Name _____ Date _____ Hour _____

ACTIVITY 12.1

Unit Word Search

compression stroke
cutting tool
driving tool
exhaust stroke
hand tool
intake stroke
internal combustion
layout tool
measuring tape
power stroke
ruler
spark plug
turning tool

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

Name _____ Date _____ Hour _____

ACTIVITY 12.2

SAFETY STORIES

Student Materials
Pencil
Student Book

Choose one of the safety steps on page 158 of the Student Book.

Safety Step

_____

Write a story about the safety step and why you should follow it or what happens if you don't follow it. Share your story with the class.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Name _____ Date _____ Hour _____

ACTIVITY 12.3 MEASUREMENTS

Student Materials
Ruler
Pencil

Use a ruler to draw a line that is equivalent to the measurement.

1. 1/16 in
2. 1/8 in
3. 1/4 in
4. 1 in
5. 1 1/16 in
6. 1 3/8 in
7. 2 5/8 in
8. 3 1/2 in
9. 5 3/16 in
10. 4 1/16 in

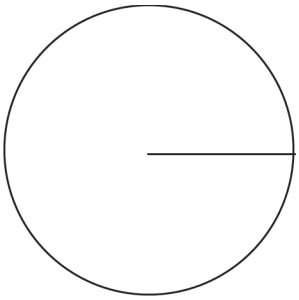
Name _____ Date _____ Hour _____

ACTIVITY 12.4

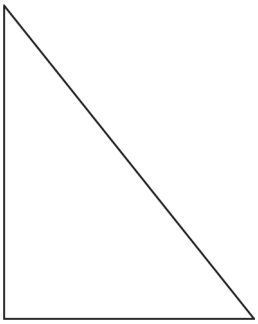
Calculations in Agricultural Mechanics

Student Materials
Pencil
Ruler

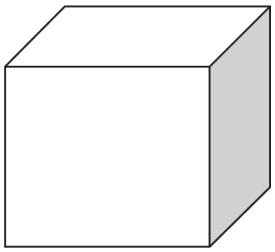
1. Using a ruler, measure the radius of the circle below to the nearest 1/8 inch. Determine the area of the circle.

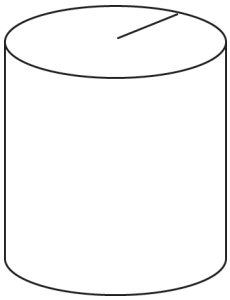


2. Using a ruler, measure the base and height of the triangle to the nearest 1/8 inch. Determine the area of the triangle.



3. Using a ruler, measure the length of each side of the box to the nearest 1/8 inch. Determine the volume.





4. Using a ruler, measure the radius and height of the cylinder. Determine the volume of the cylinder.

5. A paint that will cover 350 square feet of surface per gallon costs $17.95 per gallon. If a barn has 1,255 square feet of surface to be painted, what will the paint cost to paint the barn?

6. What is the volume of a fuel storage tank that is 18 inches in diameter and 46 inches in height?

7. Rubber mats cost $4.45 per square foot. What would is cost to install rubber mats in a horse stall that is 210 square feet?

8. A dirt pad for a barn needs to be 40 ft X 60 ft X 1 ft. How much cubic feet of dirt is needed to build the pad?

Name _____ Date _____ Hour _____

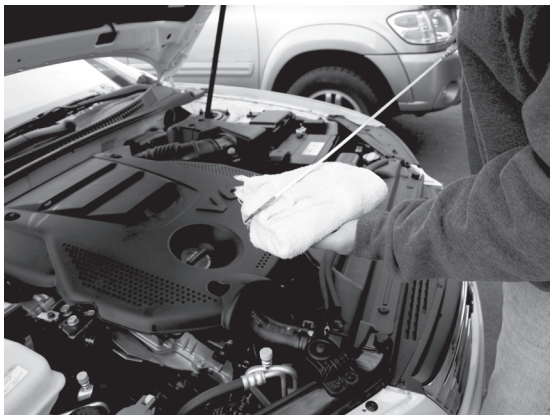
ACTIVITY 12.5

Checking Oil

Student Materials
Engine
Shop Towels

Procedure

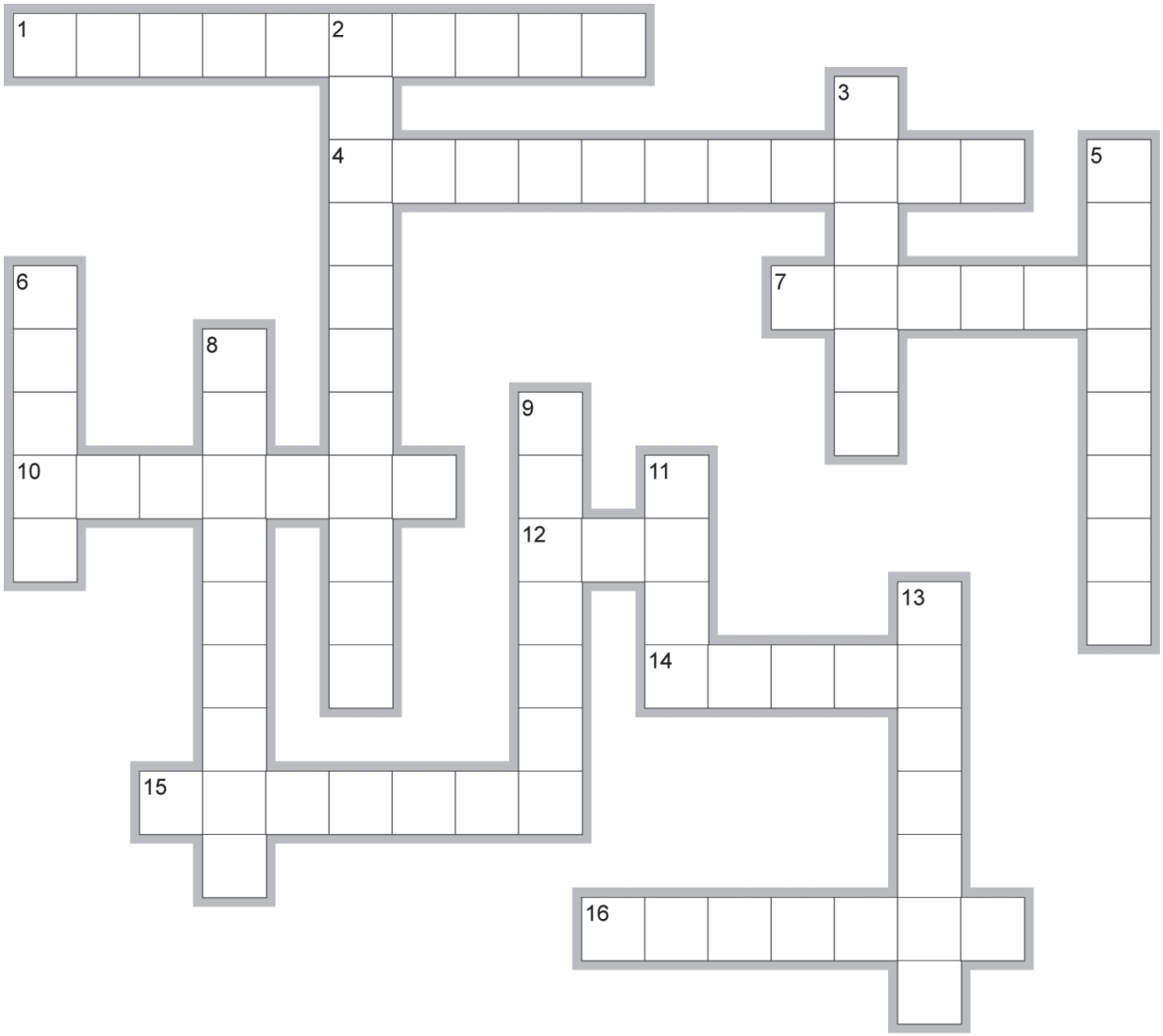
1. Make sure the vehicle or equipment is parked on level ground.
2. Make sure the vehicle or equipment has not been running for 10 minutes or more.
3. Locate the oil dipstick. If you don't know where it is, consult the owner's manual.
4. Remove the dipstick and use a rag to wipe it clean.
5. Reinsert the dipstick. Be sure to insert it completely.
6. Remove the dipstick again.
7. Look at the dipstick. The oil level should register in the "safe" area.
8. If oil is in the "add" area, add oil using the owner's manual instructions.



Name _____ Date _____ Hour _____

ACTIVITY 12.6

UNIT REVIEW CROSSWORD



EclipseCrossword.com

Across

1. Personal _____ Equipment is designed to protect from injury or illness.
4. Engine _____ prevents unwanted problems.
7. tool used to measure or mark materials
10. gases are forced out during this stroke
12. A lawnmower is an example of a _____ -cycle engine.
14. strip of wood, metal or plastic with lines
15. Screwdrivers and wrenches are considered _____ tools.
16. tool used to grip materials

Down

2. fuel and air mixture are pressed together
3. first stroke in a four cycle engine
5. _____ combustion engine is a device that burns fuel inside the engine to create power.
6. A circular saw is an example of a _____ tool.
8. converts electrical to working energy
9. tool used to shape material for use
11. A small aircraft is an example of a _____ -cycle engine.
13. tool used to move another tool or object