Kessman, William A.

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Designed primarily for special needs students in a vocational program in automobile maintenance, this book was written to refine the basic skills of following directions, reading comprehension, vocabulary building, spelling, word usage, and word recognition, while relating these skills to some of the tasks a beginning student in the program must know. Ten lessons are included: (1) A Few School, (2) A New Shop, (3) Auto Shop Safety, (4) Cleaning the Interior of a Car, (5) Washing a Car, (6) Polishing and Waxing a Car, (7) Changing the Oil, (8) Changing an Oil Filter, (9) Lubricating the Chassis, and (10) Mounting a Tire. Each lesson lists key words and provides six to seven student exercises. Answers to the lessons are included in a separate Answer Key section. (SH)
AUTOMOBILE MAINTENANCE
READING AND LANGUAGE ACTIVITIES

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New Brunswick, New Jersey

July 1976
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TO THE TEACHER

This Automobile Maintenance — Reading and Language Activities book has been designed primarily for special needs students in a vocational program in automobile maintenance. For the most part, the lessons do not have to be done sequentially. It is suggested that an appropriate lesson choice should complement and reinforce the actual shop activity on a given day. Consequently, if a student is currently learning how to change oil in a car, the reading lesson relating to that job skill would be the one of choice.

This workbook does not purport to be complete in the sense that all areas of automobile maintenance are covered. It has been written for the purpose of refining the basic skills of following directions, reading comprehension, vocabulary building, spelling, word usage, and word recognition while relating these skills to some of the tasks a beginning student in an automobile maintenance program must know.
It was Jerry Miller's first day at the Best County Vocational School. Jerry felt nervous. He sat down with other new students in homeroom 113. Jerry had not been doing very well in school for the past several years. He had failed both English and Math. He had gone to many other schools. None of them really met his needs. B.C.V.S. was the first vocational school he had ever attended. Jerry hoped that this new school would help him more than the others had. Two of his friends from his old school had already spent one year at B.C.V.S. They told Jerry that it was the best school they had ever been to.

Mr. Cooper, the homeroom teacher, began to read the names of the students in the room. Jerry Miller called, "Here!" when he heard his name read. After this Mr. Cooper passed out the schedule cards to the students. All new students would spend one week in each of the school's shops. This would help the students decide which shop was the best for them. After 7 to 8 weeks they would be placed in one of the shops permanently.

Jerry had done some automobile maintenance work at his uncle's service station. He hoped to get automobile maintenance as his permanent shop. Soon the bell rang. The students passed to their first period classes. The students in homeroom 113 left their seats and filed out of the classroom.
I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ____ Jerry Miller wanted to quit school.
2. ____ Jerry Miller attended his first day at the Best County Vocational School.
3. ____ Jerry Miller hoped to do well at B.C.V.S.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the words in dark print.

1. Jerry Miller was going to a vocational school to learn a trade.
   ___ (a) having to do with a job
   ___ (b) having to do with a trip
   ___ (c) having to do with a holiday

2. He went to several schools before.
   ___ (a) new
   ___ (b) more than two
   ___ (c) old

3. Jerry now attended B.C.V.S.
   ___ (a) went to
   ___ (b) hated
   ___ (c) dropped out

4. Jerry read his schedule card to find out what his first period class was.
   ___ (a) a listing of telephone numbers.
   ___ (b) a listing of students' names
   ___ (c) a listing of classes

5. He hoped to be placed in the shop class permanently.
   ___ (a) a long time without changing
   ___ (b) for two weeks
   ___ (c) for one month

7
6. In the automobile maintenance shop, Jerry learned the work of cleaning, servicing, and repairing a car.
   ___ (a) keeping a car safe, clean, and in good running condition
   ___ (b) building a car
   ___ (c) stripping a car for parts

III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

___ 1. Jerry Miller had gone to several other vocational schools before.

___ 2. Jerry had done well in the other schools he had attended.

___ 3. Jerry felt nervous in his new homeroom.

___ 4. The other schools that Jerry attended really seemed to help him a lot.

___ 5. Jerry had two friends that liked B.C.V.S.

___ 6. Mr. Cooper was Jerry’s homeroom teacher.

___ 7. Jerry wanted to take food services as his permanent shop.

___ 8. The new students would spend two weeks in each shop.

___ 9. Jerry had done some automobile maintenance work before coming to B.C.V.S.

___ 10. Mr. Cooper passed out schedule cards to his students

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

<table>
<thead>
<tr>
<th>Word List</th>
</tr>
</thead>
<tbody>
<tr>
<td>attended</td>
</tr>
<tr>
<td>permanently</td>
</tr>
<tr>
<td>automobile maintenance</td>
</tr>
<tr>
<td>schedule</td>
</tr>
<tr>
<td>homeroom</td>
</tr>
<tr>
<td>several</td>
</tr>
<tr>
<td>nervous</td>
</tr>
<tr>
<td>vocational</td>
</tr>
</tbody>
</table>

1. Jerry Miller felt ______ as he took a seat in homeroom 113.

2. Jerry Miller had never ______ a vocational school before.

3. Jerry had not been doing very well in school for the past ______ years.

4. B.C.V.S. was the first ______ school he had ever gone to.
5. Mr. Cooper passed out the __________ cards to the students.
6. Jerry had done some __________ work with his uncle.
7. Jerry hoped that he would be in the automobile maintenance shop __________
8. Jerry Miller was in Mr. Cooper’s __________

V. Vocabulary – Spelling

Directions: Review the key words at the beginning of the story. Now look at the words below. They are the key words for the story, but some of the letters are missing. Print the missing letters in the empty spaces.

1. __e__v__s
2. vo__a________al
3. p____m__n___ly
4. att______ed
5. s__v__r____
6. s____e___le
7. h__m__r__m
8. a____t__m__b__e
   m______ten______

VI. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant. The first word has been found for you.
Words to Find in Puzzle

attended
automobile maintenance
homeroom
nervous

permanently
schedule
several
vocational

O M E S C H E D U L E H S T A V W H X
A F F J E Q V R A C O B L P T E O M C
H B I K M V S E U M Y D N C T M X V T
A C C E G I E M E O Q U P N E L J H F
R P V D X Z B R F A H J H R N G E C A
S L E M E O O S A D L M O L D E T R P
V T B R Y O K U F L N O O P E I C Z X
A U T O M O B I L E M A I N D E N A N
R C F U S A O S M A I N T E N A N C E
G L V U T A N I S T A T H O E L R A R
C E M C O I N E G Y E O O E B N R V I V
O G Y P L E A E N N M C N T D I O A O
I L R S S T B I N T T E N M E S U L U
A I O N S C G A E T L E T I D M S I S
V O C A T I O N A L L Y U T B E R C A
Jerry Miller tried all the shops at the Best County Vocational School. He was placed in the Automobile Maintenance shop permanently. His teacher's name was Mr. Ford. Jerry was very happy to be in Mr. Ford's shop class. He had hoped to be trained as a gas station attendant or general car repairman. There were seven other students in Jerry's shop class.

The shop was a real garage. The garage had three bays, one for each car. Each bay had an overhead garage door. It had all the equipment and tools for the students to learn correct auto maintenance. Just outside the shop was a gasoline pump. This was used to practice filling a car with fuel.

Among the first things Jerry noticed were the two hydraulic lifts built into the floor. They were used for raising cars off the floor for easier repairs. Jerry also spotted other pieces of equipment around the shop. One of them was the tire changer. Jerry would learn how to properly use this and all of the other equipment as a student at B.C.V.S.

Mr. Ford, the auto shop teacher, told the students that they would be working on their own cars first. Some of the students in the shop, like Jerry, drove their cars to school. They also would work on the teachers' cars.

Jerry was very excited about his new shop. He couldn't wait to begin working on cars. He wanted to learn as much as he could.
I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry Miller learned how to use some of the tools in the auto shop.
2. ___ Jerry Miller became a permanent automobile maintenance student at B.C.V.S.
3. ___ Jerry Miller showed that he did not like his new permanent shop class.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the word(s) in dark print. After each sentence are three meanings. Put an X next to the best meaning for the word(s) in dark print.

1. Jerry was being trained in automobile maintenance.
   ___ (a) walked
   ___ (b) accepted
   ___ (c) taught skills as in a trade or job

2. Jerry had worked with an attendant at his uncle's gas station.
   ___ (a) a person who is always on time
   ___ (b) a worker who fills cars with gasoline and checks the oil and battery
   ___ (c) a worker who fixes auto engines

3. Jerry once brought his car to a general automobile repairman.
   ___ (a) a worker who fixes cars
   ___ (b) a worker who junkers cars
   ___ (c) a worker who parks cars

4. The gasoline pump was used to practice filling a car with fuel.
   ___ (a) air
   ___ (b) oil
   ___ (c) gas
5. The auto shop was a real garage.
   (a) a place for keeping newspapers
   (b) a building for repairing cars
   (c) a place for dumping garbage

6. The garage had three bays, one for each car.
   (a) spaces for working on cars
   (b) machines for washing cars
   (c) machines for painting cars

7. The hydraulic lift was built into the floor of the shop.
   (a) a machine used to raise people into the air
   (b) a machine used to raise cars into the air for repair
   (c) a machine used to wash a car

8. Jerry had watched his uncle use a tire changer at his garage.
   (a) a machine used to clean a tire
   (b) a machine used to remove tread from a tire
   (c) a machine used to take a tire off a rim and replace it with another tire

III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

1. Jerry Miller was placed in the Automobile Maintenance shop permanently.
   T

2. Jerry was not happy to be in Mr. Ford's class.
   T

3. Jerry had hoped to be trained as an auto body repairman.
   F

4. The auto shop had three bays, one for each car.
   T

5. One of the first things that Jerry noticed was the tire changer.
   T

6. The hydraulic lifts were used for raising cars off the floors.
   F

7. The students would be working on teachers' cars first.
   T

8. Jerry Miller was not excited about his new shop.
   F
9. Jerry drove his own car to school.

10. Jerry Miller wanted to learn as little as he could about auto maintenance.

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List

<table>
<thead>
<tr>
<th>attendant</th>
<th>garage</th>
<th>repairman</th>
</tr>
</thead>
<tbody>
<tr>
<td>bays</td>
<td>gasoline pump</td>
<td>tire changer</td>
</tr>
<tr>
<td>fuel</td>
<td>hydraulic lift</td>
<td>trained</td>
</tr>
</tbody>
</table>

1. The ____________ was used for putting _________ in a car.

2. Jerry Miller knew that the ____________ was used to raise cars from the floor.

3. Jerry once worked with a service station ________ pumping gas.

4. A general automobile ________ fixes cars.

5. Jerry Miller wanted to be _______________ as a gas station attendant or repairman.

6. The auto shop itself was a real ____________

7. The auto shop had three _________ one for each car.

8. Snow tires were put on new rims using a ____________

V. Vocabulary – Spelling

Directions: Print the missing letters in the following words from the story.

1. __ __ e __
2. att __ d __ t
3. b __ s
4. tr __ ed
5. re __ m __
6. gar __
7. g __ so __ e p __ m __
8. h __ dr __ ic l __ f __
9. t __ r __ ch __ er
VI. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant. The first word has been found for you.

Words to Find in Puzzle

attendant
garage
repairman
bays
gasoline pump
tire changer
fuel
hydraulic lift
trained

ACFXZTBALFINTBRPYHT
DTNRFJUGARGEGYPMFRYI
PRTLIOALEEPUEHCFTR
EAREYISCSOPNESMTCRE
OIAYNTNONHDTAWCAEAC
DNRHDCLWAILZPIEIIU
CEHEVEAIROLEZBRUYCLA
MDCKEKNRUSXHLEMNBIN
SLPENODETBNUCKINAGCG
ISCYOSEPRWRDFROYMNLE
NOALTBUDOIAASMKOIR
DRSECUSSBBEMPNEZAFZ
HJSZUVAPENAFUELTEHTR

15
AUTO SHOP SAFETY

Key Words:

absorbent  flammable
carbon monoxide  hazards
cautions  injuries
creeper  poisonous
defective  unexpectedly
emergency switch  procedures

Mr. Ford explained safety rules and procedures to Jerry and the other shop
students. He said that falls happen in an auto shop. To prevent these accidents, tools
have to be kept off the floor.

He showed the students a creeper. It is a low cart on wheels used for crawling
under cars. It could cause accidents. Never leave the creeper half way under a car. It has
to be off the floor completely or be pushed all the way under the car. Look out! A
creeper in the wrong place can unexpectedly cause a bad fall.

Jack handles can be dangerous, too. You can trip over a jack handle in its low
position. Keep the jack handle in its high position for your safety.

There are other causes for falls in the shop. Spilled oil is slippery, so oil puddles
have to be wiped up immediately. Large puddles have to be covered with an absorbent
material.
Where's that wrench, George??
Mr. Ford explained that flammable materials were used in the shop. Caution has to be used when working with them. Gasoline, oil, and other materials are examples of flammable materials. They can burn easily when they are not used properly.

Another important safety procedure that Mr. Ford explained had to do with a car's running engine in the shop. A hose has to be connected from the car's tailpipe to a hole in the floor. This hole leads outdoors. This procedure stops the poisonous gases like carbon monoxide from being breathed in by the students.

All emergency switches for the power equipment are important. In case of an accident, there is one main switch on the wall. This switch cuts off all power immediately.
Mr. Ford ended his shop safety talk with three very important rules:

1. Check hazards before starting a job.
2. Report defective tools and equipment.
3. Report all injuries.

I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry Miller learned how to change a flat tire.
2. ___ Jerry Miller and the other students learned how to cause accidents.
3. ___ Auto shop safety rules and procedures were given by Mr. Ford.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the words in dark print.

1. The safety procedure of wiping up spilled oil was explained.
   ____ (a) a machine for adding oil to a car
   ____ (b) a certain way of doing something
   ____ (c) a piece of equipment that protects oil from spreading

2. You use a creeper to get under the car.
   ____ (a) a device on wheels used to crawl under a car
   ____ (b) a device used for lifting a car off the floor
   ____ (c) a device used for lowering a car after it is raised

3. A student can unexpectedly step on a creeper and break his leg.
   ____ (a) happily
   ____ (b) usually
   ____ (c) suddenly

4. The poisonous gas from the car can cause death.
   ____ (a) having a bad smell
   ____ (b) dangerous and deadly
   ____ (c) strange
5. The slippery oil on the floor has to be wiped up for safety.
   ___ (a) very smooth and likely to cause a fall
   ___ (b) very loud and noisy
   ___ (c) dark and dirty

6. Jerry Miller uses an absorbent cloth to pick up the oil from the floor.
   ___ (a) able to spread a liquid
   ___ (b) able to take in or suck up a liquid
   ___ (c) able to mix a liquid

7. The students use caution in using power equipment.
   ___ (a) care
   ___ (b) strength
   ___ (c) a device for adding more electricity to a power tool

8. Flammable materials like gasoline and oil can be hazards in the auto shop.
   ___ (a) having a strong smell
   ___ (b) common and easy to use
   ___ (c) easily set on fire

   ___ (a) fights
   ___ (b) telephone calls
   ___ (c) dangerous happenings

10. Jerry Miller can hurt his hand using a defective power drill.
    ___ (a) not in good working order, in bad condition
    ___ (b) not powered by electricity
    ___ (c) new and in good working order

11. All injuries caused by carelessness have to be reported.
    ___ (a) jobs of an auto shop student
    ___ (b) accidents causing damage to a shop worker
    ___ (c) movements of the body
III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

   1. A creeper should always be left lying on the shop floor. 
   2. Flammable materials can be set on fire easily. 
   3. Mr. Ford explained safety rules and procedures. 
   4. Oil puddles should not be wiped up from the shop floor. 
   5. Carbon monoxide is a poisonous gas. 
   6. Mr. Ford showed the students where the main emergency switch was. 
   7. Mr. Ford said that only serious injuries had to be reported. 
   8. Students do not have to use caution in working with flammable liquids. 
   9. In using a jack on a car, the handle should be left in a low position. 
  10. Defective tools are helpful in stopping accidents in the shop.

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List:
absorbent  emergency switch  carbon monoxide  flammable  caution  hazards  creeper  injuries  defective  poisonous

1. You learned about the danger of breathing in________ gases.
2._________ _________ is a deadly gas that always must be piped out of the shop.
3. Jerry Miller and the other auto shop students have to use__________ in working with dangerous materials.
4.__________ materials can easily catch on fire.
5. The main__________ is on the wall.
6. Jerry uses a _______ to crawl under the automobile.

7. A _______ piece of equipment can cause accidents.

8. Students must report all ________

9. It is important to check ________ before starting a job.

10. Large oil puddles have to be covered with an ________ material.

V. Vocabulary – Spelling

Directions: Fill in the missing letters in the following words from the story.

1. fl ______ m ______ bl ______
2. cr ______ p ______
3. a ______ s ______ r ______ e ______ t
4. ______ a ______ a ______ d ______
5. in ______ i es
6. ______ au ______ i ______
7. p ______ o ______ e ______ u ______ e
8. c ______ b ______ n ______ m ______ n ______ x ______
9. e ______ e ______ g ______ y ______ w ______ t ______ es
10. p ______ s ______ nou ______
11. d ______ f ______ t ______ e
12. s l ______ ______ y

VI. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant. The first word has been found for you.
Words to Find in Puzzle

- absorbent
- carbon monoxide
- caution
- creeper
- defective
- emergency switches

flammable
hazard
injuries
poisonous
procedure
slippery
unexpectedly
CLEANING THE INTERIOR OF A CAR

Key Words:

interior  whisk broom
procedure  vacuum cleaner
storage area

Before a car is washed, the interior has to be cleaned first. Mr. Ford explained the correct procedure to Jerry Miller and the other shop students. The materials and equipment that Jerry needed were:

- glass cleaner
- all purpose cleaner
- whisk broom
Using a vacuum cleaner Jerry first removes all surface dirt from the car's interior. For hard to reach places, like under the seats, he uses an air hose. This device blows out the dirt. A whisk broom also comes in handy. After the dirt is blown and brushed out, Jerry vacuums it up.

Next Jerry takes the all purpose cleaner and a clean cloth. He cleans the sun visors, the top of the dashboard, the steering column, the instrument panel, arm rests, shelf under the rear window, vinyl upholstery, and all interior chrome.

Third, Jerry cleans all windows and mirrors with a glass cleaner and cloth. He lowers each window a little so he can clean all of the edges.

The job is then finished. Jerry returns all materials and equipment to the shop's storage area. Mr. Ford checks Jerry's work. He usually tells Jerry that he did a good job.

I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry Miller learned the procedure for cleaning a car's interior.
2. ___ Jerry Miller learned how to wax a car.
3. ___ Jerry Miller learned how to wash a car.
II. Getting the Meaning from the Context

Directions: Read each sentence below carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the words in dark print.

1. Jerry Miller learned the best procedure for cleaning a car.
   ___ (a) a way of doing something
   ___ (b) a tool for cleaning
   ___ (c) an all purpose cleaner

2. Jerry uses a whisk broom for hard to reach places.
   ___ (a) a tool used for washing windows
   ___ (b) a tool used for cleaning up liquids
   ___ (c) a small hand tool used for brushing dirt away

3. Jerry uses a vacuum cleaner on the rug of the car.
   ___ (a) a tool used for cleaning windows
   ___ (b) a machine used to suck up dirt
   ___ (c) a tool used for cleaning an engine

4. The interior of the car has thick carpeting.
   ___ (a) roof
   ___ (b) truck
   ___ (c) inside

5. Jerry returns all materials and equipment to the storage area.
   ___ (a) a place where things are kept for use
   ___ (b) garage
   ___ (c) shop
III. True or False

Directions: Tell whether the following statements are true or false. Label each either T or F.

1. Jerry Miller uses a vacuum cleaner to remove surface dirt.  
2. Jerry uses a window cleaner on the vinyl upholstery.  
3. A car's interior should be cleaned after the outside is washed.  
4. Jerry uses an air hose to blow out dirt from hard to reach places.  
5. Jerry uses an all purpose cleaner and a clean cloth for the sun visors, instrument panel, and vinyl upholstery.  
6. Jerry uses an all purpose cleaner on the windows and mirrors.  
7. Jerry returns all materials and equipment to the storage area when he finishes the job.

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List

interior    whisk broom
procedure   vacuum cleaner
storage area

1. A ________ ________ comes in handy for hard to reach places.
2. Jerry Miller learned the proper ________ for cleaning a car.
3. Before washing a car, the ________ has to be cleaned first.
4. Jerry uses a ________ ________ to remove surface dirt.
5. Jerry returns all materials to the ________ ________ ________

V. Vocabulary — Spelling

Directions: Fill in the missing letters in the following words from the story.

1. i _ t _ r _ r
2. _ r _ c _ d _ r _
3. _ h _ s _ b _ o _ m
4. _ _ or _ _ e _ a _ e _
5. v _ c _ u _ c _ e _ n _ r
VI. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant. The first word has been found for you.

Words to Find in Puzzle

<table>
<thead>
<tr>
<th>chrome</th>
<th>storage area</th>
</tr>
</thead>
<tbody>
<tr>
<td>dashboard</td>
<td>sun visors</td>
</tr>
<tr>
<td>instrument panel</td>
<td>vacuum cleaner</td>
</tr>
<tr>
<td>interior</td>
<td>vinyl upholstery</td>
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<tr>
<td>procedure</td>
<td>whisk broom</td>
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LAKISVDOTHLOHNYG
UEISALICTOKUBDBEN
PASHTOGSTROOONYAWTA
HYOFUEGZOPAQOOGNSR
OPYCUREDRENYUHPKE
LCVLNPKDYSCSYIUA
SAIOLDWCOSRAINANTT
TAVACUUMCLEANEREM
ENSEHNESSANKMSEKPTU
RSTEERINGCOLUMNHE
YAAKLNHRSSNTMAZSN
One of the first jobs that Jerry Miller learned in auto shop was car washing. Mr. Ford explained the correct procedure for this job. Jerry got all the necessary equipment and materials together. He needed a hose, two buckets, soap, a sponge, and some clean towels.
Jerry then made up the soap solution in the bucket. The type of soap used was the one listed in the owner's manual of the car. The correct soap won't damage the paint. Jerry also had to read directions on the soap package. He didn't know some of the words on the package. Mr. Ford helped him read those words.

After the soap solution was mixed up correctly in the bucket, Jerry brought all the equipment over to the car. Mr. Ford said that the cleanest area of the car should be washed first. Jerry started with the roof and worked down to the wheels. The diagram below shows the correct pattern that Jerry followed:

![Diagram of car washing pattern]

Jerry learned that it was first necessary to wet the car with plain water. Next Jerry took the hose in one hand and the sponge in the other. He wet and sponged the roof, windows, hood, rear deck, sides, grille, tail lights, bumpers, and wheels. Scratches were prevented and dirt was loosened by this procedure. After the car was fully sponged with plain water, Jerry soaked the sponge in the soap solution. He soaped the car with the sponge. He sprayed the roof first. Then he sponged the windows, doors, and wheels. He followed the pattern in the diagram above.

It is important to rinse the car quickly after soaping. By doing this soap streaks are prevented. Mr. Ford taught Jerry to rinse from the bottom of the car and work toward the roof. This gets the heavy dirt off first. The lighter dirt is toward the top of the car.

Jerry then wiped the car dry with a clean towel. The towel was first folded into a neat pad. He wrung out the towel often. When one surface of the folded towel became fully wet, he turned it to a drier side. He followed this procedure of wringing and refolding the towel. This method lets Jerry use all the dry sides of the towel. Less towels are needed when you use all the dry sides.

Mr. Ford told Jerry that he had done a good car wash for the first time. Jerry had never done such a good wash job before. After the car was dried, Jerry returned all of the equipment to the storage area.
I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry learned how to sponge a car.
2. ___ Jerry learned how to remove scratches from a car's body.
3. ___ Jerry learned the correct procedure for washing a car.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the word in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the words in dark print.

1. Jerry mixed up the soap solution in the bucket.
   ___ (a) powder
   ___ (b) bubbles
   ___ (c) a liquid mixture

2. The owner's manual of the car lists the kind of soap to use.
   ___ (a) a small book that tells about a car and its maintenance.
   ___ (b) dashboard
   ___ (c) trunk

3. Jerry used a sponge to wash the car.
   ___ (a) a material used for stirring soap
   ___ (b) a material used to soak up a liquid and is used in cleaning
   ___ (c) a material that takes paint off a car

4. Jerry Miller folded the towel into a pad before wiping the car.
   ___ (a) a piece of paper helpful in cleaning
   ___ (b) a piece of cloth used for drying something wet
   ___ (c) a pad of paper
5. Jerry soaped the rear deck of the car.
   (a) the trunk and back section of a car
   (b) the front or hood of a car
   (c) the top of a car

6. Jerry carefully wiped all the surfaces of the grille.
   (a) the chrome-plated open screen at the front of a car
   (b) a wheel cover
   (c) a heater

7. Streaks could be left if the soap was left on the car too long.
   (a) a beautiful shine
   (b) smooth spots
   (c) long thin marks or lines

8. Jerry washed the front and rear bumpers of the car.
   (a) metal bars that protect the main body of a car
   (b) tires
   (c) windows

9. Jerry carefully wiped the tail lights of the car with a towel.
   (a) the lights inside a car
   (b) the lights at the front of a car
   (c) the lights in the back of a car

10. After soaping the windows, Jerry sponged the car's hood.
    (a) the part of the car's body that covers the engine
    (b) another name for the car's roof
    (c) the trunk lid

III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

   1. A hard brush was used to soap the car.
2. Jerry Miller read the directions on the soap package.
3. It was necessary to first wet the car with plain water.
4. Jerry started washing the wheels of the car first.
5. Jerry rinsed the car slowly.
6. Jerry rinsed the car from bottom to top.
7. Jerry wrung out the towel often.
8. Jerry folded the towel into a ball.
9. The soap solution was mixed up in a bucket.
10. Jerry didn't do a good wash job.

IV. Finding the Correct Order

Directions: Below are the steps Jerry followed in washing a car. There is one thing wrong with them. The steps are all mixed up. Arrange them in the correct order by writing the letters in the blank spaces next to the numbers.

A. Rinse the car quickly.
B. Wet the car with plain water
C. Gather all materials and equipment together.
D. Mix up the soap solution in a bucket.
E. Fold a clean towel into a neat pad.
F. Read the directions on the soap package.
G. Return all materials and equipment to the storage area.
H. Soap the car with a sponge.
I. Wet and sponge the car together.
J. Dry the car fully with a clean towel.
V. Sentences to Complete

Directions: Here are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List
bucket  rear deck
bumpers  solution
grille  sponge
hood  streaks
owner's manual  towel

1. Jerry Miller mixed up the soap__________
2. The__________ was filled with water.
3. Jerry read the__________ ________ to see what kind of soap to use.
4. Rinsing the soap off quickly prevented soap__________
5. The front and back__________ protected the body of the car.
6. Jerry wiped the chrome-plated open__________ at the front of the car.
7. Jerry used a__________ to soap the car.
8. Jerry knew that the__________ ________ was the same as the trunk lid and back section of the car.
9. The__________ was the front section of the car covering the engine.
10. Jerry used a clean__________ to wipe the car dry.

VI. Spelling – Vocabulary

Directions: Fill in the missing letters in the following words from the story.
1. h __ d
2. b __ m __ ers
3. t __ w __ l
4. gr __ le
5. s __ n __ e
6. o __ u __ i __ n
7. o __ er' __ m __ nu __ l
8. b __ ck __ t
9. s __ r __ ks
10. r __ ar __ e __ k
VII. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant. The first word has been found for you.

Words to Find in Puzzle

bucket          rear deck
bumpers         solution
grille           sponge
hood            streaks
towel           owner's manual

I H O O D H L P T W Z Q M B I
D G J M P Q R U X R V N U K H
D H L S P O N G E M P C Z X I
V E Y Q U D F A U Z K E V K F
G B U M P E R S H E J P B N S
U C K R X D Z G T J P Q Y O X
C O W N E R S M A N U A L E R
T I D C R T X B L W C U P B M
H W K E R S N I S X T P J Z N
E K R E P A M P U I Y O G N F
L U A T A Y I D O T M P W F K
Y K K N T E N N F O I L J E T
S N A X G R I L L E A O M G L

35
30
After washing a car Jerry Miller learned the procedures of polishing and waxing. Mr. Ford explained the difference between polish and wax. Polish removes road film and makes the paint shine. The wax does not really make a car shine. Wax protects the shine by acting as a seal for the paint.
The materials that Jerry needed for polishing and waxing a car are listed below:

1. polish
2. tar remover
3. wax
4. clean cheese cloths

The first step that Jerry did was to remove any tar from the paint with tar remover. He followed the manufacturer's directions on the can. This was done to be sure he was using the product correctly. He also used the tar remover on all the door jambs (frames), hood opening, and trunk lid opening.

The second step Jerry followed was to apply the polish to the car with a clean cheese cloth. He followed the manufacturer's directions again for the type of polish he was using. Jerry began with the roof. Then he continued with the front-center of the hood. He moved in a circular pattern around the car following the numbers and the arrows.

Jerry checked all cracks (edge of hood and other cracks) for any left over polish. If this polish wasn't removed, it would leave white marks.

After the car was completely polished, Jerry waxed the car. He used a hard wax called "Blue Coral." He followed the manufacturer's directions on the can. Starting with the roof, he continued with the front-center of the hood. Jerry followed the same circular pattern as before. He waxed one panel at a time as he moved around the car. This circular pattern saves steps in walking.

When the job was finished, Jerry returned all his materials to the storage area of the shop. Mr. Ford checked Jerry's work. It was a good job.
I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry Miller learned the correct procedure for polishing and waxing a car.
2. ___ Jerry Miller learned how to remove tar.
3. ___ Jerry Miller learned how to clean door jambs (frames).

II. Getting the Meaning from the Context

Directions: Read each sentence below carefully. Pay close attention to the word in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the word in dark print.

1. Jerry Miller applied polish to the car.
   ___ (a) a material that takes off tar
   ___ (b) a material that makes the paint smooth and shiny
   ___ (c) a material that changes the color of the paint

2. After Jerry finished polishing the car, he applied wax.
   ___ (a) a material that protects the paint by sealing the shine
   ___ (b) a material that removes paint
   ___ (c) a material that removes tar

3. Jerry followed a circular pattern in polishing and waxing the car.
   ___ (a) new
   ___ (b) zig-zag
   ___ (c) round like a circle

4. Jerry followed the manufacturer’s directions on the can of wax.
   ___ (a) an explanation of how to use the wax
   ___ (b) rules that Mr. Ford made up
   ___ (c) rules that Jerry Miller made up
5. The name of the product that Jerry used was “Blue Coral.”
   ___ (a) a cloth
   ___ (b) an automobile
   ___ (c) a material that has been made

6. Jerry Miller used a clean cheese cloth for polishing and waxing the car.
   ___ (a) a cloth that smells like cheese
   ___ (b) a cloth that is very dirty
   ___ (c) a thin, loosely woven cotton cloth

III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

   1. Jerry Miller cleaned the door jambs with tar remover.
   2. Polish removes road film from a car.
   3. Polish seals the shine of the paint.
   4. Jerry checked all cracks for any left over polish.
   5. Jerry learned that wax protects and seals the shine of the paint.
   6. Jerry followed a zig-zag pattern in polishing and waxing the car.
   7. Jerry used a hard towel for polishing.
   8. Jerry knew it was important to follow the manufacturer’s directions.
   9. Jerry waxed the car with tar remover.
  10. Jerry began the polishing and waxing procedures with the roof of the car.

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List

cheese cloth  polish
  circular  product
  manufacturer’s directions  wax
1. Jerry followed the ________ _________ on the can of polish.
2. He used a clean ________ _________ for applying the polish.
3. Jerry learned that ________ removes road film.
4. He followed a ________ pattern around the car.
5. Mr. Ford told Jerry that ________ protects and seals the shine.
6. The name of the wax ________ that Jerry used was “Blue Coral.”

V. Vocabulary – Spelling

Directions: Fill in the missing letters in the following words from the story.
1. m ___ n ___ f ___ c ___ u ___ e ___’s d ___ r ___ c ___ i ___ n ___
2. ___ o ___ i ___ h
3. p ___ o ___ u ___ t
4. w ___
5. ___ ee ___ e ___ oth
6. c ___ c ___ l ___ r
VI. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant.

Words to Find in Puzzle

- cheese cloth
- polish
- circular
- product
- manufacturer's directions
- wax

MANUFACTURERS XVS
DIRECTIONS BOQRAP
KDLTWHCVCREDAOXUD
ZBPHERMENVFIXJDLO
MVRUCFBEFINTNHGHOO
DGEBIKSKSQUPHR
JNDKFAZYLERSP
LATYJFICHOGBA
RECZDPICL
NATQYMSRUVIPUXWS
PHDGOIXCOSPFLTUO
JNTPMSXAHHLKRQH
Jerry Miller knew that changing the oil in a car's engine was important. Oil picks up dust, water, gasoline, and other kinds of dirt. The only way to get rid of such dirt was to change the oil regularly.

Jerry used the following tools and equipment to change a car's oil:
Mr. Ford explained the procedure for changing oil. First, warm the car’s engine to running temperature. Warm oil is thin enough to flow correctly. Jerry ran the car’s engine until it was warm. Then he drove the car onto the lift. He shut off the engine and raised the car off the floor. He placed the drain can under the plug of the oil pan to catch the oil. Jerry removed the plug with a crescent wrench. The oil drained completely. Next, he replaced the plug tightly. He lowered the car to the floor and opened the hood.

Jerry looked at the owner’s manual for the car. It told him what oil to use and how much to add. It also gave the S.A.E. number of the oil. Mr. Ford told him that S.A.E. stood for the Society of Automotive Engineers. The car needed five quarts of S.A.E. 10W-40W oil. This oil could be used all year round.

Jerry then opened the cans of oil. He used a combination opener-funnel device. The car’s engine needed five quarts. Jerry unscrewed the oil filler cap. He poured each quart of oil into the crankcase of the engine. Then he replaced the oil filler cap.

He started the engine and let it idle for a few minutes. The oil could then circulate through the different passageways. Then he shut the engine off. Jerry next measured the oil level. He wiped off the dipstick with a rag. He pushed it down as far as it could go. He pulled out the stick. He checked the level of the oil against the markings on the dipstick. He saw that the oil reached the “full” mark. Then he replaced the dipstick in its tube and closed the hood.
The oil change was finished. Jerry returned all of his tools and equipment to the storage area. Mr. Ford checked Jerry's work. He was pleased with the job Jerry had done. It was done carefully and neatly.

I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry Miller learned how to raise a car on a lift.
2. ___ Jerry Miller learned how to give an oil change.
3. ___ Jerry Miller became unhappy in Mr. Ford's shop.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the word in dark print.

1. Jerry used a drain can to catch the oil.
   ___ (a) a container for holding old, dirty oil
   ___ (b) a glove used in changing oil
   ___ (c) a tool used for wiping oil off the floor

2. Jerry loosened the plug so the oil could flow out.
   ___ (a) a tool for adding oil to the engine
   ___ (b) a tool that lets oil move freely in the engine.
   ___ (c) a bolt that keeps oil from leaking out.

3. The S.A.E. number on the oil can was 10W-40W.
   ___ (a) Service Association of Europe
   ___ (b) Society of Automotive Engineers
   ___ (c) Selling Adults Everything

4. He let the oil circulate through the passageways.
   ___ (a) leak out
   ___ (b) move very freely
   ___ (c) get thick
5. Jerry used a crescent wrench to loosen the plug.
   ___ (a) a tool used to loosen and tighten parts
   ___ (b) a tool for opening a can of oil
   ___ (c) a tool used for pouring oil into an engine

6. Jerry saw that the oil on the dipstick was on the “full” mark.
   ___ (a) a special can for holding oil
   ___ (b) a tool for adding oil to an engine
   ___ (c) a narrow rod with markings for checking the oil level.

7. The oil Jerry added flowed into the crankcase.
   ___ (a) a heavy, metal case forming the bottom part of an engine
   ___ (b) a garbage can
   ___ (c) a drain can

8. Jerry unscrewed the oil filler cap to add new oil.
   ___ (a) a hat worn when giving oil changes
   ___ (b) the cover which leads into the crankcase of the engine
   ___ (c) the top of the oil drain can

9. He let the engine idle for a few minutes.
   ___ (a) run at its slowest
   ___ (b) cool down
   ___ (c) speed up

III. True or False

Directions: Tell whether the following statements are true or false. Label each either T or F.

___ 1. Oil picks up dirt in a car’s engine.
___ 2. Oil changes should be done once in a great while.
___ 3. Jerry Miller used a crescent wrench to unscrew the plug.
___ 4. Jerry used a dipstick to open a can of oil.
___ 5. Jerry started the engine to get it to running temperature.
6. The oil that Jerry added could be used only in the summer.
7. Jerry poured each quart of oil into the crankcase.
8. Jerry let the engine idle for a few minutes.
9. Jerry did a sloppy, careless job.
10. Mr. Ford was pleased with Jerry's work.

IV. Finding the Correct Order

Directions: Below are the steps Jerry followed in giving an oil change. There is one thing wrong with them. The steps are all mixed up. Arrange them in the correct order by writing the letters in the blank spaces.

A. Pour the oil into the crankcase of the engine.
B. Lower the car to the floor and open the hood.
C. Place the drain can under the plug of the oil pan.
D. Shut off the engine.
E. Check dipstick to see if new oil reaches the "full" mark.
F. Read owner's manual for correct type of oil.
G. Raise the car off the floor using the lift.
H. Warm the car's engine to running temperature.
I. Remove the plug of the oil pan.
J. Unscrew the oil filler cap.
K. Replace oil filler cap and let engine idle for a few minutes.
L. Replace the plug tightly.

V. Vocabulary — Spelling

Directions: Fill in the missing letters in the following words from the story.
1. d____a____n  c____n
2. c____e____c____n____ w____e____c____
3. d____p____t____c____
4. o____l____p____n
5. c____a____k____a____e
VI. Sentences to Complete

Directions: Here are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List

<table>
<thead>
<tr>
<th>circulate</th>
<th>idle</th>
</tr>
</thead>
<tbody>
<tr>
<td>crankcase</td>
<td>oil filler cap</td>
</tr>
<tr>
<td>crescent wrench</td>
<td>oil pan</td>
</tr>
<tr>
<td>dipstick</td>
<td>plug</td>
</tr>
<tr>
<td>drain can</td>
<td>S.A.E.</td>
</tr>
</tbody>
</table>

1. The oil could ______ freely through the passageways.
2. Jerry Miller loosened the _______ of the _________
3. Jerry let the car ________ for a few minutes.
4. He removed the _______ _______ _________
5. Jerry used a _______ _______ to loosen the plug.
6. He poured five quarts of oil into the _______ of the engine.
7. The type of oil was _______ 10W-40.
8. Jerry checked the ________ to see the oil level.
9. He placed the _______ _______ under the car to catch the oil.
VII. Word Find Puzzle

Directions: Find the following word(s) in the puzzle. Draw a circle around each. They may be going across, down, or on a slant.

Words to Find in Puzzle

- circulate
- idle
- crankcase
- oil filler cap
- crescent wrench
- oil pan
- dipstick
- plug
- drain can
- S.A.E.

48
Jerry Miller learned about oil filters. An oil filter was used to remove dirt from the engine's oil. It became clogged after about 5,000 miles. At this point it had to be changed. Jerry learned how to change an oil filter. The tools and equipment he needed were:

- oil filter wrench
- drain can
- lift
- new oil filter

Key Words:

base  installed

clogged  mounted

gasket  oil filter
Jerry followed the procedure Mr. Ford had explained. First Jerry raised the car on the lift. He placed the drain can under the filter. The drain can caught the leaking oil. Jerry then loosened the filter with the special wrench. He turned the open end of the filter up while removing it from its base. Next he removed the old gasket from the filter base. He cleaned the base thoroughly. Jerry then took a new oil filter. He installed a new base basket at the end of the filter. He made sure the gasket was fully seated. Finally, he mounted the new filter on the base. It had to fit tightly.

Jerry returned all the tools and equipment to the storage area. Finally, he lowered the car to the floor. The job was finished.

I. Getting the Main Idea

*Directions:* Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. ___ Jerry Miller learned how to change a flat tire.
2. ___ Jerry Miller learned how to use a lift.
3. ___ Jerry Miller learned how to change an oil filter.

II. Getting the Meaning from the Context

*Directions:* Read each sentence below carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the words in dark print.

1. The oil filter was used to remove dirt from the engine's oil.
   ____ (a) a tool used for lifting a car
   ____ (b) a device used to help keep engine oil cleaner.
   ____ (c) a tool used for lowering a car
2. Jerry Miller installed the filter in the correct place.
   (a) take out
   (b) replace
   (c) put in

3. Jerry Miller sealed the oil filter with a new gasket.
   (a) a rubber ring used to keep the oil from leaking out.
   (b) a tool used for pulling
   (c) a tool used for removing oil filters

4. The old oil filter was clogged with dirt.
   (a) replaced
   (b) filled, or blocked up
   (c) emptied

5. He mounted the oil filter on its base.
   (a) thrown out
   (b) removed
   (c) placed in position

6. Jerry put a new gasket at the base of the filter.
   (a) top
   (b) side
   (c) bottom

III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

1. Jerry Miller used a pump to replace an oil filter.
   T

2. Jerry Miller used a special wrench to replace an oil filter.
   F

3. An oil filter was used to remove dirt from the engine's oil.
   T

4. Jerry used the same gasket from the old filter for the new one.
   T

5. Jerry mounted the new filter on the base.
   T

6. Jerry used a drain can to catch the leaking oil.
   F
IV. Sentences to Complete

*Directions:* Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

**Word List**

- base
- installed
- clogged
- mounted
- gasket
- oil filter

1. The ___________ became ___________ after 5,000 miles.
2. Jerry Miller ___________ the new filter on its ___________.
3. Jerry made sure the new ___________ was fully seated.
4. He ___________ a new gasket at the one end of the filter.

V. Finding the Correct Order

*Directions:* Below are the steps Jerry Miller followed in installing a new oil filter. There is one thing wrong with them. The steps are all mixed up. Arrange them in the correct order by writing the letters in the blank spaces.

- A. Remove the old gasket from the filter base.
- B. Raise the car on the lift.
- C. Install a new gasket at the proper end of the new filter.
- D. Place the drain can under the old oil filter.
- E. Make sure the gasket is fully seated.
- F. Loosen and remove old oil filter with a special wrench.
- G. Lower car to floor.
- H. Return all tools and equipment to the storage area.
- I. Clean the base thoroughly.
- J. Mount the new filter on its base until it fit tightly.

**Step No.**

1. ___________
2. ___________
3. ___________
4. ___________
5. ___________
6. ___________
7. ___________
8. ___________
9. ___________
10. ___________

VI. Vocabulary – Spelling

*Directions:* Fill in the missing letters in the following words from the story.

1. i __ s __ a __ l __ d
2. o __ l __ i __ t __ r
3. g __ s __ e
4. __ a __ e
5. c __ o __ g __ d
6. m __ u __ t __ i
VII. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant.

Words to Find in Puzzle

<table>
<thead>
<tr>
<th>base</th>
<th>installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>clogged</td>
<td>mounted</td>
</tr>
<tr>
<td>gasket</td>
<td>oil filter</td>
</tr>
</tbody>
</table>

L K E C P I R A D B R C R B D B
P J P G E P C E T H V I Y K I D
U S B O M O T Y R U C V O J R K
H C B A S N I A L S T L K Y L I
T I L A U N V E I U V L F R P U
Y N O O I L F I L T E R I U T G
Y P M U G T M L N B T N Y O T R
O B P V R G X Y X S E C A U V T
F L A W A I E N X G T G Z L O O
L P Y S N E I D X O N A O V C G
S A K C E J L C A H O H L S I A
C E A U N O N O A E F O G L I N
T R S U C B M K E T I M M T E L
E P L M X T A C K V W E H I T D
With each oil change, the car's chassis had to be lubricated with grease. The chassis is the frame and machinery that supports the body. It has various fittings, and these fittings have moveable parts. The parts must be lubricated to work smoothly.
Mr. Ford explained to Jerry Miller how to do a grease job (lubrication of the chassis). First, Jerry raised the car on the lift. Next he located and cleaned all fittings. He cleaned them with a rag. If this was not done, the new grease would seep out. Some of the fittings were the steering linkage, suspension parts, and steering gear. These fittings have a seal around them. Then Jerry counted all the fittings. He compared his number with the number in the owner’s manual. This prevented him from missing any fittings. Using the grease gun Jerry carefully injected the lubricant into the fittings. He injected enough grease until he noticed movement in the seal of the fitting. He made sure not to miss any points of lubrication.

Then he returned the grease gun to its storage area. Finally, Jerry lowered the car to the floor. Mr. Ford was pleased with Jerry’s work.

I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that sentence.

1. Jerry Miller learned the procedure of fixing a flat tire.
2. Jerry Miller learned how to fix the steering linkage.
3. Jerry Miller learned the procedures of a grease job.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the word(s) in dark print.

1. Jerry Miller lubricated the chassis with grease.
   (a) made smooth and easy to work
   (b) made harder to work
   (c) made larger to work

2. Jerry counted the number of fittings to be lubricated.
   (a) wheels
   (b) cloths
   (c) points of lubrication having moveable parts
3. Jerry learned how to grease the chassis of the car.
   ____ (a) the roof
   ____ (b) the frame and machinery that supports the body
   ____ (c) the steering wheel

4. He used the grease gun to lubricate the car.
   ____ (a) a tool used to take the chassis apart
   ____ (b) a tool used to apply grease
   ____ (c) a weapon used to defend a person against "greasers"

5. Cleaning the fittings was important so the grease would not seep out.
   ____ (a) leak slowly through small openings
   ____ (b) wear out
   ____ (c) fly quickly

6. Jerry injected the lubricant into the fittings with the grease gun.
   ____ (a) to remove
   ____ (b) to uncover
   ____ (c) to force or drive into

7. The seal around the fitting moved.
   ____ (a) a device which is wrapped around a fitting
   ____ (b) a device that makes sounds like a duck
   ____ (c) another name for grease

8. Jerry read the owner's manual for the correct number of fittings.
   ____ (a) a car magazine
   ____ (b) an automotive newspaper
   ____ (c) a book that tells about a car and its maintenance

9. The lubricant that Jerry used was grease.
   ____ (a) stuff that makes moving parts wear out.
   ____ (b) stuff that makes moving parts work smoothly
   ____ (c) stuff that causes harm to moving parts.
III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

1. The chassis has to be lubricated with each oil change. T
2. Jerry did not clean the fittings with a rag. F
3. Jerry knew it wasn’t important to read the owner's manual. F
4. Some of the fittings were the steering linkage, suspension parts, and steering gear. T
5. Jerry used a rifle to shoot grease into the fittings. F
6. When the seal moved, Jerry knew there was enough grease in the fitting. T
7. Cleaning the fittings first prevented the grease from seeping out. T
8. Mr. Ford was not pleased with Jerry’s work. T

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List
chassis injected owner’s manual
fittings lubricant seal
grease gun lubricated seep

1. The _________ Jerry Miller used was grease.
2. Jerry used a _________ _________ to shoot the grease into the proper places.
3. The _________ had moveable parts and had permanent_________ around them.
4. If the fittings were not cleaned first, the grease would_________ out.
5. The _________ was the frame and machinery that holds up the car's body.
6. The fittings were _________ with grease.
7. Jerry_________ the grease with the gun.
8. He read the _________ _________ for the correct number of fittings.
V. Finding the Correct Order

Directions: Below are the steps that Jerry Miller followed in doing a grease job. There is one thing wrong with them. The steps are all mixed up. Arrange them in the correct order by writing the letters in the blank spaces.

A. Return the grease gun to its storage area.
B. Lower the car to the floor.
C. Locate and clean all fittings with a rag.
D. Raise the car off the floor.
E. Count all the fittings.
F. Inject the lubricant with a grease gun into all the fittings.
G. Compare the number of fittings counted with the number in the owner's manual.

Step No.
1. ________
2. ________
3. ________
4. ________
5. ________
6. ________
7. ________

VI. Vocabulary – Spelling

Directions: Fill in the missing letters in the following words from the story.
1. l__b__i__a__t
2. ch__s__s__s
3. __c__se__g__n
4. s__a__
5. __e__p
6. f__t__i__s
VII. Word Find Puzzle

Directions: Find the following words hidden in the puzzle. Draw a circle around each. They may be going across, down, or on a slant.

Words to Find in Puzzle

chassis
fittings
grease gun
injected

lubricant
owner's manual
seal
seep

O A C U O Q W S Y B S F P Z
C W F B U E W H D F L I R T
G I N J E C T E D Y Q T N J
X O S E A L S B H G Z T D J
L C J X R E D O K G M I T S
H U G N T S A F S B T N Q L
E L B I Q K M J P L Z G M U
J F T E U C H A S S I S Y B
V S V W P W C Y N X Q R W R
W U G R E A S E G U N P Z I
L B A X O I E I M N A M N C
H T C I B R E V D V H L G A
U L S K R W P N Z J K M L N
B T A B W I V A Y H X U K T
Another common job that Jerry Miller learned was mounting a tire on a rim. Proper equipment had to be used to mount tires.

The following tools and equipment were necessary:

- tire mounting machine
- tire and rim assembly
- wire brush
- two tire irons
The first step that Jerry did was to prepare the rim. He used a stiff wire brush to clean and smooth the flanges and rim sealing area.

The second step Jerry followed was to lubricate the tire beads, rim flanges, and bead ledge areas. He used a rubber lubricant with an applicator for this purpose. Mr. Ford taught Jerry to use a generous amount of lubricant. A thin vegetable oil-soap solution could have also been used.

The third step was to place the rim correctly on the tire mounting machine. Jerry then started one part of the tire bead over the rim. At the same time he pried the bead over the rim edge with the tire irons.
The fourth step was to drop the "worked" part of the bead into the groove of the rim. Jerry used a tire mallet for this job. Jerry then continued this procedure until the whole bead was in the groove of the rim.

The fifth step was to adjust the tire on the rim. Jerry made sure to line it up so the valve stem was in the right place.

The sixth step was to pry the second bead of the tire into place. He followed the same procedure as before.

Finally Jerry inflated the tire with air. He made sure that it centered itself on the rim. Jerry stood safely away from the tire while he inflated it. If the bead had not been seated right, it could explode outward against the rim flange. The air pressure could force the flange right off and injure Jerry. Mr. Ford always reminded Jerry and the other shop students about safety.

Jerry inflated the tire to no more than 40 pounds. The beads were properly seated. He then lowered the pressure to its proper amount. The tire was now correctly mounted. Mr. Ford checked Jerry's work. It was well done. Both Mr. Ford and Jerry were pleased.

I. Getting the Main Idea

Directions: Below are three sentences. One of them tells the main idea of what you just read. Put an X next to that meaning.

1. ____ Jerry Miller learned how to repair a flat tire.
2. ____ Jerry Miller learned how to mount a tire.
3. ____ Jerry Miller learned how to balance a tire.

II. Getting the Meaning from the Context

Directions: Read each sentence carefully. Pay close attention to the words in dark print. There are three meanings after each sentence. Put an X next to the best meaning for the words in dark print.
1. Jerry Miller had to adjust the tire on the rim.
   ___ (a) to remove
   ___ (b) to steal
   ___ (c) to fit

2. He pried the tire bead over the edge of the rim using a tire iron.
   ___ (a) to wet with soap
   ___ (b) to raise or move by force
   ___ (c) to break

3. Mounting a tire on a rim took practice.
   ___ (a) pumping air into
   ___ (b) putting in proper position
   ___ (c) removing air from

4. Jerry dipped the applicator in the rubber lubricant solution.
   ___ (a) a tool used to put stuff on something else
   ___ (b) a tool used for prying
   ___ (c) a tool used for fastening two things together

5. He used a generous supply of lubricant on the tire beads.
   ___ (a) small
   ___ (b) dirty
   ___ (c) large

6. Jerry seated the tire on the rim.
   ___ (a) pumped air into
   ___ (b) sat on top of
   ___ (c) set or placed in position

7. Jerry inflated the tire with air.
   ___ (a) blew up with a gas
   ___ (b) lowered the pressure of
   ___ (c) balanced
8. Jerry had to lubricate the tire beads.
   ____ (a) to pump with air
   ____ (b) to count
   ____ (c) to make smooth and easy to work

III. True or False

Directions: Tell whether the following statements are true or false. Label either T or F.

   1. The rim for the tire had flanges.
   2. Jerry used gasoline to lubricate the beads of the tire.
   3. Jerry used a tire mallet to get the tire bead into the rim's groove.
   4. Jerry Miller inflated the tire to 60 pounds.
   5. Jerry used a small amount of lubricant on the tire bead.
   6. Jerry adjusted the tire so the valve stem was in the proper place.
   7. Jerry stood away from the tire while he inflated it.
   8. Mr. Ford was pleased with Jerry's work.

IV. Sentences to Complete

Directions: Below are some sentences. Some words have been left out. Fill in each blank with the correct word from the list.

Word List

adjust    lubricate
applicator    mounting
generous    pried
inflated    seated

1. Jerry Miller ________ the bead over the rim edge with the tire irons.
2. He used a rubber lubricant to ________ the tire beads.
3. Jerry learned the procedure for ________ a tire.
4. Jerry dipped the ________ into the lubricant solution.
5. He ________ the tire beads on the rim.
6. Jerry had to ________ the tire on the rim.
7. He used a ________ amount of lubricant on the tire beads.
8. He ________ the tire with air to no more than 40 pounds.
V. Vocabulary – Spelling

*Directions:* The vocabulary words listed in column A have been scrambled. Write the correct letter from column B in each blank space that matches the unscrambled word listed in column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>tfedlnai</td>
<td>a) adjust</td>
</tr>
<tr>
<td>dpire</td>
<td>b) applicator</td>
</tr>
<tr>
<td>senegruo</td>
<td>c) generous</td>
</tr>
<tr>
<td>sjatud</td>
<td>d) inflated</td>
</tr>
<tr>
<td>astdee</td>
<td>e) lubricate</td>
</tr>
<tr>
<td>utongimn</td>
<td>f) mounting</td>
</tr>
<tr>
<td>turcbiela</td>
<td>g) pried</td>
</tr>
<tr>
<td>procpiiaa</td>
<td>h) seated</td>
</tr>
</tbody>
</table>
VI. Word Find Puzzle

Directions: Find the following words in the puzzle. Draw a circle around each. They may be going across, down, or on a slant.

Words to Find in Puzzle

adjust  lubricate
applicator lubricant
bead mallet
flange mounting
generous pried
inflated seated

MAL LETALCQUIEZBK
EOCEGLHUBLRICANTF
JLUNPRTIYPYPUSSQOM
FLANGEBDRHJKLIGG
MOQSTAFHIOLIAxee
YMXTIGAEEEANMDYN
DBFDCTNLDPSFDRJE
UAANSRKGBTULELSR
KGULARPPPLICATORO
OIJSMAPULICTORU
EDANTEBEADEESSES
ARIIEROEODADSRAN
YBKAIREDZOORSHBUR
KLRCINOOESOSGDHN
ORAZRNCUNUTPLSOA
HTARDKOTSADLRNOL
ETIREIRONLVISTNO
State of New Jersey
Department of Education
Division of Vocational Education

AUTOMOBILE MAINTENANCE
READING AND LANGUAGE ACTIVITIES

ANSWER KEY

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July 1976
Lesson 1. A New School

I. Getting the Main Idea
2. X

II. Getting the Meaning from the Context
1. a 4. c
2. b 5. a
3. a 6. a

III. True or False
1. F 6. T
2. F 7. F
3. T 8. F
4. F 9. T
5. T 10. T

IV. Sentences to Complete
1. nervous 5. schedule
2. attended 6. automobile maintenance
3. several 7. permanently
4. vocational 8. homeroom

V. Find the Missing Letters
1. n e r v o u s
2. v o c a t i o n a l
3. p e r m a n e n t l y
4. a t t e n d e d
5. s e v e r a l
6. s c h e d u l e
7. h o m e r o o m
8. a u t o m o b i l e m a i n t e n a n c e
Lesson 2. A New Shop

I. Getting the Main Idea
2. X

II. Getting the Meaning from the Context
1. c 5. b
2. b 6. a
3. a 7. b
4. c 8. c

III. True or False
1. T 6. T
2. F 7. F
3. F 8. F
4. T 9. T
5. F 10. F

IV. Sentences to Complete
1. gasoline pump, fuel 5. trained
2. hydraulic lift 6. garage
3. attendant 7. bays
4. repairman 8. tire changer

V. Find the Missing Letters
1. fuel
2. attendant
3. bays
4. trained
5. repairman
6. garage
7. gasoline pump
8. hydraulic lift
9. tire changer
VI. Word-Find Puzzle
Lesson 3.  Auto Shop Safety

I.  Getting the Main Idea
3.  X

II.  Getting the Meaning from the Context
1.  b  5.  a  9.  c
2.  a  6.  b  10.  a
3.  c  7.  a  11.  b
4.  b  8.  c

III.  True or False
2.  T  6.  T  10.  F
3.  T  7.  F
4.  F  8.  T

IV.  Sentences to Complete
1.  poisonous  6.  creeper
2.  carbon monoxide  7.  defective
3.  caution  8.  injuries
4.  flammable  9.  hazards
5.  emergency switch  10.  absorbent

V.  Find the Missing Letters
1.  flamm__ble
2.  c__e__er
3.  a__s__ort__ent
4.  h_aza__d_s
5.  in_jurer_s
6.  caution
7.  pro__dure
8.  c_arbon mo_no__de
9.  e_mergency sw__ches
10.  po_is_onous
11.  de_fe_c_tive
12.  sl_i_pper_v

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VI. Word-Find Puzzle
Lesson 4. Cleaning the Interior of a Car

I. Getting the Main Idea
1. X

II. Getting the Meaning from the Context
1. a 4. c
2. c 5. a
3. b

III. True or False
1. T 5. T
2. F 6. F
3. F 7. T
4. T

IV. Sentences to Complete
1. whisk broom 4. vacuum cleaner
2. procedure 5. storage area
3. interior

V. Find the Missing Letters
1. interior
2. procedure
3. whisk broom
4. storage area
5. vacuum cleaner
VI. Word-Find Puzzle

TODWERA  WHISKBROOMS
VNMIOIGUTINFRNHTON
INSTRUMENTPANELIDO
NONUEYNTTELEZDGARR
YIATNANCHROMEUSANA
LAKISVDOVITHLHONYG
UESALICTOKUBDBENE
PASHTOGSTROQUYAWTA
HYOFUEGZOPAQUOGRS
IPROCEDURENYUHPK
ELCVNLTPKDYSCSYIUOA
SAIOLDWCOSRCANOANTT
TAVACUUMCLEANEREIM
ENSEHINESANKMSKEPTU
RSTEERINGCOLUMNIHE
YAALKLNHJRBSNMTMAZSN

75
Lesson 5. Washing a Car

I. Getting the Main Idea
3. X

II. Getting the Meaning from the Context
1. c 6. a
2. a 7. c
3. b 8. a
4. b 9. c
5. a 10. a

III. True or False
1. F 6. T
2. T 7. F
3. T 8. T
4. F 9. T
5. F 10. T

IV. Finding the Correct Order
1. c 5. h
2. f 7. a
3. d 8. e
4. b 9. j
5. i 10. g

V. Sentences to Complete
1. solution 6. grille
2. bucket 7. sponge
3. owner's manual 8. rear deck
4. streaks 9. hood
5. bumpers 10. towel

VI. Find the Missing Letters
1. hood
2. bumpers
3. towel
4. grille
5. sponge
6. solution
7. owner's manual
8. bucket
9. streaks
10. rear deck

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VI. Word-Find Puzzle

I X  H O O D H L P T W Z Q M B I
D G J M P Q R U X R V N U K H
D H L X P O N G E M P C Z X I
V E Y O U D F A U Z K E V K F
G B U M P E R S H E J P B N S
U C K R X D Z G T J P Q Y O X
C O W N E R S M A N U A L E R
T I D C R T X B L W C U P B M
H W K E R S N I S X T P J Z N
E K R E P A M P U I Y O G N F
L U A T A Y I D O T M P W F K
Y K K N T E N N F O I L J E T
S N A X G R I L L E A O M G L
Lesson 6. Polishing and Waxing a Car

I. Getting the Main Idea
1. X

II. Getting the Meaning from the Context
1. b 4. a
2. a 5. c
3. c 6. c

III. True or False
1. T 6. F
2. T 7. F
3. F 8. T
4. T 9. F
5. T 10. T

IV. Sentences to Complete
1. manufacturer's directions
2. cheese cloth
3. polish
4. circular
5. wax
6. product

V. Find the Missing Letters
1. manufacturer's directions
2. polish
3. product
4. wax
5. cheese cloth
6. circular
VI. Word-Find Puzzle

MANUFACTURERS

DIRECTIONS

79
Lesson 7. Changing the Oil

I. Getting the Main Idea
2. X

II. Getting the Meaning from the Context
1. a  4. b  7. a
2. c  5. a  8. b
3. b  6. c  9. a

III. True or False
1. T  6. F
2. F  7. T
3. T  8. T
4. F  9. F
5. T  10. T

IV. Finding the Correct Order
1. h  5. i  9. j
2. d  6. k  10. a
3. g  7. b  11. l
4. c  8. f  12. e

V. Finding the Missing Letters
1. d r a i n  c a n
2. c r e s c e n t  w r e n c h
3. d i p s t i c k
4. o i l  p a n
5. c r a n k c a s e
6. p l u g
7. o i l  f i l l e r  c a p
8. c i r c u l a t e
9. i d l e
10. S. A. E.

VI. Sentences to complete
1. circulate  6. crankcase
2. plug, oil, pan  7. S. A. E.
3. idle  8. dipstick
4. oil filter cap  9. drain can
5. crescent wrench
VII. Word-Find Puzzle

L B E H K O V H O D U I W P L I F C
R U Z A D M P S I V C T Q N J E B Q
W D M T D O Q P L U G N R S P E X
G V L Y R Z S A F N S M T B A U A F
W B F X A T O G I V A H Q C Y A Z E
J N D M I P Q U L I K W K C E J R D
S X B C N R C T L E V N E U I Y B K
H L K G C X O F E L A K P J U W N O
P J Y I A M G N R R U V F X Z C F S
X I D O N C T W C I R C U L A T E L
H P A H E D J G A S D M L U K W V T
O I L P A N Y A P H Q L R Z P A B Z
N T Y C G L O Q R I R K E F B X S M
D C R E S C E N T W R E N C H J G A

81
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Lesson 8. Changing an Oil Filter

I. Getting the Main Idea
3. X

II. Getting the Meaning from the Context
1. b 4. b
2. c 5. c
3. a 6. c

III. True or False
1. F 4. F
2. T 5. T
3. T 6. T

IV. Sentences to Complete
1. oil filter, clogged
2. mounted, base
3. gasket
4. installed

V. Finding the Correct Order
1. b 6. c
2. d 7. e
3. f 8. j
4. a 9. h
5. i 10. g

VI. Find the Missing Letters
1. installed
2. oil filter
3. gasket
4. base
5. clogged
6. mounted
VII. Word-Find Puzzle

L K E C P I R A D B R C R B D B
P J P G E P C E T H V I Y K I
U S B O M O T Y R U C V O J R K
H C B A S N I A L S T L K Y L I
T I L A U N V E I U V L F R P U
Y N O O I L F I L T E R I U T G
Y P M U G T M L N B T N Y O T R
O B P V R C X Y X S E C A U V T
F L A W A I E N X G T G Z L O O
L P Y S N E I D X O N A O V C G
S A R C E J L C A H O H L S I A
C E A U N O N O A E F O G L I N
T R S U C B M K E T I M M M T E L
E P L M X T A C K V W E H I T D

83

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Lesson 9. Lubricating the Chassis

I. Getting the Main Idea
   3. X

II. Getting the Meaning from the Context
   1. a  4. b  7. a
   2. c  5. a  8. c
   3. b  6. c  9. b

III. True or False
   1. T  5. F
   2. F  6. T
   3. F  7. T
   4. T  8. F

IV. Sentences to Complete
   1. lubricant  5. chassis
   2. grease gun  6. lubricate
   3. fittings, seals  7. injected
   4. seep  8. owner's manual

V. Finding the Correct Order
   1. d  5. f
   2. c  6. a
   3. e  7. b
   4. g

VI. Find the Missing Letters
   1. lubricant
   2. chassis
   3. grease
   4. seal
   5. seep
   6. fittings
VII. Word-Find Puzzle
Lesson 10. Mounting a Tire

I. Getting the Main Idea
2. X

II. Getting the Meaning from the Context
1. c 5. c
2. b 6. c
3. b 7. a
4. a 8. c

III. True or False
1. T 5. F
2. F 6. T
3. T 7. T
4. F 8. T

IV. Sentences to Complete
1. pried
2. lubricate
3. mounting
4. applicator
5. seated
6. adjust
7. generous
8. inflated

V. Finding the Correct Order
1. d 5. h
2. g 6. f
3. c 7. e
4. a 8. b
VI. Word-Find Puzzle