and the fresh air helps keep us well and strong.

When we play for a long time and get tired, we need time out to rest.

Although we may not be growing in exactly the way we might like, we are growing in our own special way.

The dentist checks to see if our teeth are growing in the right way.

The doctor checks to see if we are growing in our own special way.

As we grow, we learn to do more things, just as we learn to help others in more ways.

To grow in the way that is right for us, we should eat the right foods, play outside in the fresh air and sunshine, and get lots of rest and sleep.

Have a weighing and measuring time during which each child is told how much he weighs and how tall he is. If possible, have a full-length mirror in the room so children can look at themselves. You might read books on growing to the class.

Discussion Questions:

How can we help our muscles grow?

How does sleep help us grow?

Do you think we all grow in the same way? Do you know someone who is different?

Who helps check to see how we are growing? How does he do it?

Who helps check our teeth to see that they are growing in the right way?

What have you learned to do this year that you did not know how to do last year?

How do you help at home? What new things have you learned to help with at home?

PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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FAMILY LIVING

All families and homes differ; but they are all alike in that they provide for us a place to live and a place where people love and take care of us.

Every person in the family has needs as well as responsibilities.

As we grow older we have more responsibilities just as we have more privileges.

We can help family members just as they can help us.

Our family helps us enjoy many things.

There may be times that we do not agree with all the family members, but when we must go along with their wishes; just as there are times when they will go along with our wishes.

A new baby in the family requires more attention than other family members because it cannot do things for itself.

You might make a large display of family photographs children may bring from home.

Have children draw pictures of their homes or of their families.

Set up a housekeeping corner in which children may learn simple household tasks such as setting the table, drying the dishes, answering the telephone.

Make a bulletin board display of various ways families enjoy themselves. Use pictures from magazines or let children draw pictures.

Discussion Questions:

What kind of home do you live in?

How many people are in your family?

How does your family help you? How do you help at home?

Is there a small baby in your family? Can it help you? Why? Can you help the baby?

When you were a baby, do you think the other family members helped you?

Now that you are older can you do more than you could when you were a baby?

How do you and your family have fun together?

Are there times when your family will not let you do things you want to do? What do you do?

What are the special jobs mothers have to do? What are the special jobs fathers do?

PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
UNDERSTANDING OURSELVES AND GETTING ALONG		
<p>Each of us can do some things though we can't all do everything.</p> <p>Although we may not be growing in the way we like we are growing in our own special way.</p> <p>When you have a problem, it is wise to talk it over with an adult.</p> <p>Sometimes when we get angry or upset about things, play helps us forget about them.</p> <p>Taking turns and sharing can help all of us enjoy ourselves.</p> <p>Quarreling about things can keep us from enjoying them; there are ways that we can stop quarreling or in which we can keep it from happening.</p> <p>Sometimes people need help just as we need help. Helping each other can be pleasant.</p> <p>Helpful people deserve a "thank you."</p>	<p>Emotional and social health is being taught throughout the child's daily life. Encouraging the child to share and take turns, to handle his emotions in mentally healthy ways, to help others when they need help, to accept his own way of growing, and to discuss problems with an adult are important learnings. There are books that deal with many of these problems. Take time out to read and discuss books that highlight many problems that children must learn to deal with.</p>	<p><i>Discussion Questions:</i></p> <p>If you want to play with something and another person has it, what should you do?</p> <p>There are some times when you try to take turns and someone else doesn't want to. Do you know what you should do?</p> <p>What do you think is the best way to stop a quarrel?</p> <p>If you see someone who is not playing in a game, how could you help him?</p> <p>If someone helped you in some way, how would you thank him?</p> <p>If you had a problem that you could not solve by yourself, whom would you talk to?</p> <p>Did you notice someone today who felt as angry as you have at some time? What did he do about this feeling?</p>

PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
PREVENTION AND CONTROL OF DISEASE		
<p>Clothes should protect us from the weather.</p> <p>Covering our mouths when we sneeze or cough prevents the spread of germs.</p> <p>To stay healthy, we must eat the right foods, play outside in the fresh air and sunshine, and get lots of rest and sleep.</p> <p>The doctor helps us to stay well; he also helps us to get well when we are sick.</p> <p>The school nurse helps us when we get sick at school.</p> <p>Shots are given to us so we will not get certain illnesses.</p> <p>We should not take medicine unless we are given it by an adult.</p> <p>Foods that are dirty or have fallen to the floor should not be eaten.</p> <p>Those with a cold should stay home from school.</p> <p>Plenty of rest in bed helps to recover from being sick.</p>	<p>Children enjoy acting out a visit to the doctor. If possible, have on hand a toy stethoscope so children may listen to each other's heartbeats.</p> <p>Make a class visit to the nurse's office.</p> <p>If possible, arrange for a doctor to talk with the children and show them some of the instruments he uses.</p> <p>If there is a veterinarian's office nearby, you might make arrangements to take children there so they may see how animals are taken care of when they are sick.</p> <p>When a child is sick at home, have the class make get-well cards to send to the sick child.</p> <p>Read appropriate books to the class.</p>	<p><i>Discussion Questions:</i></p> <p>Who has been to the doctor? What did he do? Do you know why you have to go to the doctor? Do you know why the doctor sometimes gives you shots?</p> <p>If you get sick at school, whom should you go to? Did you ever get medicine from the doctor? Should you ever take medicine by yourself?</p> <p>What should you do if you have to sneeze or cough? What should you do when you have a cold or are sick in some other way? What are some things you enjoy doing when you are sick and have to stay in bed?</p>

PRE-SCHOOL

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SAFETY		
<p>Careful use of scissors or other sharp instruments can prevent us from hurting ourselves and others. Pencils and sharp things are dangerous to our mouths.</p> <p>When taking medicine our parents or other adult should give it to us.</p> <p>Toys out of place can cause accidents.</p> <p>Safe fire drills require everyone to line up quickly, be quiet, listen and follow instructions.</p> <p>To avoid accidents on the school bus all children should stay in their seats and not put their arms or heads out of the window.</p> <p>Pushing, shoving, and tripping each other causes us to get hurt.</p> <p>If someone gets hurt, the adult in charge can help and should be told quickly.</p> <p>We can cross streets safely by carefully waiting for a green light and looking both ways and for turning cars.</p> <p>When children go outside to play, the adult in charge should be told where they are going.</p> <p>Boys and girls should never go off with strangers.</p> <p>Strange animals can be dangerous. Teasing any animal can be dangerous. There are helpers who keep us safe.</p>	<p>Have children demonstrate what they would do when crossing the street.</p> <p>Be sure to allow time for children to return things to their proper places before going on to another activity.</p> <p>If the nursery school does not have a standard procedure for fire drills, be sure to show children the exit, teach them how to line up, and emphasize the importance of their being quiet.</p> <p>You might have children pantomime proper procedures for riding on the school bus.</p> <p>Be sure children are aware of proper procedures for playing on the playground—waiting for turns and sharing the equipment.</p> <p>Display pictures of people who help keep us safe (patrol boys, policemen, firemen).</p> <p>Take children on a safety walk around school pointing out safe as well as dangerous places to play.</p> <p>Take children on a trip to the fire station if one is nearby.</p> <p>Read some books on safety to the class.</p>	<p><i>Discussion Questions:</i></p> <p>If you were going to hand a pair of scissors to someone else, how would you do it?</p> <p>If you saw a bottle on the table and you did not know what was in it, would you drink from it? What do you do with your toys when you are finished playing with them?</p> <p>If the fire bell rang, what would you do?</p> <p>If you were on the playground and someone was on the swing and you wanted to use it, what would you do?</p> <p>When you are riding to school on the bus, what do you do?</p> <p>If you, or one of your friends, got hurt while playing, what would you do?</p> <p>When you go to cross the street, what do you do?</p> <p>When you go outside to play and a friend asks you to go to his house to play, what should you do first? What would you do if a stranger asks you to go with him?</p> <p>If you saw a strange dog on the street, what would you do?</p> <p>Can you think of people who help keep you safe? How do they help you?</p> <p>If you get lost, what should you do?</p>

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See page 90.

**OUTLINE OF CONTENT FOR
GRADES 1, 2, AND 3**

Cleanliness and Grooming

Rest and Exercise

Sleep and Rest

Growth

Posture

Role of Physician and Dentist

Individual Responsibility for One's Health

Responsibility for the Health of Others

Dental Health

Vision and Hearing

Babies

Nutrition

Making New Friends

Being Alone Sometimes

Family Time

Protection from Infection

Food Protection

Safety

References

PRIMARY GRADES (1-3-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
CLEANLINESS AND GROOMING		
<p>Careful grooming and an attractive appearance are similar.</p>	<p>Discuss dressing for a party, for school, for play. Explore how dressing for these occasions is similar and different.</p>	<p>Have the children draw pictures of dressing for a party, for school, and for play.</p>
<p>Cleansing the body regularly is important.</p>	<p>Explore items or areas in the classroom that may have become soiled because of dirty hands. Demonstrate hand-washing, using soap, a nail brush, and towel. Have a child demonstrate how to use a nail file correctly. Observe pores of skin with magnifying glass. Determine occasions when it may be permissible to get dirty. Discuss types of clothes that are appropriate for getting dirty. Dramatize taking a bath (a tub bath, bubble bath, shower bath, sponge bath). Place oil on a piece of paper. Sprinkle dust or dirt on it. Sprinkle dust or dirt on a non-oiled piece of paper. Draw a comparison with the dirt on the paper and the oil glands, causing the skin to hold dirt.</p>	<p>Encourage children to check cleanliness of own skin, hands, and nails with regularity—permit children to evaluate.</p>
<p>Care of hair is important in grooming.</p>	<p>Explore how children get their hair washed, how it looks when it is dirty and when it is clean. Have a boy demonstrate how he cares for his hair with a comb and brush. Have a girl demonstrate how she cares for her hair with a comb and brush. Demonstrate how easily a dirty comb and brush can be cleaned with a small amount of ammonia and warm water.</p>	<p>Have a mirror in the classroom and permit the children to check on their appearance. With regularity permit children to evaluate.</p>

PRIMARY GRADES (1-3-5)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
CLEANLINESS AND GROOMING—(Continued)		
Clean toilet habits are important.	Discuss clean toilet habits at home and in public places: proper use of toilet areas, washing hands before leaving. Show toilet articles to be used personally by each individual: comb, wash cloth, towel, drinking cup, toothbrush.	Have the custodian visit the class to talk about the importance of keeping the toilet clean. Check with the custodian as to the responsibility to be assumed by the children.
Proper care of clothing is an individual responsibility.	Explore how dirty clothes are made clean: washing by hand, by machine, by taking clothes to the cleaners. Discuss the different ways clothes are properly cared for: clean clothes are put away, hung in closets; dirty clothes are put in hamper or in washer to wait for washing.	Prepare a checklist of places to keep clothes—to be taken and checked at home. Have the children draw pictures of how they care for their clothes at home.
Dress for the weather.	Discuss dressing in accord with reports of the weather on radio and TV. Watch changes in outdoor thermometer at home and outside classroom. Compare outside temperatures for selection of appropriate clothing.	Observe children who dress correctly for weather changes and those who do not. Have a style show showing correct dress for changes in the weather.
REST AND EXERCISE		
Proper foods, plenty of sunshine, rest and exercise are needed to grow and be strong.	Participate in some daily vigorous activities in the out-of-doors. Discuss how much better we feel when we have been active and out-of-doors.	Observe those children who play actively and with others, and those who play alone or are not physically active at play.
Exercise is needed not only for muscular development but for proper growth of the internal organs.	Permit the children to perform a vigorous exercise. Discuss how vigorous exercise forces each one to breathe fast and deeply right after the exercise. Count the pulse rate before activity and just after a vigorous activity.	Give a simple test: running in place for 30 seconds.

PRIMARY GRADES (1-3-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SLEEP AND REST		
<p>Adequate sleep and rest help to make the body feel better.</p>	<p>Discuss the importance of relaxation after vigorous activity.</p> <p>Provide intervals during the day for a brief rest and relaxation period. Discuss how this helps the body.</p> <p>Explore different kinds of quiet activities to participate in before going to bed.</p> <p>Arithmetic activities: determine hours per day spent sleeping; hours per day spent playing out-of-doors and indoors.</p> <p>Make clocks with movable hands and have the clocks set for bed time, rising, and play time.</p>	<p>Have the children keep a record of hours they sleep for a two-week period. Have them total the hours at the end of each week. Observe possible changes with increased amount of sleep.</p>
GROWTH		
<p>Proper foods, plenty of sunshine, rest and exercise are needed to grow and be strong.</p>	<p>Have the school nurse weigh the children and measure their height. Discuss how some weigh more and are taller than others.</p> <p>Develop an arithmetic lesson to compare the differences in height and weight.</p> <p>Compare present height and weight with known measurements at birth.</p> <p>Compare baby pictures with most recent pictures.</p> <p>Relate growing to growth of pets: pets need sleep, rest, food, and exercise.</p> <p>Relate growing to growth of seeds and plants.</p> <p>Explore some of the ways children stay healthy: regular check-ups, clean habits, plenty of proper foods, sleep, rest and exercise, foot care.</p>	<p>Send home a report of height and weight for posting at home. Encourage continuous measuring and recording at home.</p> <p>Measure differences in length of feet by outlining feet or shoes and making comparisons.</p> <p>Have pets or animals in the classroom and weigh and measure them.</p>

PRIMARY GRADES (1-2-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
POSTURE		
<p>Correct posture is beneficial to health.</p>	<p>Demonstrate with blocks how balance is maintained by placing one block directly on top of another. Compare with body balance.</p> <p>Discuss correct body position in sitting, walking, and running.</p> <p>Have the children feel the muscles and tendons and determine how different joints move and contribute to correct posture.</p> <p>Hang up a piece of cord with a weight on it to act as a plumb bob. Have a child stand next to it. Permit the children to sight both front and side views to determine whether the cord bisects the middle of the body.</p> <p>Make posters about correct posture.</p>	<p>Take photographs of children with correct and incorrect posture.</p> <p>Draw stick figures showing excellent and poor postures.</p> <p>Have the children check their own posture in the mirror.</p>

ROLE OF PHYSICIAN AND DENTIST

<p>The physician helps us to keep healthy.</p>	<p>Identify ways in which the physician helps children to keep healthy: he vaccinates children against smallpox, gives polio vaccine, gives medicine when needed.</p> <p>Have the school doctor visit to talk with the children.</p>	<p>Have the children check on the different ways their physicians have helped them to stay healthy; for example, find out the different inoculations the children have had.</p>
<p>The dentist helps us to keep healthy.</p>	<p>Discuss some of the ways the dentist helps children to keep healthy.</p> <p>Ask children to tell reasons that regular visits to the dentist are important.</p> <p>Identify differences between the work of the school dentist and the work of the family dentist.</p>	<p>Ask children to report when they have visited the dentist.</p>

PRIMARY GRADES (1-2-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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INDIVIDUAL RESPONSIBILITY FOR ONE'S HEALTH

Every boy and girl should become responsible for his own health.	Explore how individuals grow and become responsible for their own health: eat right kinds of food, visit the physician and dentist regularly, dress properly for changes in weather.	
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RESPONSIBILITY FOR THE HEALTH OF OTHERS

Each person is responsible for his own health and the health of others.	Dramatize the importance of assuming responsibility for one's own health and the health of others. washing hands before meals and after toileting, using own drinking glass, eating with own fork and spoon, washing dishes thoroughly with soap and hot water and rinsing well with hot water, throwing away food that has fallen to the floor, covering mouth and nose with tissue when coughing or sneezing.	Observe pupils for progress in covering coughs and sneezes, in proper disposal of soiled tissues and other wastes.
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DENTAL HEALTH

Teeth should be brushed regularly. Teeth are formed in the jaw and erupt in orderly sequence.	Ask the school dental hygienist to talk with the pupils about care and structure of teeth. Stress habits of dental care. Encourage children to visit the dentist regularly. Demonstrate correct tooth brushing using a model. Explain that early loss of baby teeth may cause permanent teeth to come in crooked.	Have children volunteer information about how often they brush their teeth. Have children anticipate the school dental appraisal and ask questions about it.
Certain foods are necessary to build strong teeth.	Discuss the value of strong teeth and their effect on appearance, speech, and eating. Read about foods that help build sound teeth. Show filmstrips and films on this subject.	

PRIMARY GRADES (1-2-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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DENTAL HEALTH—(Continued)

<p>Some foods cause teeth to decay. Teeth can be cleaned at school.</p>	<p>Study the effects of sweets and other foods that form acids when acted upon by bacteria in the mouth. Ask children to keep a record of toothbrushing for two weeks; to practice rinsing the mouth the swish-and-swallow way; to chew a soda cracker to notice the sweet taste when mixed with saliva; to chew an apple, carrot, or celery to clean the teeth.</p>	<p>Ask parents to help children check a toothbrushing chart. Observe if children are eating firm fruits and vegetables for cleaning teeth at lunchtime. Observe also for drinking water after eating.</p>
<p>Teeth are important for speech, appearance, and mastication of food.</p>	<p>Show pictures of malocclusion and discuss problems resulting from this condition. Use a model of teeth to show correct bite. Read health texts about care of teeth. Discuss advantages of having one's own teeth. Write original poems, stories, or songs about teeth. Make posters on desirable dental health habits.</p>	<p>Discuss results of dental appraisal made at school. Find out whether children understand that there is a relationship between mouth hygiene, dental care, and the condition of their teeth. Observe improvement in dental care.</p>

VISION AND HEARING

<p>Normal vision and hearing increase learning ability.</p>	<p>Discuss what our eyes and ears do for us in our school work, helping us to read, listen, play, appreciate trips, and respond to colors and sounds. Talk about the advantages of a quiet and well-lighted room for reading. Display pictures or models of eyes and ears with labeled parts. Explore the special care needed to preserve vision and hearing. Discuss the assistance of glasses and hearing aids to those who need them.</p>	<p>Observe children's interest and participation. Note differences when reading in too little, too much, and just the right amount of light. Observe if children wear glasses or hearing aids. Have children draw pictures of people who have different devices to help them live a better life: hearing aids, glasses, crutches.</p>
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PRIMARY GRADES (1-2-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES-OR ACTIVITIES	EVALUATION
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VISION AND HEARING--(Continued)

<p>Safety habits are important to eyes and ears.</p>	<p>Discuss the dangers of rubbing the eye if something gets into it, playing with sharp objects, throwing rocks or sand at others, not watching where one is walking or running.</p> <p>Discuss proper way to clean ears. Explain reasons for NOT "digging" into the ears.</p> <p>Demonstrate correct way to blow the nose.</p> <p>Have children make safety posters.</p>	<p>Observe children at play and on the street. Note safety habits.</p>
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BABIES

<p>Babies need care and protection.</p>	<p>Babies come from eggs and need food, sleep, exercise, and care for growth.</p> <p>Bring pictures to show that babies come from eggs which grow inside the mother or from those hatched outside the body.</p> <p>Read stories about animal babies.</p> <p>Discuss human babies.</p> <p>Human babies have the same needs as older children—a variety of foods, cleanliness, clothing, safety, and love.</p> <p>Protection against illness is important.</p> <p>Have a nurse tell about the importance of immunization for childhood illnesses.</p> <p>Tell about a visit to your doctor or to a clinic.</p> <p>Talk about the rapid growth of human or animal babies.</p>	<p>Note degree of interest and involvement in discussion.</p> <p>Observe willingness to tell about a baby in their own family.</p> <p>Observe willingness to get necessary immunization.</p>
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PRIMARY GRADES (1-2-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION		
Wholesome food is essential for strong bodies and growth.	Discuss the four basic foods and their contributions to growth and body-building. Make a health train for the bulletin board.	Test for knowledge of the the four basic food groups.
One must learn to eat a variety of foods.	Make a scrap book featuring "balanced meals." Make a poster showing foods that are considered best for between-meal snacks. Have a tasting party to introduce new foods on the lunch menu. Visit a local grocery store to observe packaging of food, cost, cleanliness, and the use of scales. Plan a class grocery store using empty cans, cartons, etc. Read scales, also figure food costs, using paper money. Plan a balanced menu; figure the cost of the meal. Show films and film strips on foods, nutrition, and grocery stores. Have art activities which reproduce fruits and other foods.	Find evidence of an appreciation for a clean store. Test for understanding of use of weights and measures when purchasing food.
Milk is important for proper growth.	Discuss the value of milk for growth. Learn how milk is secured on the farm, sent to be processed and packaged. Visit a dairy. Visit a creamery to see the variety of dairy products.	Elicit an appreciation of the value of milk and milk products.
Sanitation is necessary in preparing, serving, and eating food.	Discuss food suitable for a party. Show ways of keeping foods clean during their preparation and serving. Wash hands before lunch.	Observe improvement in handling and eating food.
Breakfast is an important meal.	Discuss breakfast menus. Plan breakfast menus that children can prepare at home.	Observe health and alertness of the class. Counsel with children who do not eat breakfast.

PRIMARY GRADES (1-3-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION—(Continued)		
<p>The lunchroom should be an enjoyable place to eat.</p>	<p>Discuss and make lists of lunchroom procedures and necessary rules. Decorate lunch boxes. Make posters indicating finger foods, fork foods, spoon foods. Show films on table manners. Make poster-reminders of polite manners. Play appropriate music during the lunch period.</p>	<p>Observe improvement in table manners and cleanliness of the lunchroom. Observe quiet atmosphere during the lunch period. Note use of proper utensil while eating. Observe proper use of table napkins. Encourage pupils to taste new foods.</p>
MAKING NEW FRIENDS		
<p>Learning to work and play together.</p>	<p>Discuss how important it is to learn to work and play with friends and classmates. Provide experiences for children to work and play together.</p>	<p>Have a "Show and Tell" activity of feelings experienced when children did things with others.</p>
<p>Sharing at work and play.</p>	<p>Explore how children grow doing things for others and doing one's share at work and play at home.</p>	<p>Make a checklist of things a child may do at home.</p>
<p>Accepting new pupils.</p>	<p>Read the story of <i>Baby Roo</i> by Laura Bannon. Discuss how Baby Roo felt when the other animals didn't know him. Discuss how the dog helped the other animals understand that a kangaroo is an animal too. Talk about how Baby Roo and all the other animals felt when they liked each other. Ask pupils to tell how they can help boys and girls who are new. Dramatize the story of <i>Baby Roo</i>.</p>	<p>Observe the attitude of pupils to new boys and girls.</p>

PRIMARY GRADES (1-3-5)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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MAKING NEW FRIENDS—(Continued)

<p>Sharing and being courteous make new pupils feel at home.</p>	<p>Discuss getting along at physical education time, such as taking turns, not "crowding in". Talk about getting along in school and at home. Talk about sharing, being polite, being responsible, making friends.</p> <p>Ask pupils to show how to offer help. Discuss how we feel when some of us are new and what some children did that helped us.</p>	<p>Observe children on playground and in class to see how they are using the knowledge learned in class. At the end of the day ask new pupils if they made a new friend.</p> <p>Note difference in new pupils who were accepted by the classmates and those who were not or would not participate in activities.</p>
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BEING ALONE SOMETIMES

<p>Being alone sometimes is important.</p>	<p>Discuss the importance of doing some things alone: reading a book, listening to music, drawing a picture, just sitting and thinking.</p> <p>Provide experiences for children in which they can do activities alone.</p> <p>Explore other ways of growing such as reading more difficult stories, using the hands to make different things, playing more difficult games.</p>	<p>Make a bulletin board showing the increase in the number of books read at leisure. Have the children bring in things they have made at home as hobbies.</p>
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FAMILY TIME

<p>Mealtimes should be pleasant times.</p>	<p>Display pictures of people eating together.</p> <p>Discuss the responsibility of each person in making mealtime a pleasant experience.</p>	<p>Observe if children improve their eating habits and table manners.</p>
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PROTECTION FROM INFECTION

<p>Children have the responsibility for the health of others.</p>	<p>Discover how infectious diseases are caused by microorganisms and that staying home with a cold or other illness will help prevent spreading of germs.</p> <p>Grow microbes in a petri dish or on a raw potato to be observed under a microscope.</p>	<p>Learn to cover coughs and sneezes.</p> <p>Observe pupils for increased hand washing.</p> <p>Encourage use of tissues to cover coughs and sneezes.</p>
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PRIMARY GRADES (1-2-3)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
FOOD PROTECTION		
The school lunchroom protects our food.	Visit the lunchroom kitchen to observe how food is handled and stored at the proper temperature.	Observe appreciation of lunchroom rules and procedures.

SAFETY

Safety at all times will help prevent accidents.	Discuss safety in the home, school, streets, and on trips. Discuss both safe and unsafe practices. Fire keeps us warm and cooks our food. Fire destroys, such as fires that burn homes, fields, forests because of careless persons. Teach neat house-keeping by putting toys away. Make a list of safety rules when playing with sharp objects, throwing objects at one another, swimming, sledding, and for other activities at home and at school.	Listen carefully to conversations about home activities. Obtain reports from safety patrol. Observe actions on streets. Observe safety activities as practiced in the classroom.
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REFERENCES FOR THE TEACHER

See Page 90.

**OUTLINE OF CONTENT FOR
GRADES 4, 5, AND 6**

Health Care

Cleanliness and Grooming

Vision and Care of Eyes

Hearing and Care of Ears

Heart

Teeth

Exercise, Rest, and Sleep

Nutrition

Growth and Development

Family Living

Understanding Ourselves

Getting Along with Others

Making Decisions

Environmental Health

Prevention and Control of Diseases

Safety and First Aid

References

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
HEALTH CARE		
<p>Healthy bodies are important for several reasons.</p>	<p>Make a study of school attendance and reasons for absences. Discuss these reasons in relation to personal health care. List topics for further study.</p> <p>Divide class into study committees to make reports on specific topics related to personal health.</p>	<p>Check for:</p> <ul style="list-style-type: none"> • better school attendance. • originality of report.

CLEANLINESS AND GROOMING

<p>Cleanliness and careful grooming make us feel and look better.</p>	<p>Read about cleanliness and grooming in health books. Show appropriate films and filmstrips.</p> <p>Discuss: "What do the words good grooming mean to you?" "Good grooming is . . . cleanliness, neatness, care, and proper choice of clothing."</p> <p>Make a checklist of daily grooming and grooming hints. Discuss soap ads and ads for other grooming aids. List necessary items for a grooming kit. Make a grooming kit for boys and one for girls. Collect pictures of suitable hair styles, clothing, etc. to place on bulletin board under appropriate headings.</p> <p>Plan weekly grooming check of class. Make a health wheel listing such things as general appearance, fingernails, hair, etc. Spin at intervals. If the wheel stops at fingernails and the child passes inspection, he receives recognition on the class chart. Let the class select examples of different good grooming characteristics from among several class members.</p>	<p>Observe interest and participation of children.</p> <p>Observe if children:</p> <ul style="list-style-type: none"> • begin to think of suitability and neat grooming rather than fancy clothing. <p>Observe practice of correct posture.</p> <p>Watch for improvement in personal appearance.</p> <p>Note if pupils display more consciousness of their responsibility for personal appearance.</p>
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INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
VISION AND CARE OF EYES		
Vision is an important channel for learning.	Discuss: Confucius said, "A picture is worth 10,000 words." Do you agree?	Observe pupil interest and participation in:
Vision should be checked regularly.	<p>Discuss vision testing in school. How often? Why? What is meant by "screening for eye defects"? How is this screening different from a "professional examination"? Have a pupil report on work of Dr. Scellen. Have a school nurse explain screening procedures and equipment. Ask the nurse to give a vision screening to the class. Discuss results that will be sent home to parents regarding vision screening.</p> <p>Have pupils who wear glasses tell how glasses help them and describe care of glasses. List different reasons for wearing glasses. Name prominent people who wear glasses. Have pupils look up material and report to class on history of eye glasses.</p>	<ul style="list-style-type: none"> • determining their own visual acuity. • following through on referrals for professional attention • using safety measures • wearing glasses when needed • using reference material <p>Test for understanding of:</p> <ul style="list-style-type: none"> • use of glasses • vocabulary related to vision • hazards in eyesight found in daily activities • safety measures to protect eyes • use of professional services.
The possibility of injury to the eyes is present in many situations.	<p>Discuss hazards and safety measures in games e.g. playing ball:</p> <ul style="list-style-type: none"> • watch the ball closely • do not stand too close to batter or catcher. 	
Everyone must be responsible for safety of his own eyes and for safety of the eyes of others.	<p>Study recommendations and provisions for safety in relation to eyes. List dangers in use of and investigate safety laws regarding:</p> <ul style="list-style-type: none"> • sling shots • bows and arrows • BB guns and air rifles • fireworks <p>Obtain information about eye safety. Ask the nurse about the kinds of eye injuries most common in school. Make a report of accidents involving eyes, including cause, preventive measures, care, results in loss of vision, disability.</p>	Test knowledge of the importance of eye safety.

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
VISION AND CARE OF EYES—(Continued)		
<p>Because a foreign body can cause serious damage to an eye, the foreign body should be removed carefully.</p>	<p>Discuss why children should not attempt to remove a foreign body themselves and why rubbing eyes is dangerous.</p> <p>Have the nurse demonstrate some of the procedures for proper care of eyes.</p> <p>List professional practitioners who can help with eye care. Know the difference between an ophthalmologist, oculist, optometrist.</p> <p>Take a test for color blindness—color blindness limits one's choice of occupation.</p>	
<p>Nature has provided protection for our eyes.</p>	<p>Show films on structure and care of eyes.</p> <p>Look at each other's eyes and list ways nature has provided protection. Label all protective parts on drawing of eyes and surrounding structures.</p> <p>For personal use, make booklets on eyes and their care.</p> <p>Study a model of an eye.</p> <p>Compare an eye to a camera.</p>	<p>Know how the eye registers vision.</p>
<p>Sight is worth saving.</p>	<p>Using library and other resources read and discuss stories and plays about the blind, e.g. Helen Keller.</p> <p>Read about seeing-eye dogs.</p> <p>Discuss difficulties a blind person must face and demonstrate with games, such as Pinning Tail on Donkey, and describing objects by sound and feel only.</p>	<p>Show respect for blind persons.</p>

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
HEARING AND CARE OF EARS		
<p>Hearing is important for both learning and pleasure.</p>	<p>Use science lessons on sound as motivation for study of the ear. Show pictures, charts, and models of the ear. Read texts or other references and materials on ear and sense of hearing and balance. List possibilities of injury to ears, including foreign objects, violent blowing of nose, and infections related to colds, noise, and explosions. Perform science experiments with sound such as methods of testing hearing, amplifying sound. Identify the application of scientific principles to daily living activities. Plan for demonstration of use of audiometer. Explain school plan for testing hearing.</p>	<p>Observe pupils' interest and participation in determining their own level of hearing and following recommendations regarding care of ears. Test for understanding of vocabulary and relationships of ears and nasal infections and loss of hearing.</p>
HEART		
<p>The heart has four chambers and acts like a pump.</p>	<p>Look at a picture model or transparency of the heart. Secure a heart from the butcher for dissecting to show the chambers. Trace a drop of blood. Prepare slide of blood sample. Look at the slide under a microscope or microscope. Read about the composition of blood, its various jobs and types. Find out how many pupils know their blood types.</p>	<p>Have pupils write on:</p> <ul style="list-style-type: none"> • How the heart works. • How the heart varies with activity. • How to find your pulse. • What happens to pulse rate after exercising.

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
TEETH		
<p>Dental health can be maintained by eating properly, keeping teeth and mouth clean, and checking regularly with the dentist.</p>	<p>Secure a set of teeth from a dentist. List various causes of cavities. List ways of preventing cavities. Discuss nutrition and its effect on dental health. Why do dentists take X rays? How does fluoride help teeth? Compare loss of teeth from decay with loss of teeth from gum diseases.</p>	<p>Summarize ways to keep teeth and gums healthy.</p>
EXERCISE, REST, AND SLEEP		
<p>Exercise, rest, and sleep are important because they help to develop strong, healthy bodies.</p>	<p>Read and discuss information relating to exercise and rest, in health texts and other references, including poems and stories. Show appropriate films and filmstrips.</p>	<p>Observe and record signs of fatigue in class members. Periodically note increase or decrease in these signs.</p>
<p>Some conditions are more suitable for relaxation and sleep than others.</p>	<p>List questions and topics for further study: What happens when we sleep? Why do we sleep? Tell and write stories about activities before going to bed. Have pupils discuss TV programs they saw. Appraise for appropriateness of time and content. Discuss: "To begin a new day properly, go to bed early the night before." Keep notes and compare impressions and feelings immediately after rising, after going to bed at regular time, and on occasions after staying up much later. Discuss effects of short sleep hours, inconsistent sleep hours, regular sleep hours.</p>	<p>Plan for periodic check of bedtime and note changes in time and effects on pupils.</p>
<p>An alternating balance of activity and rest must be maintained to prevent breakdown of body tissues.</p>	<p>Have pupils make a 24-hour schedule of their own activity and rest periods. Note and record activity and rest habits of pets for a day or week.</p>	<p>Note individual progress in alternating active and rest periods.</p>

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
EXERCISE, REST, AND SLEEP—(Continued)		
<p>Regular sleep habits help to prepare for extensive activities.</p>	<p>Discuss values of active work or play being followed by a quiet period. List quiet activities suitable as alternates to strenuous activities. Have local pupil who has attained athletic and/or scholastic prominence talk to class about keeping fit, training rules, and team routines. Discuss physical education activities and schedule in relation to a balanced school day. Observe and play games and identify hidden rest periods of games.</p>	
<p>Rest helps body repair tissues and fight disease.</p>	<p>Try exercising regularly and note signs of increasing proficiency. Study movement and coordination of body after strenuous exercise and after a period of rest. Note effect of exercise on functions of heart and lung. Check pulse and respiration after periods of strenuous and quiet activities. Examine newspapers for information regarding post-accident care of injured athletes, of accident victims. Note provisions for rest and gradual increase in activities.</p>	

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION		
<p>Proper nutrition is important. Breakfast is a very important meal. Foods have different values for the body growth and maintenance.</p>	<p>Plan balanced meals and illustrate them. Have a tasting party using fruits or vegetables new to many pupils. Consult with lunchroom directors concerning foods pupils waste. Make a meal an adventure in geography, mathematics, and in agricultural resources and packaging—around the world with spices. Experiment with the chemistry of food and the effect of digestive juices and acids upon foods.</p>	<p>Appraise understanding of the four food groups. Figure calories and foods needed for energy. Note decrease in plate waste in the school lunchroom. Visit a food store to observe cost, packaging, and preservation. Learn how and where foods are produced.</p>
GROWTH AND DEVELOPMENT		
<p>There are many ways in which we grow.</p>	<p>Examine a model of the human torso. Discuss how the body works as a unit. Check on posture, walking, sitting, standing. How do posture habits affect the body? Ask pupils to list physical and emotional traits they would like to improve. Discuss plans pupils may develop to improve themselves. Read poems and other references that explain how "we tell on ourselves."</p>	
<p>Growing socially and emotionally.</p>	<p>Make list of new words to look up in a dictionary. Discuss emotional and social growth. Discuss the meaning of responsibility, adjustment, traits, emotions, attitudes, and consideration.</p>	<p>Check on use of new vocabulary. Observe pupils for improvement in posture, responsibility, and emotional growth.</p>

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
GROWTH AND DEVELOPMENT—(Continued)		
<p>Maturing brings many changes.</p>	<p>Discuss different paces of physical growth among children of the same age. Demonstrate by having pupils of different heights and weights in a classroom stand side by side. Emphasis should be placed on the normality of different rates of growth according to the individual's genetic potential, nutrition, health history, activity, rest, and other health practices.</p> <p>Ask pupils to study their own height and weight charts to determine relative gains in height and weight over period of school years. Compare with those of other children, and recognize that some grew faster than others in that interval of time.</p> <p>Show appropriate visual materials.</p> <p>Have pupils find and report on references about growing up.</p>	<p>Observe pupils to see if any are unduly conscious of being "different" in terms of development.</p>

FAMILY LIVING

<p>Happy family relationships involve working, planning, and playing, together.</p>	<p>Living happily with others involves cooperation. Have children write a paper on "What I can do to help my family."</p> <p>Show films on family life.</p> <p>Discuss "Activities of our Family". "Desirable Behavior at Home".</p> <p>Read about family life in other lands.</p>	<p>Observe pupils to see whether or not they are responsible in carrying out their assigned tasks.</p>
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INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
FAMILY LIVING—(Continued)		
<p>Personal rights and responsibilities of family members should be respected.</p>	<p>Identify personal rights that should be respected in a family such as not opening another person's mail, not reading the diaries of other members, letting others be alone at times.</p> <p>Discuss the importance of carrying through with a responsibility that one has accepted.</p> <p>Show films illustrating respect for family members, sharing at home.</p> <p>For more comprehensive planning in this area see: <i>Journal of School Health</i>, V. 37, N. 8a, <i>Growth Patterns and Sex Education: A Suggested Program Kindergarten Through Grade Twelve</i>.</p>	<p>Encourage pupils to evaluate themselves at home.</p>

UNDERSTANDING OURSELVES

<p>Facing reality helps solve problems.</p>	<p>Discuss and give reasons for situations that make us feel anger and frustration.</p> <p>Discuss reasons that emotions should be controlled.</p> <p>Show appropriate films.</p>	<p>Ask pupils to suggest ways to control their emotions.</p>
<p>Self-respect encourages respect from others.</p>	<p>Self-respect means being realistic about one's potential and limitations, and being self-confident.</p> <p>In order to be happy, we must like ourselves.</p> <p>Discuss how one feels when one is angry, jealous, fearful, happy, sad.</p>	<p>Observe whether or not pupils become conscious of the need to make their behavior acceptable.</p>
<p>Working and playing with others help us to understand ourselves.</p>	<p>Discuss the meaning of the "Golden Rule".</p> <p>Discuss the difference between arguing and expressing an opinion.</p> <p>Dramatize and discuss:</p> <ol style="list-style-type: none"> 1) Having a guest in your home 2) Behavior at parties 	<p>Have each pupil establish and put on paper his own "Code of Conduct."</p> <p>Plan parties which emphasize responsibility and sharing. Teachers may observe how students assume responsibility.</p>

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
GETTING ALONG WITH OTHERS		
<p>Manners and acceptable social conduct help us to get along with others.</p>	<p>Discuss:</p> <ul style="list-style-type: none"> • proper method of introducing. • importance of cooperation with others. • being a good listener. • reasons for sharing. <p>Role play some family situations that cause parent-child conflict.</p>	<p>Role play situations such as introducing a boy to a girl, a child to an adult, a man to a woman, and other situations suggested by pupils.</p> <p>Observe pupils to see if they have respect for parents and other adults.</p> <p>Observe whether or not pupils accept decisions of peers cheerfully.</p>
MAKING DECISIONS		
<p>In order to make wise decisions we should understand our own attitudes and the reasons for them.</p>	<p>Discuss the difficulty of always doing what we think is right, even if we want to. Why are we sometimes afraid to take a stand? What about our friends? Do they influence our decisions? Why?</p>	<p>Observe pupils when they are confronted with decision-making.</p>
<p>We are responsible for our own actions.</p>	<p>Stress independence and the reasons for not conforming at all times. Obeying one's parents is important, even if it means not doing what our friends are doing. Conforming may be dangerous for some, but not for others.</p>	<p>Discuss responsibilities to family.</p>
<p>The decisions we make now will influence the kind of men and women we will become.</p>	<p>Discuss the fact that some of the decisions pupils will eventually have to make will concern the use of alcohol, tobacco, and drugs. Study the facts about something before making a decision.</p> <p>What are the facts about alcohol, tobacco, and drugs? List the facts and the attitudes pupils have.</p> <p>Assign research concerning facts about alcohol, tobacco, and drugs.</p>	<p>Do pupils understand responsibility to oneself? Have pupils discuss the use and abuse of alcohol, tobacco, and drugs including glue sniffing.</p>

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
ENVIRONMENTAL HEALTH		
The community takes measures to prevent disease.	Discuss citywide rubbish pick-up services, street cleaning system, safe-water inspection, sewage treatment, purposes of hospitals, work of health department. Have children relate how citywide sanitation projects affect their home and family. Visit water supply or health department.	Ask pupils to summarize ways the community controls disease.
PREVENTION AND CONTROL OF DISEASES		
The individual has responsibilities in disease prevention.	Stress the importance of immunizations and vaccinations as measures to maintain the health of the individual and the community. Ask pupils to prepare a record of dates and kinds of vaccinations and immunizations. Many human diseases are communicable—i.e. the diseases are contagious under such conditions as: <ul style="list-style-type: none"> • contact with a person who has the disease • coughing • sneezing Ask pupils to add other conditions. Discuss childhood communicable diseases and how during the time of illness children were isolated, given shots, and given special care. Make posters showing how diseases are spread. Show relationship of health habits to communicable diseases.	Find out from health records if children have been properly immunized. Check to see that pupils know meanings of new words. Oral examination: Why should one wash his hands before eating? after using the toilet? when dirty?
Bacteria are both harmful and helpful.	Ask pupils to read and report on harmful bacteria and what ways they are harmful; on helpful bacteria and reasons they are helpful. Show films on helpful and harmful bacteria.	Have pupils tell what conditions are necessary for the growth of bacteria.

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
PREVENTION AND CONTROL OF DISEASES—(Continued)		
<p>Communities spend money to help keep people healthy.</p>	<p>List local community services which contribute to a healthful environment; specify contributions of each. Discuss some of the problems people would face if they had to take care of these needs individually. Discuss responsibility of individuals for community health.</p>	<p>Test for pupils' understanding of individual and community responsibilities regarding health.</p>
SAFETY AND FIRST AID		
<p>Each individual is responsible for accident prevention.</p>	<p>Study safety rules for pedestrians by schematically reproducing traffic lights and signs. Discuss their meaning. Show films on traffic safety. Discuss the role of the policeman in traffic safety:</p> <ul style="list-style-type: none"> • directing traffic • encouraging drivers to obey speed limits. 	<p>Review content material in the form of questions to pupils, holding up schematic drawings of traffic lights and signs.</p>
<p>Accident prevention also applies in the home.</p>	<p>Stress importance of keeping the house clean and keeping everything in place. Discuss examples of safe and hazardous situations in the home. Show films and filmstrips on home safety. Discuss ways of preventing accidents in the home.</p>	<p>Devise a home safety check list.</p>
<p>First aid can save lives.</p>	<p>In case of an accident, one should know what to do. Consult first aid references including Red Cross publications. Discuss different first aid procedures. Discuss sources of first aid information such as the Red Cross, Scouts, Safety Council. Examine and discuss equipment in first-aid kit.</p>	<p>Written examination: find out if pupils know what <i>not</i> to do and what to do in case of an accident.</p>

INTERMEDIATE GRADES (4-5-6)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SAFETY—(Continued)		
Safety rules for the playground protect against accidents.	Discuss that play equipment is safe if properly used and maintained. Discuss human causes of accidents on the playground—poor attitudes, selfishness, etc. List playground accidents experienced by pupils and try to determine possible causes. Show a film on playground safety.	Observe if children practice fair play on the playground. Set up safety rules for playground activities.
In every area of recreation one must assume responsibility in preventing accidents.	Stress importance of keeping equipment in working order. Discuss safety needs in every area of daily living.	Make up safety rules for one sport or for a recreation area of interest.
It is not safe to accept favors from strangers (candy, toys, treats, rides.)	Discuss the reasons that one should not accept gifts or rides from strangers.	Role play ways to refuse favors from strangers.

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REFERENCES FOR THE TEACHER

See page 90.

OUTLINE OF CONTENT FOR JUNIOR HIGH SCHOOL

- **Health Status**
- **Cleanliness and Grooming**
- Rest, Sleep, Relaxation**
- Exercise**
- Posture**
- Recreation and Leisure-Time Activities**
- Sensory Perception**
- Nutrition**
- Growth and Development**
- Understanding Ourselves**
- Personality**
- Getting Along with Others**
- Family Living**
- Alcohol**
- Drugs**
- Smoking and Tobacco**
- Environment**
- Air and Water Pollutions**
- Consumer Health**
- Disease**
- References**

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
HEALTH STATUS		
<p>An understanding of the basic structure and functions of the body systems provides a background for health maintenance.</p>	<p>Give a general review of the structure and functions of the systems of the body.</p>	<p>Use charts and models for a class test on basic body structure and functions.</p>
<p>Strengthening and protecting the heart are important.</p>	<p>Use a model of the heart to explain the functions of the heart in relation to the circulation of blood. Why is the right side of the heart larger than the left? What keeps the blood from flowing backward into the auricles? How much blood does each ventricle push into its artery at each heart beat? What causes the heart to beat? Discuss heart rates and the effect of activity upon heart rate. How is the speed of the heart controlled? How is the heart nourished? How does the heart rest?</p>	<p>Ask pupils to indicate ways to strengthen and protect their such as sufficient rest and sleep, appropriate activity, adequate nutrition, avoidance of smoking, control of emotions, and regular health check-ups.</p>
<p>The electrocardiograph measures heart action.</p>	<p>Arrange for a demonstration of an electrocardiograph by a local dealer. Follow the demonstration by showing how the electrocardiograph operates. Invite the school physician or a cardiologist to talk about some of the information electrocardiograms reveal. Discuss the work of the electrocardiograph in relation to the heart.</p>	<p>Write on "What the Electrocardiograph Tells About the Heart."</p>
<p>Personal appearance reflects one's health status.</p>	<p>Relate pertinent facts of physiology to variations in health status as revealed by observation of skin color; condition of hair; nails; skin; posture; alertness; fatigue; lassitude.</p>	
<p>There are wide individual variations in health status.</p>	<p>Point out the variations in growth characteristics of individuals as revealed by health records.</p>	<p>Evaluate personal health history forms.</p>
<p>Dental health is essential to total health.</p>	<p>Relate dental health to the individual's daily care, diet, also periodic check-ups. Discuss the importance of a clean smile for social acceptance. Discuss attitudes toward dental care. Ask the school dental hygienist or the dentist to talk about caries, nutrition, orthodontia, fluoridation.</p>	<p>Evaluate individual dental health reports.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	CONCEPTS
HEALTH STATUS—(Continued)		
Periodic medical, dental, vision, and hearing examinations are necessary in determining the health status of individuals.	Review a sample health record form and discuss the items and overall health records that are kept up to date by the school.	Have pupils summarize their concepts of health status.
Recognition and correction of defects where possible are important parts of a health program.	Discuss methods of follow-up including resources for the correction of remediable defects revealed by periodic vision screening and hearing tests, medical and dental check-ups.	Investigate current resources for dental and medical care.
Certain practices contribute toward maintaining health.	Discuss the ways habits are developed and the ways to form desirable health habits.	
CLEANLINESS AND GROOMING		
Cleanliness and grooming affect personality.	Set up basic standards for cleanliness and grooming for young adolescents.	Give self-tests on physical appearance. Repeat at end of year. Compare findings.
Grooming affects personal appearance.	Discuss the elements of grooming needed for school, a "date", a job.	Fill out grooming checklists.
REST, SLEEP, RELAXATION		
Adequate rest, sleep, and relaxation are reflected in success in school work and play.	Discuss individual needs for sleep and the importance of periods of relaxation during the day.	Set up a work-study-play schedule for one week. Evaluate and make adjustments if necessary.

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
EXERCISE		
Sedentary patterns of living indicate the need of a daily program of exercise.	Compare daily activities of early Americans with the limited activity of modern life.	Keep a weekly record of exercise by adding the time spent each day in vigorous physical activity.
Exercise increases heart-lung capacity.	Explain cardio-respiratory endurance.	Review the functions of the respiratory and circulatory systems.
During respiration carbon dioxide is exhaled from the body.	Ask pupils to exhale into limewater and observe the change in the limewater. The CO ₂ from the breath has combined with the limewater to form insoluble calcium carbonate which appears as a white precipitate. Why do people exhale CO ₂ ? What is the source of CO ₂ in the body? How does CO ₂ differ from CO? Under what conditions do people encounter CO?	Compare CO ₂ and CO, and the hazards of each. Compare the changes in the air caused by the breathing of plants and of people.
Pulse rate increases with exercise. Exercise increases the efficiency of the heart and blood vessels.	Experiment to find out variations of the pulse before and after exercise. Materials: Table, blanket, stop watch. Procedure: Ask a boy and a girl to volunteer to serve as subjects for the experiment. Cover the table with the blanket. Have subjects lie down, one at a time, and rest for two minutes. Take each subject's pulse rate. Record. Ask each subject to stand. Take pulse rate. Record. Ask subjects to hop 20 times on each foot separately. Ask subjects to sit. Take pulse rate immediately. Record. Have subjects remain seated for two minutes. Take pulse rate. Record. Results: Note the differences of the rates when lying down, standing, immediately after exercise, and two minutes after exercise. Discuss the response of the heart to rest and to exercise.	Analyze the functions of exercise and the values of exercise to growth and development of the body.
Exercise contributes toward increasing speed, agility, and endurance.	Explain how muscles improve with use, deteriorate with inactivity. Ask the physical education teacher to talk with the class on activities that build speed, strength, agility, endurance.	Have pupils analyze their own physical fitness tests given in physical education classes.

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
POSTURE		
Efficient posture results from muscle control through exercise.	Demonstrate and practice posture control in standing, walking, and sitting. Discuss causes of poor posture.	Rate pupils on periodic posture tests. Note progress.
A planned program of exercise is needed by every adolescent.	Discuss minimum needs for exercise given in the school program. Point out the need for additional vigorous daily exercise, preferably outdoors.	
Three areas of the pupil's day provide opportunities for exercise.	Explain how the school physical education periods, extracurricular activities, recreation and leisure-time activities may contribute to physical activity.	
RECREATION AND LEISURE TIME ACTIVITIES		
Participation in recreation and leisure time activities is needed for physical fitness.	Discuss types of sports, that is, individual and team sports, and their advantages.	Indicate interest in recreational activities by filling out a checklist.
Fitness is the ability to meet daily needs and extra demands.	Discuss the interrelationships among physical, emotional, mental, and social health.	Evaluate the outcomes of total health in terms of achieving goals.
SENSORY PERCEPTION		
Sensory perception depends to some extent on understanding and care of eyes and vision, ears and hearing.	Review the nature of the senses of seeing, hearing, tasting, smelling, touching.	Summarize the importance of the eyes and ears in sensory perception.

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SENSORY PERCEPTION—(Continued)		
<p>Some areas of the skin are more sensitive to touch than others.</p>	<p>Experiment to find out the distance between nerve endings on the back of the hand, the arm, and the forehead. Materials: Cork, two straight pins. Procedure: Put two straight pins diagonally into a cork stopper so that the pin points touch. Locate those nerve endings which are sensitive to touch by applying the heads of the two pins to the skin. Probe areas on the back of the hand, on the arm, and the forehead by changing the distance between the pinheads. (When only one pinhead can be felt, the distance between the nerve endings in one area has been determined.) Obtain several figures for each part of the body being studied and average them. Compare the average distance and explain the reason the figures obtained for each area are different. Discuss the importance of the skin as an organ of sensation. Discuss touch as an important avenue of learning about environment.</p>	<p>Ask pupils to relate sensitivity to touch with adaptation to environment.</p>
<p>Defects of vision may be caused by hereditary structure or impairment of function of the eyes.</p>	<p>Review how we see. Illustrate the causes of farsightedness, nearsightedness, astigmatism. Discuss such eye problems as styes, pink eye, glaucoma, cataract.</p>	<p>Analyze results of screening tests of vision.</p>
<p>The lens of the eye adjusts to light and distance.</p>	<p>Experiment to find out how the eye adjusts to light and distance. Procedure: Divide class into small groups. Ask one member in each group to look at an object in bright light. Ask the other members of the group to observe the person's eyes for changes in size of pupils. Result: The pupil of the eye appears small or large as the iris contracts or expands in controlling the amount of light entering the eye. Procedure: Ask pupils to open their books and hold them at arm's length, then close their eyes until they are told to open them. Tell pupils to open their eyes and try to read. Result: Vision will be blurred temporarily until the eyes make the adjustment for distance. Discuss how the eye adjusts to light and distance in helping people see objects clearly. Discuss the proper distance from the eyes one should hold a book when reading. What is the significance of shorter and longer distances?</p>	<p>Ask pupils to check the distances they hold their books when reading. Interpret.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SENSORY PERCEPTION—(Continued)		
Vision defects can be tested accurately.	Explain vision screening and the meaning of 20/20 vision. Explain the services of the ophthalmologist, optometrist, optician.	Invite the school nurse to the classroom to demonstrate vision screening.
An eye doctor should be called immediately after an eye injury.	Discuss first aid for eye injuries.	
Daily eye care can improve efficiency of the eyes.	Discuss guidelines for eye care such as checking vision periodically, securing adequate light for reading and work, resting eyes frequently if doing close work, protecting eyes from bright sunlight, keeping a light on in the room when viewing television, consulting an eye physician if eyes itch or hurt for more than a couple of days, protecting eyes from injury.	
Hearing defects may occur in any of the three major parts of the ear.	Review structure and functions of the ear. Review how we hear. Discuss such hearing problems as wax in the ear, fluid in the middle ear, deafness, otosclerosis, nerve deafness.	Conduct a whisper test to check pupils' hearing.
Hearing can be tested by an audiometer.	Explain what an audiometer is (an electrified tuning fork). Pitch and intensity are recorded on an audiogram.	Ask the school nurse or audiometrist to demonstrate a hearing test on a pitch range audiometer.
Correction of some hearing loss is possible.	Discuss care of the ears including cleanliness; avoidance of infection from towels, hands, contact with others; care in swimming and diving; treatment of nose and throat infections by a physician; avoidance of blows to the ears; use of hearing aid devices when prescribed to improve hearing.	
The adolescent has the responsibility for the care of his body and the promotion of his own health.	Summarize total health status in terms of physical, mental, emotional, and social health.	Have pupils write an evaluation of their own physical health.

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION		
<p>Adequate nutrition is important in adolescence to provide for rapid growth and increased physical activity.</p>	<p>Check eating habits against the basic four food groups and adequate caloric intake to meet individual needs. Stress the importance of regular meals and eating a variety of foods.</p>	<p>Evaluate records of food intake for a period of one week. Revise the diet to meet needs if records so indicate.</p>
<p>Many foods have starch, especially fruits, vegetables, and cereals.</p>	<p>Experiment to find out if there is starch in various foods. Materials: Potato and other vegetables, apples and other fruits, bread, uncooked cereals, other foods as desired. Procedure: Put starch in water and stir. Put a few drops of iodine in the solution. Note the change in color. Cut off thin slices of potato, apple, other foods, and put slices on a plate. Place a drop of iodine on each slice. Result: A dark blue to purple color forms on the slices of food that contain starch. Note which foods contain starch and which do not. Discuss different sources of starch. To what kind of nutrients does starch belong? From the tables of food composition and nutritive values, discuss the occurrence of carbohydrates in foods.</p>	<p>Ask pupils to write about some of the effects on the body when one eats many foods high in carbohydrates.</p>
<p>Sugar is found in many foods other than candy.</p>	<p>Experiment to find out how to test foods for sugar. Materials: Test tubes and holders; Bunsen burner or source of flame; pieces of apple, onion, hard-cooked egg white, bananas, rice, milk, and other foods as desired; eye droppers; Fehling's Solutions or Benedict's Solution. Procedure: Into separate test tubes put a few particles of the different foods to be tested so that there is one food in each test tube. Fill each test tube one-fourth full with Fehling's Solutions or Benedict's Solution. Boil the mixture in each test tube gently. Observe any color changes. Results: Those foods containing sugar will react with the copper in the test solution to form yellow, orange, or red precipitates of cuprous oxide. Record the results of the experiment, indicating the foods that contain sugar. Into what group of nutrients is sugar classified? From tables of food composition and nutritive values, discuss the occurrence of carbohydrates in foods. Discuss the effects of excessive intake of sugar in the diet, including effects on appetite, teeth, weight.</p>	<p>Ask pupils to relate the place of carbohydrates in the basic food groups.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION—(Continued)		
<p>Some foods have "hidden" fats.</p>	<p>Experiment to find out which foods contain fat. Materials: Various samples of food, unglazed paper. Procedure: Test a small amount of each food by pressing it against a piece of unglazed paper. Note "grease spot" or translucent area on the paper. Results: Fat makes a translucent spot on unglazed paper. Record the results of the experiment, indicating the foods that contain fat. From tables of food composition and nutritive values, discuss the occurrence of fats in foods.</p>	<p>Evaluate the importance of fat in the diet and the effects of excessive intake of fat. Compare fats from vegetable and animal sources.</p>
<p>Excellent sources of protein are meat, fish, milk, eggs.</p>	<p>Experiment to find out which foods contain protein. Materials: Various samples of food, nitric acid, test tubes and holders, evaporating dishes, Bunsen burner with ring stand and wire gauze or an electric plate and wire gauze, piece of wool cloth. Procedure: Put a small amount of each food to be tested in separate test tubes. Add 5 ml. of nitric acid to each tube and heat gently. If protein is present, a yellow-orange color will appear. Burn a few threads of wool cloth and note the odor. Put a small amount of food to be tested in an evaporating dish. Heat the dish until the food begins to char. Note the odor of burning wool. Results: The nitrogen in protein is responsible for the color reaction with nitric acid and the odor of burning wool. Record the results of the experiments, indicating the foods that contain protein. From tables of food composition and nutritive values, discuss the occurrence of protein in foods.</p>	<p>Ask pupils to relate the place of protein in the basic food groups. Ask pupils to calculate the amount of protein eaten during a given day and evaluate in terms of recommended daily allowance.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION—(Continued)		
<p>Vitamin D is needed for growth.</p>	<p>Experiment to find out the effects of a diet with or without Vitamin D.</p> <p>Materials: Yellow corn, gluten flour, sodium chloride, calcium carbonate, viosterol, water (an adequate daily supply), six albino rats, two animal cages for two groups of three rats each.</p> <p>Recommended diet: 76 parts yellow corn, 20 parts gluten flour, 1 part sodium chloride, 3 parts calcium carbonate.</p> <p>Procedure: Obtain 6 albino rats about 25 days old, 4 to 6 days past weaning. Put 3 rats in each cage. Feed the recommended diet to both groups of rats. Add 20 drops of viosterol per 1000 g. of diet to the rats which are to remain healthy. Add nothing to the diet of the other rats. Keep both cages in a place free from exposure to the direct rays of the sun and to drafts. Weigh all rats daily. Observe rats for changes in appearance and for changes in movement. Record significant observations until the end of the experiment.</p> <p>Results: The Vitamin D deficient group will weigh less (observable within 3 weeks), cease to grow, have wobbly gait, have ruffled fur.</p> <p>Follow-up: After the rats have been subjected to a deficient diet for a long enough period so that the symptoms are visible, add 20 drops of viosterol daily to their diet. Weight will be gained, growth will begin, and fur will become smooth within a few days. The experiment should not last more than 4 weeks. Make a graph showing the growth of the two groups of rats and indicate the recuperation period for the Vitamin D deficient rats.</p> <p>Discuss the effects of Vitamin D deficiency in people. Why is this deficiency no longer prevalent?</p>	<p>Ask pupils to identify the names of foods that are rich in Vitamin D.</p> <p>Ask pupils to prepare a written report concerning the value of Vitamin D in the diet.</p> <p>Review some of the developments in food processing that have contributed to the near elimination of rickets.</p>
<p>Nutrition is a recent science that has solved many health problems.</p>	<p>Ask pupils to report on discoveries that opened the way to the early scientific work in foods and nutrition. Prepare brief summaries of the contributions of famous scientists in foods and nutrition. Discuss the changes these discoveries have made in food and eating practices. Ask pupils to read and report on nutritional deficiency diseases which persist in the world today. Collect information about the conquests of such diseases.</p>	<p>Identify current health problems related to foods and nutrition.</p> <p>Suggest possible future problems to be solved.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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NUTRITION—(Continued)

<p>Basic food guides are helpful in choosing the right kinds of foods every day.</p>	<p>Ask pupils to study basic food groups and plan a day's meals that include food from these groups. Develop a nutrition skit, "What's Eating You?" and present it to the class. Construct an electrically operated exhibit "Nutrition Quiz for Junior High School Boys and Girls", and set it up for class or school use. Change the quiz information periodically. Prepare a nutrition exhibit emphasizing basic food groups, nutrients, and meal planning. Arrange for pupils to set up and man a booth on nutrition at an appropriate community program to acquaint the public with the importance of adequate nutrition. Conduct a city or county-wide poster contest on nutrition for high school pupils, and arrange for appropriate awards. Organize a city or county-wide "Thoughts for Food" panel presentation by pupils for homemakers at an Achievement Day Program or a school assembly. Prepare two panel teams and two skit teams of pupils to present programs on intelligent food habits. Announce the availability of the teams for school assemblies and for youth and adult organizations.</p>	<p>Check menus with basic food guide. Observe foods selected by pupils at recess and lunch periods before emphasis on food practices. Follow up by a later similar observation. Check for improvement.</p>
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GROWTH AND DEVELOPMENT

<p>In early adolescence the range of individual differences in body development is greater than at any other time.</p>	<p>Keep an individual growth record of height and weight. Compare the rate of growth with the average rate of the pupils in the class.</p>	<p>Relate individual growth and development patterns to personality traits.</p>
<p>No two people are alike in body build. Differences in growth rates may result in emotional problems.</p>	<p>Discuss individual variations of body build of pupils in the class. Note variations among boys and girls. Discuss problems which may arise from individual differences.</p>	<p>Write statements on how to overcome or meet emotional problems due to different growth rates.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
UNDERSTANDING OURSELVES		
<p>Acceptable behavior depends on meeting emotional needs.</p> <p>All people have basic emotional needs.</p> <p>A knowledge of growth and development can help one identify his needs.</p>	<p>Read and discuss a biography. Report on the physical and emotional characteristics of the subject and how difficult situations were handled.</p> <p>Discuss basic emotional needs such as love, acceptance, belonging, security, control, consistency, intellectual stimulation, success, independence, sense of worth.</p> <p>Chart a growth pattern from known statistics in growth and development, perhaps using health record data. Interpret the chart in terms of needs.</p>	<p>Trace basic emotional needs of people in several walks of life.</p>
PERSONALITY		
<p>Personality is the total of one's characteristics.</p> <p>Behavior is an expression of personality. Personality can be improved.</p>	<p>Have pupils fill out a personality questionnaire. Identify behavior characteristics.</p> <p>Ask pupils to identify aspects of their personality they wish to improve, and make an action program outlining plans for improvement. Include</p> <ul style="list-style-type: none"> The problem (What?) Objectives Ways and means (How?) Persons involved (Who?) Time schedule (When?) Self-evaluation 	<p>Tabulate data from personality questionnaires and report findings.</p> <p>Prepare a check sheet pupils may use in evaluating how well the objectives of the action program were met.</p>
GETTING ALONG WITH OTHERS		
<p>Frustrations experienced in meeting needs can reflect in undesirable behavior.</p>	<p>Discuss "showing off", aggressiveness, crying, bragging, avoiding others, rebellion in relation to meeting basic needs.</p>	<p>Role-play a situation of undesirable behavior. Ask the class to suggest corrections, then re-enact the situation incorporating suggested changes.</p>
<p>Adolescents can build self-confidence.</p>	<p>Show a film related to behavior. I. ways in which self-confidence can be developed.</p> <p>Analyze the lives of some successful people.</p>	<p>Have pupils write their own biographies.</p> <p>Evaluate in terms of self-esteem.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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GETTING ALONG WITH OTHERS—(Continued)

<p>One's heredity, environment, and goals influence individual behavior and determine personality.</p> <p>An appreciation of art, music, and literature enriches personality and helps in communicating with others.</p>	<p>Discuss characteristics that are inherited and characteristics that are developed in response to environment.</p> <p>Ask each pupil to write what he wishes to accomplish in life, and identify his strengths and weaknesses in achieving his goals.</p> <p>Study the role of the arts in personality development.</p>	<p>Review family characteristics.</p> <p>Give a standard interest or vocational test and have pupils interpret their scores.</p>
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FAMILY LIVING

	<p>Consult available references and guides on family life education for appropriate concepts, learning experiences or activities, and suggestions for evaluation. Particularly see The American School Health Association's guide <i>Growth Patterns and Sex Education: A Suggested Program Kindergarten Through Grade Twelve, Vol. 37, No. 6a.</i></p>	
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ALCOHOL

<p>The consumption of alcoholic beverages causes changes in behavior and personality.</p>	<p>Discuss reasons that young people start to drink alcoholic beverages such as peer influence, curiosity, example of adults, lack of knowledge of the effects.</p> <p>Give a pre-test on the effects of alcohol in the body. Use test results as a point of departure for studying about the effects of alcohol in the body, and as a reference later when repeating the test to appraise increase in knowledge.</p>	<p>Evaluate reasons that people do or do not drink alcoholic beverages.</p>
<p>The use of alcohol has predictable effects on the human body.</p>	<p>Show a film on the effects of alcohol in the body. Discuss these effects. Ask pupils to find and report on studies concerning the effects of alcoholic beverages on the brain with consequent effects on judgment, perception, and all other functions controlled by the brain.</p> <p>Evaluate the "food value" of alcohol.</p>	<p>Repeat the knowledge test on the effects of alcohol in the body.</p>
<p>The use of alcohol is the concern of society as well as the individual.</p>	<p>Discuss some of the problems caused by drinking alcohol such as intoxication; potential alcoholism; expense, absenteeism from work; associated illnesses, accidents, and crime; economic losses to the community; family problems.</p>	

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
ALCOHOL—(Continued)		
The use of alcohol is expensive to the individual and to the community.	Contact the local Police Department for a speaker or for information about tests for intoxication, statistics on drinking drivers and accidents, cost to taxpayers of the misuse of alcohol.	Chart statistics on accidents due to drinking drivers.
The use of alcoholic beverages is an individual choice.	Discuss points of view of various religions and cultures concerning the use of alcoholic beverages. Discuss the individual responsibility of teenagers for making informed choices in relation to the use of alcoholic beverages.	Evaluate summary statements of pupils on their own decisions about the use of alcoholic beverages.
DRUGS		
The past 25 years have seen the development and use of many new drugs.	Discuss the decrease in incidence of disease and the development of new drugs such as antibiotics, sulfa drugs, diuretics, tranquilizers, antihistamines.	
Drugs have played an important part in the spectacular reduction of mortality in recent years.	Study the various uses of drugs as headache remedies, pain killers, sleeping pills, pep pills, diet aids, laxatives, reality modifiers.	Study labels of common drugs found in the home. Evaluate directions and warnings on the products.
Drugs have many effects including "side effects" on people.	Study the literature and transparencies available from the Food and Drug Administration concerning drugs and their effects. Discuss the work of the FDA in protecting the public against harmful drugs. Discuss prescription drugs as to kinds and legal restrictions. Discuss non-prescription drugs (those sold over the counter) as to labeling and the importance of reading and following directions. Consider television as a means of promoting "over-the-counter" drug sales.	Evaluate some of the advertising claims about various brands of aspirin.
The illegal or excessive use of drugs is called drug abuse. Drug abuse is a manifestation of personal inadequacy to deal with various facets of life.	Analyze the reasons that people take drugs. Discuss the importance of being adequate persons who do not use "crutches" but face their problems and try to solve them.	Ask pupils to list the attributes of "adequate" people.

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
DRUGS—(Continued)		
The illegal use of drugs is of great concern today.	Discuss drug dependence. Relate the expense of drug dependency to crime.	Secure from local police statistics on drug abuse among juveniles and discuss local situation.
The drugs abused today fall into several categories.	Define stimulants and discuss the effects of pep pills, bennies, and speed. Define depressants and discuss the effects of barbiturates and narcotics. Show films illustrating the effects of the abuse of stimulants and depressants. Show films on marihuana and LSP, and discuss their effects.	Give a test on stimulant and depressant drugs including classification, effects on the body, and legal control. Give a test on effects of drugs on the nervous system.
One of the serious consequences of drug abuse is drug dependency.	Distinguish between psychological and physical dependence. Analyze the drugs studied in terms of their dependency effects. Consider the effects of psychological dependence (on alcohol, tobacco, or drugs) on the individual and his goals in life.	Develop a role-playing situation in which pupils make decisions concerning drug abuse in terms of what they have learned about it.
The individual has various responsibilities in relation to drug abuse.	Discuss the statement "The only safe way to consider drugs is not even to try them once." Discuss such responsibilities of the individual as learning the truth about drugs, resisting efforts to experiment, helping others to know the dangers, reporting evidence of drugs to parents or authorities, knowing the laws that protect people from drug abuses.	Summarize the responsibilities of an individual toward drug abuse in the community.

SMOKING AND TOBACCO

Advertising is a prime factor in the widespread use of tobacco today.	Discuss advertising media: radio, TV, magazines, newspapers. Analyze tobacco advertising as to types of appeal such as health, social status, athletic ability. Bring in a variety of tobacco ads and have the pupils study the accuracy of their appeal. Have pupils compose and visualize anti-smoking commercials for school publications and local radio-TV stations.	Culminate with a project that displays advertisements and questions their validity.
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JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SMOKING AND TOBACCO—(Continued)		
<p>Athletes are advised against smoking because it reduces breathing efficiency.</p>	<p>Experiment to find out how lung capacity is measured. Set up an apparatus consisting of a half-gallon bottle filled two-thirds full of water and closed with a two-holed rubber stopper. In the stopper is a short inlet tube into which a person blows, and a long exit tube extending from the bottom of the water in the bottle to a graduate cylinder adjacent to the bottle. As the person blows through the tube, the pressure of his breath forces water out of the bottle into the graduate cylinder. The volume of water displaced each time the person exhales is a measure of the amount of air displaced from his lungs. By use of a long rubber tube connected to the inlet tube the volume of water displaced when the person is exercising, such as running in place, may be measured.</p> <p>Have a committee of volunteers interview coaches from the school staff and from neighboring high schools to find out what the coaches advise their athletes about smoking. Summarize the information and report to the class.</p>	
<p>Much research has shown that smoking is dangerous to health.</p>	<p>Ask for volunteers to contact the local offices of the American Cancer Society, the Heart Association, and the Tuberculosis and Health Association for information about the effects of smoking on health.</p> <p>Invite a resource person from one of these agencies or from the local health department or from the nearest Interagency Council on Smoking and Health to demonstrate and discuss effects of smoking on health.</p> <p>Set up a "smoking machine" and watch the accumulation of tars.</p> <p>Pass the smoke through filter paper and note the tar residue on the paper. Compare the relative amounts of residue from filtertip and regular cigarettes. Are filtertip cigarettes "safe"?</p> <p>Place a small amount of the tar with cotton or a paint brush on the stem of a growing plant, also on the tongue of a frog. Observe immediate results with the frog. How much longer does it take for changes to be observed with the plant?</p> <p>Bubble smoke into a flask containing water in which a gold fish is swimming. What happens? Discuss effects of smoking on the body including influences on the circulatory, respiratory, digestive, excretory, and nervous systems.</p> <p>Invite the school nurse or physician or dentist to discuss pupils' questions about smoking.</p> <p>Culminate the study with a panel discussion on "To Smoke or Not to Smoke".</p>	<p>Ask pupils to write a short paper on the pros and cons of smoking.</p> <p>Ask pupils to prepare a series of articles on "To Smoke or Not to Smoke" appropriate for the school paper.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SMOKING AND TOBACCO—(Continued)		
<p>The person who once begins to smoke is likely to develop a smoking habit that becomes a part of his behavior pattern and is exceedingly difficult to break.</p>	<p>Discuss the interrelationships of smoking and personality.</p>	<p>Evaluate written statements on pupils' decisions about smoking.</p>

ENVIRONMENT

<p>Green plants are necessary for life.</p>	<p>Ask pupils to find out and report information to support or refute the statement "All forms of life—plants, animals, humans—depend upon green plants for survival." Include the role of green plants in respiration and nutrition. Formulate a conclusion with the class which is justified by the reports. Discuss the role of green plants in space travel.</p>	<p>Weigh the possibility of life on other planets.</p>
<p>Man's growth depends on both heredity and environment.</p>	<p>Discuss some of the physical characteristics that are inherited. Ask pupils to identify and describe conditions and practices in the environment that affect growth and personality. Guide pupils in analyzing the adjustments necessary for living on the desert, in the mountains, in extremely cold areas, in coastal areas, in the tropics. Compare the height and weight records of boys and girls in the 7th, 8th, and 9th grades. Consult the school nurse for this information. Have the class summarize the findings in graphic form. Make a time line and pictorial record of the ages of man. Trace the changes in cultural patterns pertaining to health practices. From current knowledge predict some of the future cultural health patterns of man. From current knowledge in anthropology, predict some of the physical characteristics of man in the future.</p>	<p>Weigh the relative importance of heredity and environment on growth.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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ENVIRONMENT—(Continued)

<p>Being aware of environmental conditions helps protect health.</p>	<p>Ask a committee of pupils to arrange several situations that may be used to test the ability of the class to observe and evaluate environmental situations in terms of desirable health practices.</p> <p>Pupils may respond orally or in writing. A convenient response sheet may be prepared by ruling off two columns, one of which is headed desirable health practices, the other undesirable. Pupils may indicate their responses in the appropriate column. Situations may involve ventilation, lighting, heating, wearing of jackets or coats in the classroom, handling of food.</p> <p>Ask the committee who assisted in arranging the situations to discuss those that were not observed by any of the pupils.</p>	<p>Observe pupils for improvements in health practices. Follow up occasionally with opportunities for pupils to evaluate additional health situations.</p>
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AIR AND WATER POLLUTION

	<p>Consult local, state and national sources for information on air pollution and water pollution such as the nature and identification of the pollutants, their sources, effects on life and health, possible solutions to these problems, and progress in controlling and eliminating them.</p> <p>Ask pupils what they as individuals can contribute to the reduction of air and water pollutants.</p>	
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JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
CONSUMER HEALTH		
<p>Health misinformation is based on superstition, fear and ignorance.</p>	<p>Ask pupils to collect and report information on primitive beliefs about the prevention and cure of disease. Try to find the reasons for these beliefs.</p> <p>Discuss current fallacies connected with health knowledge, attitudes, and practices. Try to trace the origin of these. Search for facts that disprove these fallacies.</p> <p>Cite scientific facts that disprove fake and misleading advertisements based on emotional appeal and fads.</p>	<p>Devise ways to overcome fallacies with facts. Formulate criteria to use in evaluating accuracy of health advertisements.</p>
<p>Health agencies contribute to solving health problems through education, research, and services.</p>	<p>Discuss the differences between official and voluntary health agencies.</p> <p>Ask for volunteers to obtain and report information from official and voluntary health agencies concerning organizational structure, budget, and program. Are school health committees or councils similar to these health agencies? Explain.</p> <p>Write to authoritative agencies such as the American Medical Association, the Food and Drug Administration, American Heart Association, American Cancer Society, and the National Tuberculosis and Respiratory Disease Association.</p>	<p>Compare the school health committees or councils with community health agencies. Prepare a directory of the agencies contacted and their purposes.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
DISEASE		
<p>Absences due to colds may be reduced by personal responsibility for following recommended health practices for the prevention and care of colds.</p>	<p>Instruct pupils to keep a record of the kind of weather each day for one month, and the number of absences due to colds. Calculate the loss of school time due to colds. Analyze the data and make recommendations for the reduction of colds.</p> <p>Discuss ways of preventing the spread of colds: cover coughs and sneezes, wash hands before eating and after toileting, get sufficient rest and sleep, eat an adequate diet, wear appropriate clothing for the weather, have daily outdoor exercise.</p> <p>Discuss ways of caring for a cold: stay home beginning the first day, keep warm, drink plenty of fluids (water, fruit and vegetable juices, soup), cover coughs and sneezes, consult a physician if improvement does not occur in a couple of days.</p> <p>Experiment to find out the extent of bacterial growth from coughs, sneezes, and dirty hands.</p> <p>Materials: petri dishes (or metal lids and glass squares), aluminum foil, nutrient agar, beaker, flask, oven, pressure cooker.</p> <p>Procedure: Wash and dry petri dishes (or metal lids and glass squares). Sterilize the dishes or jar lids and squares by heating in an oven at 425° F for 2 hrs. Prepare a nutrient agar solution, pour into flask, cover opening with two or three layers of aluminum foil, and sterilize in a pressure cooker at 15 lbs. for 15 min. Cool the solution to 50° C and pour into petri dishes or jar lids. Cover dishes or lids promptly. Let stand until the medium gels. Set aside two dishes to serve as controls. Label and date. Cough and sneeze into another petri dish or lid, label, and date. In a fourth dish or lid, touch the medium with a dirty finger, label, and date. Wash hand thoroughly with soap and water and touch the medium in the fifth dish or lid, label, and date. Put the petri dishes or lids in a warm, dark place and observe at least once daily for a week. Watch for colonies of bacteria to develop in the contaminated dishes or lids. Ask pupils to explain what happened.</p>	<p>Plot graphs of absences due to colds. Study these graphs to find out if any changes occurred during the month. Use the graphs for comparison with absence rates due to colds during other months of the school year. Compare the extent of bacterial growth from the different sources. Interpret the findings in terms of some of the ways to prevent the spread of colds.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
DISEASE—(Continued)		
<p>Microorganisms are present even in healthy people.</p>	<p>Experiment to find out whether microorganisms are present even in a healthy person. Materials: 3 petri dishes or jar lids for each pupil, agar or gelatin, cotton swabs. Procedure: The teacher may demonstrate the preparation of petri dishes (or jar lids) with agar or gelatin medium as described in the previous experiment on bacterial growth from coughs or sneezes. Then pupils may carry out individual experiments. Take specimens on swabs from skin and from inside the cheek and nose. Touch swabs on agar or gelatine in the 3 dishes or lids. Cover dishes or lids and place in a warm, dark place. Observe any growth. Identify different types of growth on the same culture and on different cultures. Identify which of the three cultures has the most growth. Explain. Discuss the relation between harmful microorganisms and disease. How does the body build and maintain resistance against disease?</p>	<p>Ask pupils to state what insight the experiment has given them concerning the presence of microorganisms in their bodies. Discuss some of the ways of protecting oneself and others from disease-producing microorganisms.</p>
<p>Malaria can be eradicated by destroying the anopheles mosquito.</p>	<p>Experiment to show how malaria-bearing mosquitoes may be eliminated. Materials: Jar of stagnant water containing mosquito larvae, some lubricating oil. Procedure: Observe the mosquito larvae in the water. Note that they come to the surface for air. Place enough oil on the water so it is completely covered with oil. What effect does the oil have on the mosquito larvae? Why? Do all mosquitoes carry malaria? Explain. In which parts of the world is malaria most prevalent? Why? What progress has the World Health Organization made in its campaign to eradicate malaria?</p>	<p>Ask pupils to explain how a healthy environment prevents the transmission of malaria. Summarize ways to eradicate malaria.</p>

JUNIOR HIGH SCHOOL (7, 8, 9)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
DISEASE—(Continued)		
<p>Disease may be spread by direct or indirect contact.</p>	<p>Materials: Nutrient agar, petri dishes, beaker, flask, aluminum foil, pressure cooker, oven.</p> <p>Procedure: Wash 8 or 10 petri dishes thoroughly, drain, and sterilize in an oven at 425° F for 2 hrs. Prepare a nutrient agar solution, pour into flask, cover opening with 2 or 3 layers of aluminum foil, and sterilize in a pressure cooker at 15 lbs. for 15 min. Cool the solution to 50° C and pour into petri dishes, filling each dish half full. Cover each dish promptly. Let stand until medium gels. Ask pupils to proceed with the experiment as follows: Open one dish and expose it to the air for a few minutes by carrying the open dish around in the classroom. Cover. Open another dish and touch the medium with a finger. Cover. Cough over the medium in a third dish and cover promptly. Sneeze over the medium in a fourth dish. Touch a clean tissue to the medium in a fifth dish. Touch a used tissue to the medium in a sixth dish. Select other objects to test as desired. Leave 2 dishes closed and uncontaminated to serve as controls. Put the dishes in a warm, dark place. Observe daily for changes. Compare contaminated with uncontaminated dishes. Interpret the findings. If possible, prepare microscopic slides from different colonies and observe under the microscope. Describe the different kinds of organisms seen. Are all microorganisms harmful?</p> <p>Discuss ways of transmitting disease. Which of these ways are direct contact? Which are indirect contact?</p> <p>What is the role of vectors? How may these be controlled?</p> <p>Why are cleanliness and immunization important?</p> <p>Use "tracer powder" to simulate spread of microorganisms. Before pupils enter classroom place powder on desk-tops, books, papers, and other areas. During class the pupils will contact the powder. After 15-20 min. darken the room and illuminate the tracer powder with an ultraviolet light. Discuss the ease and modes of transmission of the powder to objects and persons. Relate to spread of microorganisms.</p>	<p>Ask pupils to summarize reasons for covering coughs and sneezes, and the effects of proper ventilation and sunlight on the spread of disease.</p> <p>Prepare an exhibit showing routes of disease transmission and methods of interrupting these routes for controlling the spread of disease.</p>

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REFERENCE FOR THE TEACHER

See page 90.

OUTLINE OF CONTENT FOR SENIOR HIGH SCHOOL

Health Status

Fatigue and Sleep

Exercise

Recreational Activities

Sensory Perception

Nutrition

Growth and Development Toward Maturity

Family Living

Alcohol

Drugs

Smoking and Tobacco

Health Protection

Noise Pollution

Health Agencies

Health Careers

World Health

Safety and Accidents

References

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
HEALTH STATUS		
Health is a basic component of total fitness.	Review definitions of health, for example, the WHO definition: "Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."	
Health can be measured by periodic check-ups.	Ask pupils to recall their last health examination by a physician, and their last dental examination by a dentist.	
Dental health is necessary to total fitness. Acids formed in the mouth by the action of acid-forming bacteria on sugar contribute to dental disease.	<p>Demonstrate with nitrazine paper the acidity or alkalinity of the mouth. Supply pupils with strips of paper. Ask pupils to soak sterile cotton swabs with saliva and apply to the paper. Match the resulting color of the strip with the color chart provided by the manufacturer to determine the degree of acidity or alkalinity. A pH of 7 indicates a neutral mouth; below 7 indicates an acid mouth, and above 7 indicates an alkaline mouth. Discuss the source of the acid and the relation between acidity and dental disease. How does sugar contribute to dental disease? Supply each pupil with a sheet of white paper to which is attached strips of Tea-Tape (Eli Lilly & Co.), each strip measuring $\frac{1}{2}$" x 4", numbered in 3's from 0 to 27 for recording at 3-min. intervals. Head paper and strips by the words "solution" and "saliva". Give each pupil a paper cup with approximately 12 ml. of a 1:5 solution of corn syrup and tap water, and a supply of flat white birch toothpicks. Instruct the pupils not to touch the Tea-Tape with their fingers. Have pupils begin by touching saliva in freshly rinsed mouth with a clean toothpick and placing a dot of this saliva on the Tea-Tape strip labeled "zero" under "saliva". Now have each pupil dip clean toothpick into cup of glucose and place a dot of this under "solution". This second dot will quickly turn green. Ask each pupil to swish glucose solution in mouth for 30 sec. and either swallow or spit out. Immediately take sample of saliva with clean toothpick. Place dot of this saliva on Tea-Tape beside the other at the zero time mark. Thereafter, at intervals of 3 min., each pupil is to sample his saliva with a clean toothpick and place the saliva dot beside the proper time indication. The naturally yellow test paper turns green under dots of saliva until the glucose solution has been cleaned from the mouth by salivation.</p> <p>Sugar-producing acid has been shown to be present in sufficient concentration to decalcify enamel with 3 min. after eating. Discuss how long it took to clear the mouth of the sugar by salivation and relate this time to the importance of brushing teeth immediately after eating.</p> <p>Discuss individual differences.</p>	Summarize ways to clear the mouth of sugar when tooth-brushing may not be convenient.

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
HEALTH STATUS—(Continued)		
<p>Characteristics of adolescent maturation will determine individual rates of growth and development.</p>	<p>Compare the sequence in growth and development of the child with that of the adolescent.</p>	
<p>Differences in time of maturing can be of great importance to the individual.</p>	<p>Discuss the reasons for individual differences in growth rates.</p>	
<p>Periodic check-ups are reassuring to a healthy adolescent.</p>	<p>Ask pupils to obtain several different health record forms. Use these in a discussion of the kinds of information the doctor seeks and the extent to which he examines the body in a health check-up. Invite the school physician to talk about the medical check-up, and the school dentist or dental hygienist to discuss the dental check-up.</p>	<p>Have pupils answer the following questions: When did you last see a physician? When did you last see a dentist? What is the importance of knowing your own health status?</p>
<p>Desirable health practices help increase and maintain health status, and help individuals to achieve their goals.</p>	<p>Review personal health practices that assure maximum health status, or the achievement of one's maximum hereditary potential in health. Relate the importance of health to achieving one's goals in life.</p>	<p>Have pupils make a self-inventory of health practices and personality. Set up revised standards for health practices.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
FATIGUE AND SLEEP		
<p>Fatigue affects the muscles and the mind.</p> <p>Fatigue acts as a safety valve in protecting the body.</p> <p>Each person has different needs for sleep.</p> <p>Not all is yet known about the nature of sleep.</p> <p>Taking drugs to overcome fatigue or induce sleep is a dangerous practice.</p>	<p>Discuss causes of fatigue such as oxygen debt, anemia, low blood sugar, malnutrition, emotional strain, illness, inactivity.</p> <p>Discuss differences in body use of energy.</p> <p>Study the procedure and significance of the basal metabolism test.</p> <p>Make a graph of the sleep requirements of the class as reported by each pupil.</p> <p>Find and report on scientific studies concerning sleep. Discuss the nature of sleep as evidenced in scientific research.</p> <p>Report on stimulant and depressant drugs, and the dangers of their use in meeting sleep, rest, and activity needs.</p>	<p>Keep a record for one week of the time of food intake and fatigue points during each day. Analyze the findings for improved energy levels.</p>
EXERCISE		
<p>Exercise, food, and rest are keys to physical fitness.</p>	<p>Review the structure and functions of the body systems in relation to exercise, food, and rest.</p> <p>Study the physiology behind the following benefits derived from exercise: improved strength, endurance, and coordination; increased flexibility in joints and muscles; improved posture and appearance; additional energy for daily needs and extra demands.</p>	<p>Ask each pupil to evaluate his own needs for exercise in terms of his physical fitness test score obtained in physical education class.</p>
<p>A regular program of exercise is essential all during adolescence.</p> <p>Although youth of today are fundamentally healthier than in former years, they have not developed strong, agile bodies.</p>	<p>Explain that needs go beyond the required class time for exercise, to include two to four hours of exercise after school, preferably outdoors.</p> <p>Point out the changes in types and amount of activity of today's youth compared to the time when their grandparents were young.</p> <p>Study the results of fitness tests given by the President's Council on Youth Fitness. What are the national trends?</p>	<p>Study the school physical education program and opportunities for extracurricular activities.</p>
<p>Adults need regular exercise and recreational activities.</p>	<p>Study research findings on exercise and aging.</p>	<p>Identify activities appropriate to adults in meeting their needs for exercise.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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EXERCISE—(Continued)

<p>Blood pressure varies with activity.</p>	<p>Experiment to find out the variations of blood pressure before and after exercise. Materials: Sphygmomanometer, stethoscope. Procedure: Ask two pupils, a boy and a girl, to volunteer to serve as subjects for the experiment. Invite the school nurse or physician to take the subjects' blood pressure while seated. Record. Ask the subjects to stand. Take the blood pressure again and record. Ask the subjects to hop 20 times on each foot separately. Take the subjects' blood pressure after the exercise and record. Results: Compare pressures when sitting, standing, and after exercising. Ask the school nurse or physician to explain systolic and diastolic pressures and how the sphygmomanometer and stethoscope are used to measure blood pressure when the heart contracts and when it rests. Discuss some of the information obtained by the doctor from blood pressure measurements.</p>	<p>Summarize the effects of exercise on blood pressure. Identify some of the causes of high blood pressure and describe health practices that help to prevent or control this condition.</p>
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RECREATIONAL ACTIVITIES

<p>Recreational activities provide necessary exercise and interest throughout life.</p>	<p>Relate emotional, social, and physical health values of exercise and recreation to total health and fitness.</p>	<p>Survey interests in various types of recreational activities and relate them to individual needs.</p>
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SENSORY PERCEPTION

<p>Sensory perception can be developed in many areas.</p>	<p>Explain the categories of the senses: sight, hearing, taste, smell, touch: pressure, heat, cold, pain (through skin receptors); and vibration, discrimination, position, and equilibrium. Stimulate an appreciation for the fullest development of all the senses in using the intelligence.</p>	<p>Relate how each of the senses helps to interpret the environment. Ask pupils to suggest ways to increase perceptions.</p>
<p>Medical science and education are providing new information concerning ways to improve health.</p>	<p>Have pupils report on current articles in health journals that explain health problems in the areas of physical health, and society's efforts in trying to solve these health problems.</p>	<p>Prepare bulletin board displays on timely health problems and ways to solve them.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NUTRITION		
<p>Adequate nutrition is essential for health.</p>	<p>Problems: Review the scientific data to answer the following questions:</p> <ol style="list-style-type: none"> 1. What is the function of food? 2. What are the food nutrients? 3. How do we determine individual energy needs? 4. What is a balanced diet? 5. How can we control weight? 6. What are the dangers of dieting? 7. What are the problems of underweight; overweight? 8. What are some of the fads and fallacies concerning foods and diet? 	<p>Develop a self-evaluation on nutrition practices. Keep a record of foods eaten during one week, and analyze the record in terms of body needs. Make recommendations for improved diet if indicated.</p>
<p>Science is constantly finding new nutritional information that that will improve health.</p>	<p>Discuss the following statements:</p> <ol style="list-style-type: none"> 1. The history of nations can be traced in terms of food. 2. Boys and girls are taller and heavier than their ancestors. 3. Agricultural science has increased the quality and quantity of food. 4. Government inspection of food ensures safer products. 5. The basic human need for adequate food is a prime cause of world health problems. 	<p>Selected one nutrition principle and prepare a report on how this principle may improve health.</p>
<p>Nutritive content as well as cost is important to consider when buying foods.</p>	<p>Ask pupils to investigate and report reasons that influence consumers in their purchases of foods for the home, for restaurants, for the school lunch. Evaluate these reasons.</p> <p>Ask pupils to collect food ads and evaluate these in terms of nutritive content and cost. Compare the nutritive values and costs of fresh foods and processed foods.</p> <p>Discuss the responsibility of</p> <ol style="list-style-type: none"> 1. Government for controlling the purity of foods (FDA). 2. Official health departments for the sanitary handling of foods (U.S., state, county, city health depts.). 3. Individual citizens for reporting unsatisfactory products and unsanitary practices. 	<p>Ask pupils to use the information on food labels to compare the unit cost of like foods that are packaged in different ways.</p> <p>Discuss some "best buys".</p>
<p>Foods of equal cost may be different in nutritive value.</p>	<p>Have pupil volunteers set up two shopping carts of foods. Compare adequate with inadequate food values of relatively equal cost. Develop guidelines for purchasing foods according to budgetary allowances.</p>	<p>Ask pupils to report any changes in food purchases that may be outcome of this study.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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NUTRITION—(Continued)

<p>Caloric and nutritive requirements provide a basis for appraising daily food intake.</p>	<p>Guide the class in a study of the kinds of nutrients in each of the basic food groupings. Find out the daily caloric and nutritive requirements for teenage boys and girls, for adult men and women. Why do teenagers have higher requirements than adults? Discuss basic meal patterns. Ask pupils to consider what changes if any they should make to improve their food practices.</p>	<p>Make a daily record of food intake for one week indicating approximate calories and nutrients. Compare individual records with recommended standards.</p>
<p>Schools may give leadership to public interest in sound nutrition programs.</p>	<p>Ask for volunteers to prepare and display exhibits on foods and nutrition, utilizing pupil talent and materials available through county, state, and other sources. Involve the class in planning a "Better Nutrition Month" for the school.</p>	<p>Observe pupil food habits before and after the program. Evaluate in terms of improvement.</p>

GROWTH AND DEVELOPMENT TOWARD MATURITY

<p>The young adult should be reaching the stage of maturity that warrants independence and increased responsibility.</p>	<p>Define maturity as a state of full development, physically, mentally, emotionally, socially, with economic independence. Explain that the legal age of maturity is 21, but some people show signs of immaturity beyond that age.</p>	<p>Ask pupils to examine their own progress toward maturity.</p>
<p>Behavior gives some evidence that maturity has been reached. Motivation is an important ingredient of maturity.</p>	<p>Discuss evidences of maturity such as the ability to accept responsibility, to make own decisions, to set up reasonable goals, to have taken steps to achieve some goals, to get along with others, to accept one's self, and to face reality.</p>	<p>Review individual goals and ways to reach these.</p>
<p>Differences in individual physical, mental, and social growth rates are evident in the young adult.</p>	<p>Review the influence of endocrine secretions on body growth and development. Identify differences in the development of the male and the female. Discuss influences of environment and experiences on maturity.</p>	<p>Identify mature attitudes toward the opposite sex, and toward one's role in society.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
GROWTH AND DEVELOPMENT TOWARD MATURITY—(Continued)		
Emotions affect body functions.	<p>Ask pupils to find and report information about the effects of emotions on body functions. Include such emotions as fear, anger, worry, resentment, self-pity, distrust, avoidance of responsibility, self-blame.</p> <p>Have the class summarize the reports by preparing a list of some of the physical effects of emotions such as rapid breathing, quickened pulse, blushing, blanching, rise in blood pressure, muscular contractions in the stomach, dry mouth and throat, cold hands and feet, shaking knees, fainting, vomiting, headaches, insomnia.</p>	Ask pupils to cite problem situations that illustrate the interrelationships of emotions and physical health.
Heredity plays a very important part in personality.	Review the biological factors of inheritance. Discuss the roles of DNA and RNA in cell division.	Give a test on cell reproduction.
Certain factors in the environment can influence heredity.	<p>Discuss the factors in the environment that may affect heredity such as drugs, diseases, radiation.</p> <p>Discuss strengths and weaknesses of body structure and function that are inherited.</p>	Have pupils fill out a personal health record form and study it in terms of inheritance.
Maturity can be appraised.	Ask the Guidance Counselor to assist in the interpretation of test scores.	Evaluate appropriate rating scales.
WHO has contributed a definition of total health.	The World Health Organization defines health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." WHO further adds that health is the right of all; that health is necessary for peace and security, and requires the cooperation of all peoples and nations.	Relate the WHO definition to goals for self and community well-being.

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
GROWTH AND DEVELOPMENT TOWARD MATURITY—(Continued)		
<p>A mature person takes responsibility for his own health and the health of others, viewing health as a means to an end and not an end in itself.</p>	<p>Discuss the importance of health for achieving one's desired goals in life.</p> <p>Ask each pupil to formulate his own definition of health, then report several definitions from references, giving biographical information of the authors. Ask pupils to compare their definitions of health with those of the authorities. After a discussion, develop a definition of health formulated by the class.</p> <p>List some of the great leaders of the United States and of other countries who possessed physical defects and discuss whether or not these leaders were considered to be healthy.</p> <p>Discuss the role of the physician in checking certain aspects of health and the reason physical health is only one phase of living.</p> <p>Discuss the following questions:</p> <p style="padding-left: 2em;">Why is health more than just freedom from disease?</p> <p style="padding-left: 2em;">Can a person with a non-remediable health condition be considered healthy?</p> <p style="padding-left: 2em;">Can a person who passes a medical examination and has no physical defects be considered as not healthy?</p> <p style="padding-left: 2em;">What factors influence health?</p> <p style="padding-left: 2em;">What is the modern concept of health?</p> <p style="padding-left: 2em;">What are some of the ancient and modern fallacies and superstitions concerning health?</p> <p>Ask pupils, as growing and developing young Americans, to discuss their plans for healthful living based on the modern health concept of levels of wellness.</p> <p>Trace mankind's quest for health from primitive times to the present.</p> <p>Discuss the place of moderation in the maintenance of health.</p>	<p>Ask pupils to write about ways to maintain their health now and in the future.</p> <p>Have a panel discussion with questions from the class on "The responsibility of each person for his own health and the health of others."</p> <p>Divide the class according to their responses to the question "Is health an end or a means to an end?" Ask pupils to present a summary for their responses.</p>
FAMILY LIVING		
	<p>Consult available references and guides on family life education for appropriate concepts, learning experiences or activities, and suggestions for evaluation. Particularly see: <i>Journal of School Health</i>, V. 37, N. 5a, <i>Growth Patterns and Sex Education: A Suggested Program Kindergarten Through Grade Twelve</i>.</p>	

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
ALCOHOL		
An emotionally healthy person does not use alcohol as an "escape".	Discuss the emotionally mature individual and his characteristics. Discuss ways to evaluate emotional maturity. Show a film on alcoholic beverages and their effects on personality.	Give a personality test. Develop a questionnaire based on characteristics of a mature person.
Alcohol affects many physical functions of the body.	Discuss or review how alcohol affects body functions.	Give a test on effects of alcohol in the body.
Alcohol affects the body psychologically.	Discuss the degrees of alcoholism.	Present a questionnaire on the danger signs of alcoholism.
Excessive use of alcohol may create physical problems.	Discuss alcohol in relation to cirrhosis of the liver, pneumonia, tuberculosis, malnutrition, diseases of the nervous system.	Evaluate answers to the question "Can there be safe drinking?"
Alcoholism is increasingly viewed as an illness.	List the 12 steps of Alcoholics Anonymous. Discuss treatment and rehabilitation of the alcoholic. Discuss agencies concerned with alcoholism such as AA, Alanon, Alateen, National Council on Alcohol, State Department of Mental Hygiene, welfare and social agencies, and others.	
Critical attitudes are needed to evaluate advertising practices.	Develop an inventory of advertising practices by alcoholic beverage distillers, and indicate the emphasis on social drinking, use of alcoholic beverages by distinguished people, association of alcoholic beverages with important social occasions and ceremonies, ingenious use of color art, artistry, no reference to alcoholism, correlation of buying beer and wine with staple foods, encouragement to serve alcoholic beverages with meals.	Develop a series of ads that might be used to present the facts about drinking alcohol.
Many accidents and crimes are related to the use of alcoholic beverages.	Discuss newspaper accounts of accidents and crimes involving the use of alcohol. Report on the activities of other countries to discourage drinking of alcoholic beverages.	Present to the class a problem situation involving the use of alcoholic beverages by teenagers. Relate the effects of alcohol on the behavior of teenagers and how this behavior contributes to accidents and crimes.

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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ALCOHOL—(Continued)

<p>The decision about drinking alcoholic beverages should be based on factual knowledge of the harmful effects on the body. Comprehension of the alcohol problem in today's society should include an understanding of individual, social, and economic factors involved in the consumption of alcohol, and the standards and goals of the individual.</p>	<p>Discuss the legitimate functions of alcohol in modern society. List many controls (social and legal) that are required to prevent alcohol use from becoming alcohol abuse. Ask pupils to compile information about the effects of alcoholic beverages in the body. Assign a volunteer committee to consult statistics concerning accidents related to drinking and alcohol concentrations in the blood. Have the class summarize information according to advantages and disadvantages of drinking alcoholic beverages.</p>	<p>Prepare a list of recommendations based on facts concerning the drinking of alcoholic beverages. Enumerate non-offensive ways or procedures for refusing an alcoholic drink.</p>
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DRUGS

<p>Drug abuse by young people is a serious problem in today's society.</p>	<p>Study and discuss the causes of drug abuse: social, psychological. Assign readings on these causes and discuss.</p>	<p>Relate drug abuse to emotional illness.</p>
<p>Drugs commonly abused today are amphetamines, barbiturates, marijuana, LSD, and the narcotics. The sniffing of volatile chemicals is also classed as drug abuse.</p>	<p>Study and report on the nature and effects of the drugs commonly abused in today's society.</p>	<p>Enumerate ways to prevent drug abuse among young people.</p>
<p>Drug dependence refers to both psychological and physical dependence on a drug.</p>	<p>Show and discuss currently available films on drug abuse and drug dependence. Discuss causes and effects of drug abuse. Relate to personality inadequacies.</p>	<p>Identify ways to be adequate persons.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
DRUGS—(Continued)		
<p>The abuse of narcotic drugs represents a final stage in drug abuse in which the individual becomes totally dependent on drugs and destroys himself physically, morally, financially in his driving need to keep himself supplied.</p>	<p>Discuss the nature and effects of the narcotic drugs in the body. Include opium, morphine, heroin, codeine, and synthetic narcotics (dentoral and methadone). Have pupils study the literature about Federal and State facilities for the rehabilitation of narcotic addicts. Consult local officials such as the District Attorney's Office about the relation between drug abuse and crime in the local community.</p>	<p>Summarize ways to handle discomforts and problems without the use of drugs.</p>
<p>Legislation and control over drug traffic is a local, state, and national problem.</p>	<p>Secure and discuss the legislative measures of the State and Federal governments designed to control drug abuse. Ask a law enforcement officer to talk with the class on laws concerning drug use.</p>	<p>Organize a student symposium or a mock community meeting on the prevention and control of drug abuse in the local community.</p>

SMOKING AND TOBACCO

<p>An awareness of the relation between smoking and disease is basic to deciding to smoke or not to smoke.</p>	<p>Discuss reasons that people smoke. Have pupils compute the cost of the smoking habit. Assign pupils reports on recent publications of the United States Public Health Service, the American Cancer Society, the Heart Association, and the Tuberculosis and Health Association on smoking and disease. Ask pupils to find out efforts of other countries in acquainting their people with the hazards of smoking. Ask pupils to discuss and interpret research studies on the effects of tobacco on the body. Indicate the source and sponsor of each research study. Ask pupils to report findings of business and industry concerning the incidence of illness absences of smokers and non-smokers. Ask pupils to report changes in the incidence of smoking among adults, high school pupils, physicians, men, women, each year since the first Surgeon General's Report in 1964. Ask volunteers to report on the purposes of the National Clearing House for Smoking and Health, and the national, state, and local Interagency Councils on Smoking and Health.</p>	<p>Evaluate smoking ads for motivation and accuracy. Ask pupils to arrange a program on "Is Smoking Worth It?"</p>
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SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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SMOKING AND TOBACCO—(Continued)

<p>Recent research on smoking and disease provides scientific information for decision-making.</p>	<p>Obtain a film of the CBS National Smoking Test of January 1968 from the State Film Library or the local office of the American Cancer Society. Assign reports on smoking and health from materials obtainable from national, state, and local Interagency Councils on Smoking and Health. Write to the Tobacco Research Council for information on its advertising code. Write to the National Clearing House for Smoking and Health to obtain reports on research activities in progress on smoking and health. Ask the District PTA Health Director for information on presenting a Parent-Teacher-Student program on Smoking and Disease.</p>	<p>Have pupils take the National Smoking Test as pre- and post-test. Summarize findings of the various research studies obtained.</p>
<p>Each individual should carefully weigh the evidence concerning the health hazards of smoking before becoming involved with a practice that is all but irreversible.</p>	<p>Discuss the physiological, psychological, economic, and social implications of the material studied in relation to the decision-making responsibility of each individual concerning smoking.</p>	

HEALTH PROTECTION

<p>Morbidity and mortality reports are useful in protecting the health of the community.</p>	<p>Discuss the significance of morbidity and mortality reports from the health department. Select a committee to obtain and report information about the work of the epidemiologist in the health department.</p>	<p>Analyze state morbidity and mortality reports to determine understanding of health data.</p>
<p>Statistics are useful to maintain and improve community health.</p>	<p>Ask pupils to report current events having to do with health surveys. Discuss the purposes of the surveys and anticipated outcomes. Obtain morbidity and mortality records from the local health department and also from voluntary health agencies concerned with specific diseases. Interpret the records in terms of community health problems. Are the figures useful in showing trends, detecting changes or problems, and revealing needs for maintaining and improving the health of the people in the community?</p>	<p>Present in graphic form the findings of a class, school, or community health survey.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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HEALTH PROTECTION—(Continued)

<p>Public health laws and individual health practices contribute to the health of the people.</p>	<p>Ask pupils to volunteer for two panels, one to present information about the health protection of the public by legal measures, and the other to serve as a reactor panel.</p> <p>Invite a representative of the local health department or the Food and Drug Administration to talk with the class on "Your Health and the Law."</p> <p>Discuss the limitations of laws for health protection and some of the ways people are taught to protect themselves (immunizations, hand-washing, and other health practices).</p>	<p>Identify some of the "loopholes" in current public health measures.</p> <p>Prepare a list of health problems which may necessitate changes in current public health measures or the development of new ones.</p>
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NOISE POLLUTION

<p>Noise is unwanted sound.</p>	<p>Ask pupils to interview their working family members concerning unwanted sounds encountered in their jobs. Have pupils compile a list of unwanted sounds and note which of these the family members believe could be eliminated.</p> <p>Discuss the differences in individual responses to sound, also animal vs. human responses to different sounds. Are there more unwanted sounds in the winter or the summer? Explain.</p>	<p>Ask the pupils to record sounds that bother them. Compile this information and distribute to the class for discussion and reaction.</p>
<p>Noise is a factor in many physiological disorders.</p>	<p>After referring to physicians' reports, discuss the contribution of noise to hearing loss, emotional tensions, cardiovascular problems, flushed skin, adrenal gland stimulation, stomach upsets, fatigue, reduced work efficiency, and inhibition of normal development in infants.</p> <p>Discuss how noise that tends to anger or frustrate reinforces other irritations that lead to gastrointestinal disorders, migraine attacks, and many psychosomatic problems.</p> <p>Compare hearing losses from intermittent and continuous noises.</p>	<p>Pupils may indicate precautionary steps to be taken NOW to avoid any future costly dilemma that would cause an indeterminable amount of harm.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NOISE POLLUTION—(Continued)		
<p>Noise is a factor in psychological disorders.</p>	<p>Discuss the effects of noise on the nervous system. Include reports from psychologists and psychiatrists.</p> <p>Find out how noise can contribute to short tempers; interrupt minimum sleep requirements; cause fear; distort the conception of time; cause an internal upheaval which, if repeated again and again, can cause mental exhaustion and ultimately serious illness; interrupt sleep and prevent dreaming thereby resulting in symptoms such as paranoid delusions, hallucinations, suicidal and nightmarish memories; interfere with school programs; interrupt speech; create anxiety and be a factor in psychosis.</p> <p>Discuss how continuing tensions may lead to serious mental stress.</p>	<p>Have pupils list educational and remedial procedures that might prevent future crises.</p>
<p>Man uses sound to achieve certain purposes.</p>	<p>Discuss the use of sound to soothe or to irritate or to confuse the human personality. Discuss the use of sound in competition, war, medicine. Investigate the safe and unsafe levels of sound for the human body.</p> <p>A panel of class members may present this information to the class followed by questions from the class directed to the panel.</p>	<p>Evaluate the involvement of class members in the discussion.</p>
<p>Noise may cause accidents.</p>	<p>Discuss how noise may cause accidents.</p> <p>Invite a member of the Safety Council in the local area to speak with the class on this subject.</p> <p>Evaluate the use of sirens. Note their effects on accident victims and ill persons as well as on the general public.</p>	<p>Pupils may tabulate ways in which they may contribute to noise abatement and help reduce accidents.</p>
<p>Economy and noise reduction go hand in hand.</p>	<p>Discuss how noise is a waste of energy, how neglected machines become increasingly noisy with wear, and how noise may be reduced at its source.</p> <p>Have pupils identify noise problems especially at school and at home, and formulate plans to reduce them.</p>	<p>Have each pupil report to the class when he has succeeded in improving some noisy situation.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
NOISE POLLUTION—(Continued)		
<p>Noise can be controlled.</p>	<p>After a review of the literature identify disturbing noises in private industry; government installations (military, NASA); the home, school, community.</p> <p>Discuss known methods for controlling such noises. Include private industry and government-sponsored noise control research and hearing conservation programs. Emphasize that the key reason for industry's interest in noise control is an economic one. Discuss why this is so.</p> <p>Discuss the reasons that noise abatement projects must include the support of architects, acoustical engineers, machinery manufacturers, contractors, and the education of the public to the realization that uncontrolled noise is a serious and immediate problem.</p> <p>Identify some of the noise abatement societies established in many countries. Discuss the need for technology to develop acoustical performance standards. Identify the safe and unsafe sound levels for the human body as established by the medical profession.</p> <p>Appoint a committee to write to such groups as Citizens for a Quieter City, Inc., 27 W. 53rd St., New York 10019, for information. The committee should share the information with the class. Emphasize the fact that the effects of excessive noise are largely unrecognized and that education of the public is needed for noise abatement. Stress the need to stimulate research in noise abatement and to establish noise standards and sensible guidelines for model noise codes.</p> <p>Invite an acoustical engineer to demonstrate and measure noise levels. Perhaps pupils can measure noise levels in the school, home, and some places in the community. Such findings with explanations might be published in the school paper.</p>	<p>After constructing an interview survey sheet, ask the pupils to interview architects and others to learn what contributions they are trying to make in noise abatement. Have the pupils tabulate their findings and write critiques which identify noise levels and give suggestions for improving noise levels in the school, home, and community. Recommendations may be formulated and presented to the Student Council. The best critiques might be submitted to the school paper for publication.</p>
<p>Man has a right to be free of excessive noise and its effects.</p>	<p>Discuss existing legislation pertaining to noise (local, state, national, world-wide). Information may be obtained on the status of proposed legislation pertaining to noise control in the United States by writing to Congressmen in Washington, D.C. The World Health Organization is also interested in noise control and may be contacted for information on noise as an occupational hazard and nuisance to the public.</p>	<p>Pupils may participate in a round-table discussion to identify ways in which they contribute to noise pollution and how they may promote noise abatement. Note changes in pupil behavior.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
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HEALTH AGENCIES

<p>Community health agencies help meet individual and community health needs through education, research, and services.</p>	<p>From a list of community health agencies (official, voluntary, and professional) ask each pupil to volunteer to visit an agency of his choice and report to the class. Develop a list of questions appropriate for use in these visits, for example, means of support, organizational structure including type of workers, purposes, specific contributions to health maintenance and improvement of individuals and the community.</p>	<p>Ask the class to prepare a chart that summarizes the contributions of each agency contacted.</p>
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HEALTH CAREERS

<p>Opportunities are many and varied in health careers:</p>	<p>Have the class survey careers in health fields. Information about health career opportunities may be obtained from the school counselor. Ask pupils to select careers and find out the kind of work involved and requirements concerning preparation, experience, and health. Ask pupils to search current literature for anticipated health achievements in the near future and possible new ways of living. From a discussion of these reports, predict health careers of the future. Invite the Community Health Council or representatives of community health agencies to assist in planning a Health Careers program. Include opportunities for pupils to visit hospitals and medical schools (with parents after school hours) to learn about medical and paramedical careers.</p>	<p>Culminate this project by preparing a health careers chart based on the information found by the class. The chart may be reproduced on notebook-size paper so each pupil may have a copy for reference.</p>
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SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
WORLD HEALTH		
<p>Many countries have similar health problems.</p>	<p>Select a panel of pupils to discuss the origin, structure, and functions of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO). Select a group of pupils to report on health problems in countries of their own choosing. Pertinent information about health problems in other countries may be obtained by writing to WHO, FAO, and to various embassies in Washington, D.C., also by contacting the nearest consulate offices of various countries. Discuss the importance of being concerned about the health problems of people in other parts of the world.</p> <p>Invite persons who have lived in other countries to discuss health problems they found. Prepare a panel for an assembly program in which pupils represent various nations throughout the world. Each pupil may dress in accordance with the country he represents. Each panel member should discuss the health problems peculiar to the country he represents and some of the work in progress for solving these problems.</p> <p>Discuss what young people in America are doing to help alleviate human misery and suffering in other parts of the world. Compare the health problems and the leading causes of death in the United States with those in other countries.</p>	<p>Ask pupils to list some of the diseases and health problems peculiar to the U.S. and to other areas of the world, such as dental disease, alcoholism, obesity, kwashiorkor, trachoma, leprosy, malaria, yaws. Identify the place, health problem, and probable cause. Indicate progress in conquering the disease or health problem.</p>
<p>Travelers need to prepare themselves for the health problems in the countries they visit.</p>	<p>Divide the class into groups and ask each group to select a country the pupils would like to visit. Ask each group to find out about the health problems concerning food, water, clothing, and disease for which they should prepare; also the immunizations required.</p> <p>Invite class representatives to obtain information from local offices of foreign consuls, air line companies, health departments, and the U. S. Government Printing Office in Washington, D.C.</p>	<p>Summarize the findings of the groups in chart form and discuss health problems that travelers face and what they may do to protect themselves.</p>

SENIOR HIGH SCHOOL (10, 11, 12)

CONCEPTS	SUGGESTED LEARNING EXPERIENCES OR ACTIVITIES	EVALUATION
SAFETY AND ACCIDENTS		
<p>Accidents may be prevented by knowing their causes and following safety precautions.</p>	<p>Interview accident repeaters in private conferences. Interview parents of accident repeaters.</p> <p>Hold small discussion groups with accident repeaters. Discuss individual safety hazards such as impulsiveness, poor judgment, emotional tension, hostility, resentment.</p> <p>Study accidents in the school buildings. Identify causes and discuss how the accidents might have been avoided.</p> <p>Contact local resources for safety information such as the Traffic Division of the Police Department, the Automobile Club, the National Safety Council, the school health office.</p> <p>Ask pupils to bring clippings or articles concerning accidents. Analyze how the accidents might have been prevented.</p>	<p>Have the class keep a record of pupil accidents. Study the data from time to time. Acquaint repeaters with findings. Ask accident repeaters to interpret the data in terms of their own situations.</p>
<p>Environmental hazards may be removed or reduced.</p>	<p>Identify a safety problem in the school, home, or community environment. Plan an "Action Program" to solve the problem including</p> <ul style="list-style-type: none"> The Problem (What?) The Objective Ways and Means (How?) Persons to be involved (Who?) Time schedule (deadlines) (When?) Evaluation (How well?) 	<p>Evaluate the Action Program in terms of achievements.</p>

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REFERENCES FOR THE TEACHER

See page 90.

REFERENCES FOR THE TEACHER

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