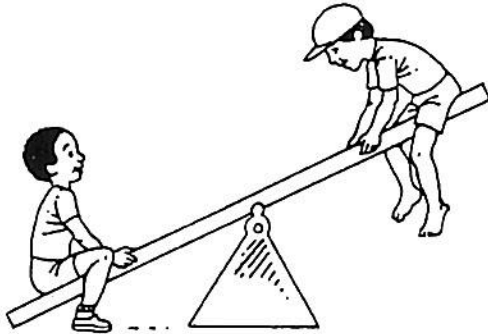
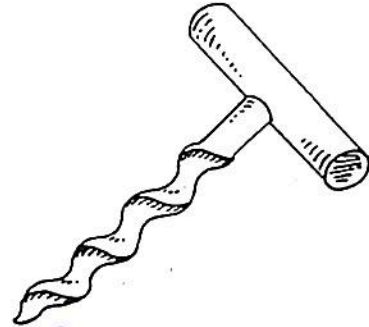


■ Identifying Simple Machines: Understanding the Main Ideas

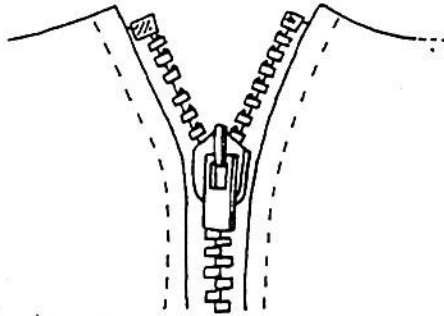
Each item pictured below is a type of simple machine. For each item, identify the simple machine.



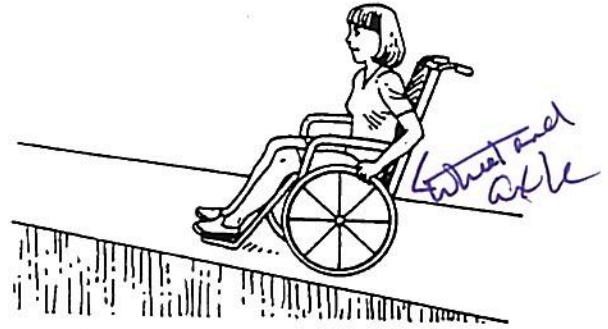
1. Lever



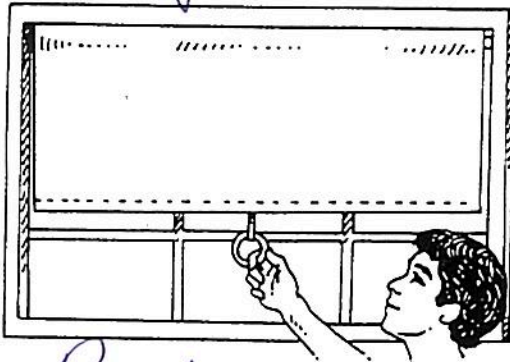
2. Screw



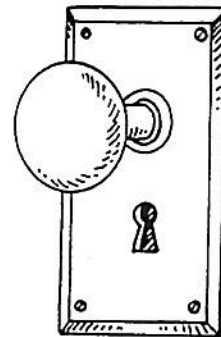
3. Wedge



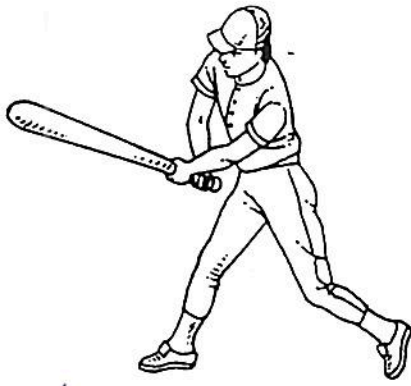
4. inclined plane



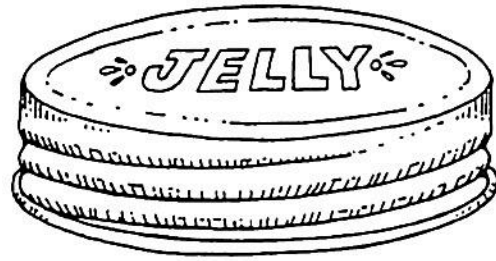
5. Pulley



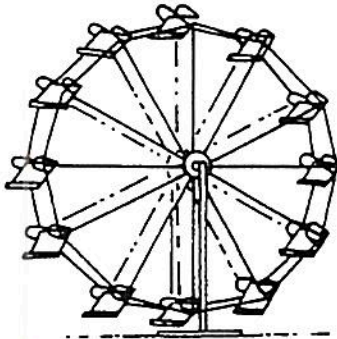
6. Wheel and Axle



7. lever



8. screw



9. Wheel and axle



10. lever

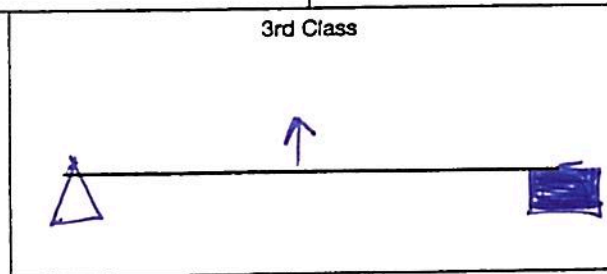
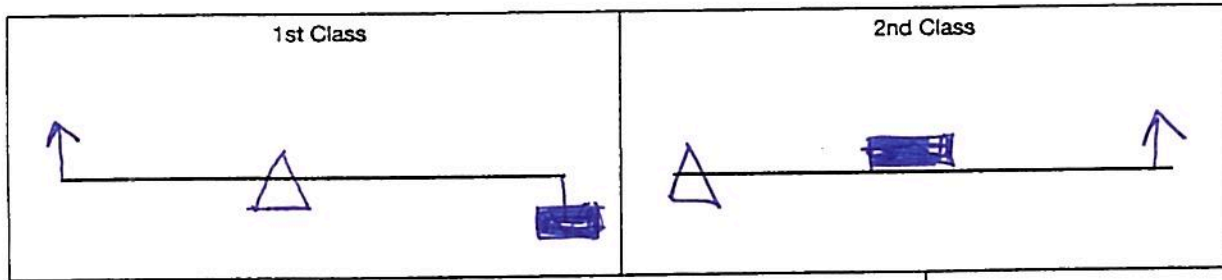
### ■ Classifying Levers

On each diagram, correctly place the effort, fulcrum, and resistance to show the kind of lever indicated. Use the following symbols:

Effort: ↓ or ↑

Fulcrum: ▲

Resistance: ■



	1	2	3
1	E	F	L
2	F	L	E
3	L	E	F

## Wheel and Axle:

- Two wheels of different sizes that rotate together

Example: bicycle, roller skates, car wheels,

## Pulley

- A grooved wheel with a rope or chain running along the groove

Example: flagpole, clothes line, shades,

## Lever

- A bar that is free to pivot, or turn about a fixed point (fulcrum).

Example: see saw, claw of a hammer,

## Types of Lever:

The 1st Class Lever - Where, the fulcrum is in between the effort and the load.

Ex: Seesaw

## The 2nd Class Lever -

Where, the load is between the fulcrum and the effort.

Ex: Wheelbarrow

## The 3rd Class Lever -

Where, the effort is between the fulcrum and the load.

Ex: Fishing rod

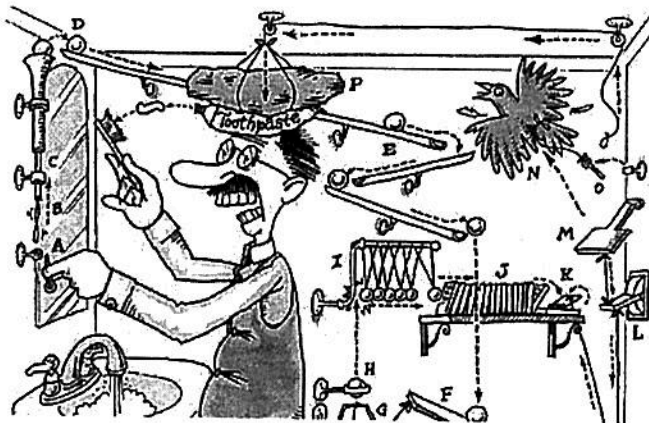
12-5-18  
notes

	<u>1</u>	<u>2</u>	<u>3</u>
<u>1</u>	L	F	E
<u>2</u>	F	L	E
<u>3</u>	F	E	L

## Compound Machines

- Combining two or more simple machines to work together.

Example: bicycle, car, pizza cutter



Name: \_\_\_\_\_

Science 7

Date: 12-4-18  
Work and Machines NOTES

Aim: I can describe the six types of simple machines.

Do Now:

---

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Notes:

Types of Simple Machines

1. Wedge
2. Wheel and Axle
3. Screw
4. Inclined Plane
5. Pulley
6. Lever

## Simple Machines



Lever



Inclined Plane



Wedge



Pulley



Wheel and Axle



Screw

Inclined Plane

- Makes it easier to move objects upward, but you have to go further horizontally.
- Flat, sloped surface
- Allows you to exert your input work over a longer distance

Example:

Slide, handicap ramp, ski slope

Wedge

- Pushes materials apart, cuts things
- An inclined plane that moves

Example:

Zipper, scissors, door stop, bow of a boat,

Screw

- Pushes materials apart, cuts things
- An inclined plane that moves
- An inclined plane wrapped around a cylindrical post.

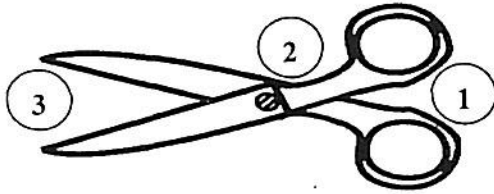
Example:

screws, spiral staircase, jar lid

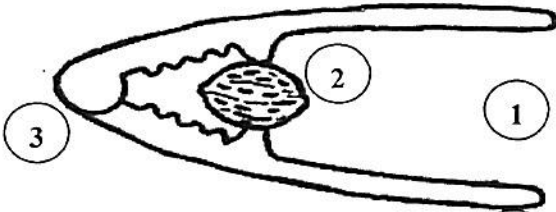
1	L	F	E
2	F	L	E
3	L	E	F

Identify the lever and label the load, effort and fulcrum.

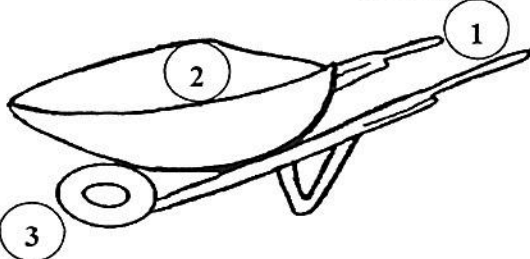
Name \_\_\_\_\_



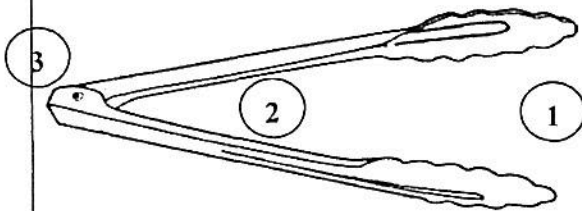
Type of Lever 1<sup>st</sup> class  
 1. Effort  
 2. Fulcrum  
 3. Load



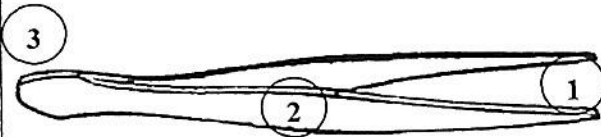
Type of Lever 2<sup>nd</sup> class  
 1. Effort  
 2. Load  
 3. Fulcrum



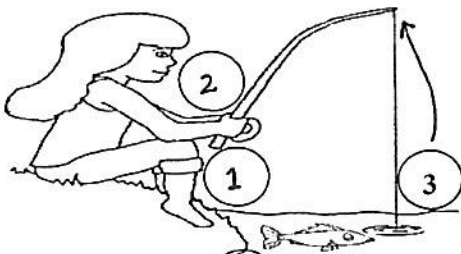
Type of Lever 2<sup>nd</sup> class  
 1. Effort  
 2. Load  
 3. Fulcrum



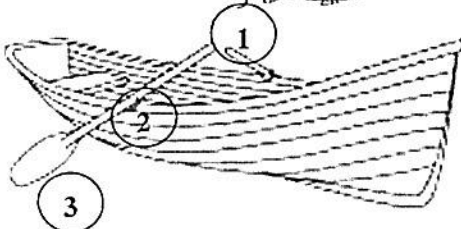
Type of Lever 3<sup>rd</sup> class  
 1. Load  
 2. Effort  
 3. Fulcrum



Type of Lever 3<sup>rd</sup> class  
 1. Load  
 2. Effort  
 3. Fulcrum



Type of Lever 3<sup>rd</sup> class  
 1. Fulcrum  
 2. Effort  
 3. Load



Type of Lever 3<sup>rd</sup> class  
 1. Fulcrum  
 2. Effort  
 3. Load

