

Green Roof

Name: _____

4th Grade- Design Task Assessment

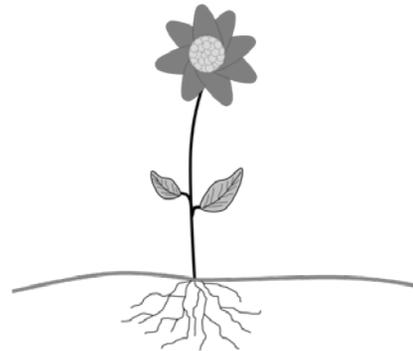
Date: _____

Directions: For each of the questions below, choose the BEST answer.

- 1) Plants respond to changes in the environment. This response is called:
- A. erosion
 - B. adaptation
 - C. stimulus
 - D. modeling
- 2) A plant's ability to keep soil from being washed away is an example of the plant's ability to stop _____.
- A. tropism
 - B. gravity
 - C. stimulus
 - D. erosion

- 3) Which part of the plant takes in carbon dioxide?

- A. leaves
- B. roots
- C. stem
- D. flower



- 4) Which part of the plant takes in water and nutrients for the plant to grow?

- A. leaves
- B. roots
- C. stem
- D. flower

5) Plants make their own food in a process called:

- A. chlorophyll
- B. pollination
- C. photosynthesis
- D. germination

6) When a plant makes food, which gas does it give off?

- A. oxygen
- B. carbon dioxide
- C. nitrogen
- D. helium

7) A small plant is shaded by a large tree. Which answer **best** describes why the small plant bends toward the sunlight?

- A. sourcing
- B. tropism
- C. accommodate
- D. repose



8) If a plant receives very little water, the plant will respond by growing its roots toward a water source. The water acts as a plant _____.

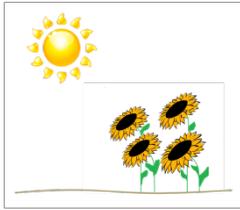
- A. erosion
- B. tropism
- C. adaptation
- D. stimulus

9) Sarah plants her flowers in a shallow pot. Jake plants his flowers in a deep pot. What effects will the depth of soil have on the two flowers?

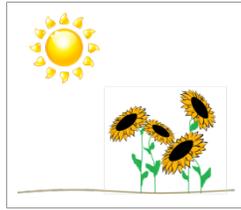
- A. Jake's flowers will have longer roots.
- B. Sarah's flowers will not get as much sun.
- C. Jake's flowers will be more colorful.
- D. Sarah's flowers will grow larger.



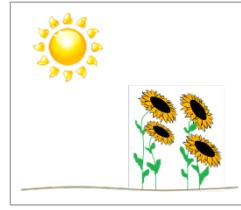
10) Tommy drives by a field of sunflowers. Knowing that the sun is a stimulus, which picture **best** represents what Tommy sees?



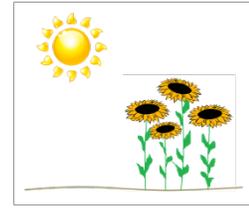
A.



B.



C.



D.

11) Maria is an engineer for a company called Green Roof Basics. Maria has been hired by the Tippecanoe County Library to design a green roof for the library guests to enjoy.

Who is the client?

- A. Maria
 - B. Green Roof Basics
 - C. Tippecanoe County Library
 - D. The library guests
- 12) Sam and Jane have built a prototype for their new green roof. What should be the next step in the design process?

- A. Write their problem statement.
 - B. Brainstorm for other designs.
 - C. Test their prototype.
 - D. Present their design and prototype.
- 13) Tom has decided he needs to build a greenhouse in his back yard. Tom's yard is not very large. Tom can only make his greenhouse four feet wide. This limitation is a _____.
- A. design
 - B. client
 - C. prototype
 - D. constraint