

## Unit 1.1 What is a machine?

### 1. Match.

Work

Simple machines

Complex machines

1) have just one or two parts.

2) means the use of a force to move an object across a distance.

3) are made up of simple machines that work together.

## 2. Fill in the gaps.

pulley

wheel and axle

inclined plane

wedge

lever

screw

- 1) \_\_\_\_\_ is made of a round object, a wheel, attached to a post called an axle.
- 2) \_\_\_\_\_ is made from two slanted sides that end in a sharp edge.
- 3) \_\_\_\_\_ is a stiff bar that rests on a support.
- 4) \_\_\_\_\_, or a ramp, is a slanted surface.
- 5) \_\_\_\_\_ can make work easier in two ways. It can decrease the amount of force needed to move an object. It can also change the direction that the force is applied.
- 6) \_\_\_\_\_ is an inclined plane wrapped around a center post.

3. Draw a line from each simple machine to its correct part on the bicycle.

- A) lever
- B) pulley
- C) wheel and axle



4. Make a list of three complex machines.

1) \_\_\_\_\_ 2) \_\_\_\_\_

## Unit 1.2 What is the design process?

### 5. Fill in the gaps.

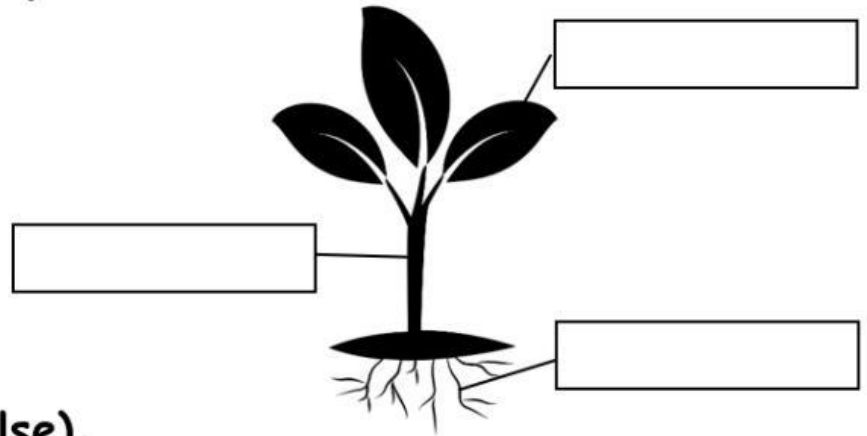
research	design process	results	
prototype	evaluate	redesign	engineer

- 1) The \_\_\_\_\_ is a step-by-step method used to solve a problem.
- 2) An \_\_\_\_\_ is any person who designs new technologies.
- 3) To \_\_\_\_\_ means to look for facts about something.
- 4) A \_\_\_\_\_ is the first working product that uses a design.
- 5) \_\_\_\_\_ means to find out how well something works.
- 6) To \_\_\_\_\_ means to make a prototype better.
- 7) Engineers communicate \_\_\_\_\_ about their tests to people working with them.

## Unit 2.1 How do plants use stems and roots to grow?

### 6. Label the parts of the plant.

- Leaf
- Roots
- Stem



### 7. Circle T(True) or F(False).

- 1) Pumpkin stems grow under the ground.
- 2) Stems support the roots of plants.
- 3) Roots move water to the leaves.

T    F

T    F

T    F

8. Write the names of the two types of roots.

1) \_\_\_\_\_ 2) \_\_\_\_\_

9. Fill in the gaps:

leaves

nutrient

roots and stems

ground

1) Plants need \_\_\_\_\_ to take in and move materials plants need to live and grow.

2) The root system of a plant is often below the \_\_\_\_\_.

3) Roots store food made by the plant's \_\_\_\_\_.

4) A \_\_\_\_\_ is any material needed by living things for energy, growth, and repair.

## 10. Match the columns.

- a) Cactuses and potatoes
- b) Cactus stems
- c) Potatoes
- d) Potato's "eyes"

become new plants.  
grow below the ground.  
have different types of stems.  
grow above the ground.



11. Fill in the gaps.

reproduce	pollen	pollinate	
germinate	nutrient	life cycle	sugar

1) Flowers have different parts. One part makes \_\_\_\_\_. It is a fine powder produced by flowers and cones.

2) Animals or wind can \_\_\_\_\_, or carry pollen to, another flower.

3) When plants \_\_\_\_\_, they make more of the same kind.

4) To \_\_\_\_\_ means to begin to grow.

5) The leaves use sunlight to make \_\_\_\_\_. The plant uses it for food.

6) The stages through which a living thing passes during its life are called a \_\_\_\_\_.

12. Conifer plants do not grow flowers. What do they grow to make seeds?

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