

Name: _____

Date: _____

Class: _____

1 Date: _____

Simple Machines

Look at the shovels below. Why are these shovel handles simple machines?



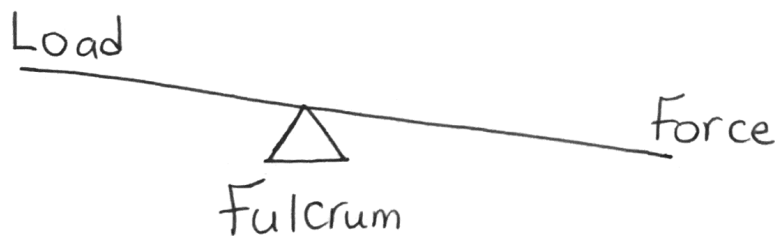
A Simple machine have few or no moving parts and makes work easier.

Shovels have no moving parts and make work easier.

2 Date: _____

The Parts of a Lever

Draw a lever. Label the fulcrum, the load, and the applied force.



3

Date:

How is the rake helping the boy do work?

By applying a force to the rake, the boy is able to move the leaves farther than he moves his hands.

4

Date:

Another Wheel-and-Axle

A doorknob is another example of a wheel-and-axle. When you turn the knob, the axle turns, too. As it does, it pulls back the catch, and the door opens. Which part of the doorknob is the wheel?

The knob

5

Date:

Make a list of simple machines in your school. Tell which type of simple machine each is.

Wheel and axle → Pencil Sharpener

Lever → Scissors, SeeSaw

Pulley → Flag pole

Inclined plane → Slide

6

Date:

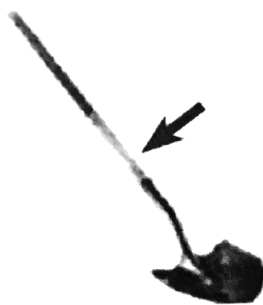
Label each simple machine.



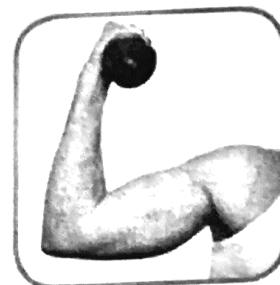
Pulley



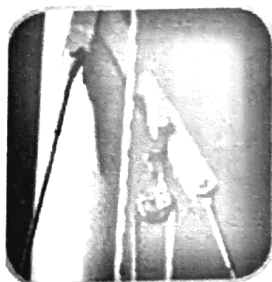
lever



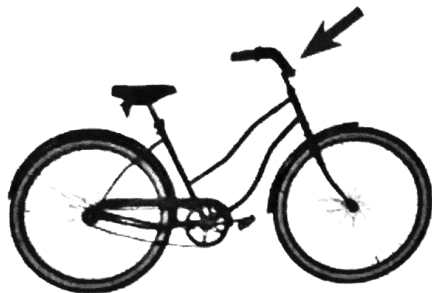
lever



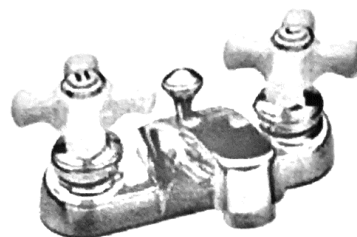
lever



Pulley



Wheel and axle



Wheel and axle

Name: _____

Date: _____

Class: _____

A) Choose the correct answer then fill in the corresponding bubble:

1) (A) (B) (C) (D)

2) (A) (B) (C) (D)

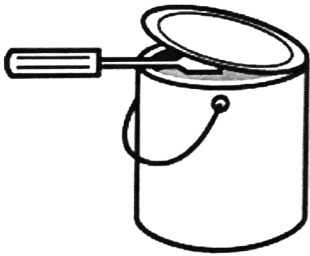
3) (A) (B) (C) (D)

4) (A) (B) (C) (D)

5) (A) (B) (C) (D)

- 1** Why would a scientist say that riding a bike is called work?
- (A) Because a bike can help people get to and from a job
- (B) Because you need to push on the pedals to move the bike
- (C) Because the bike is a simple machine that makes work easier to do
- (D) Because you change the direction of the force when you steer a bike
- 2** Which job could you do with a pulley?
- (A) Pull a wagon up a hill
- (B) Split a log into two pieces
- (C) Remove a rock from the ground
- (D) Lift a bucket of nails up to the roof

- 3 Which everyday item has a wheel-and-axle that makes work easier to do?
- a doorknob
 - a hatchet
 - scissors
 - a seesaw
- 4 Elisa and Sara are on a seesaw. Sara moves closer to the center of the seesaw. What should Elisa do to lift Sara even more easily?
- push down harder
 - bounce up and down
 - move closer to the fulcrum
 - move away from the fulcrum
- 5 Hondo used a screwdriver to open a can of paint. How is the screwdriver being used?



- as a pulley that lifts the lid up
- as a wheel-and-axle that opens the can by turning the screwdriver
- as a lever that changes the direction of the force needed to open the lid
- as a fulcrum that splits the lid from the can when pushed between them

II. Match the following sentences in column A with its meaning in column B:

Column A **Column B**

<u> </u> 1. C	A machine with few or no moving parts that you apply just one force to.	A.	work
<u> </u> 2. A	The use of a force to move an object across a distance.	B.	fulcrum
<u> </u> 3. D	A simple machine made up of a bar that pivots, or turns, on a fixed point.	C.	Simple machine
<u> </u> 4. E	A simple machine made of a wheel with a rope, cord, or chain around it.	D.	lever
<u> </u> 5. B	The balance point on a lever that supports the arms but does not move.	E.	pulley
<u> </u> 6. F	A simple machine made of a wheel and an axle that turn together.	F.	Wheel and axle

III. Would the seesaw work without the fulcrum? Why?

No, It would just be a plank.

The fulcrum lets it lift the load.

IV. Mention 3 examples of simple machines that you learned about in this lesson.

Pulley lever wheel and axle inclined plane



EGYPTIAN AMERICAN INTERNATIONAL SCHOOL
Member of EEDP
EGYPTIAN EDUCATION DEVELOPMENT PROJECTS

EGYPTIAN EDUCATION DEVELOPMENT PROJECTS
EGYPTIAN AMERICAN INTERNATIONAL SCHOOL
Elementary Science Department
SEMESTER 1 GRADE 3
Homework sheet 10.1



Name: _____

Date: _____ Class: _____

Brain Check

Lesson 1

Name _____

Word Play

1 In each box, use vocabulary terms to describe the simple machines from this lesson.

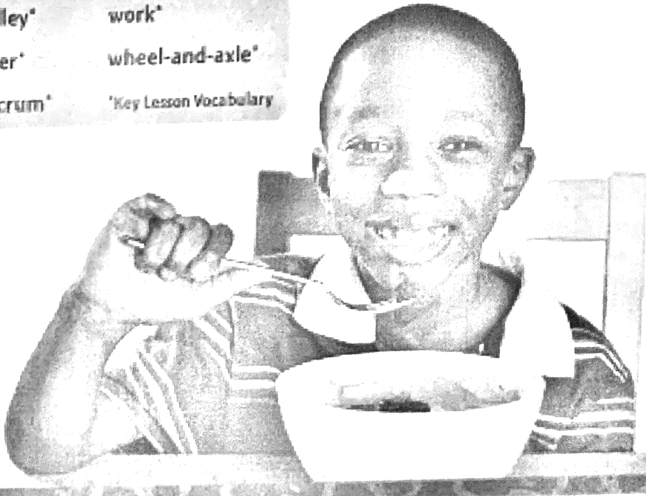
Pulley: makes work easier by changing the direction of force

lever: a bar that turns on a fulcrum.

Wheel and axle are connected together so they turn together

simple machines

pulley*	work*
lever*	wheel-and-axle*
fulcrum*	*Key Lesson Vocabulary



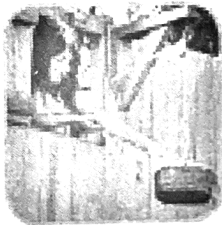
413

Apply Concepts

- 2 Make a list of simple machines in your school. Tell which type of simple machine each is.

Wheel and axle : door knob, Sharpener
Lever : See Saw, Scissors
Pulley : Flagpole
Inclined plane : Slide

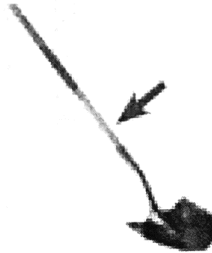
- 3 Label each simple machine.



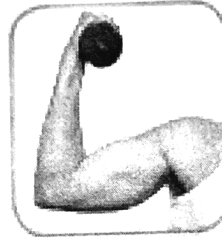
Pulley



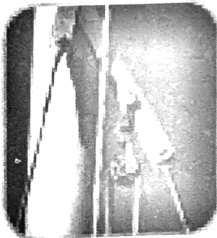
lever



lever



lever



Pulley



Wheel and axle



Wheel and axle



Take It Home!

Share what you have learned about simple machines with your family. With a family member, identify simple machines in your home. Discuss how they make work easier.