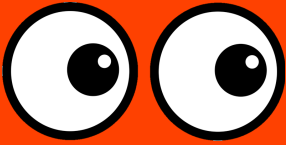


DEFENSE *against the* BARK ARTS

POST-LESSON
MATERIAL



Watch the video to learn more about plant defenses and then answer the comprehension questions below.



Comprehension Questions

1

What is lignin and what part of the tree does it protect?

2

What is the difference between a physical/mechanical defense and a chemical defense?

3

Name and describe 3 specific plant defenses mentioned in the video.

4

True or false: plant immune systems are unlike animals' because only certain cells can detect and defend against invaders (*circle one*).

TRUE

FALSE

5

True or false: many spices produced by plants are chemical defenses that protect them from microbes and insects (*circle one*).

TRUE

FALSE

6

True or false: some plants form "alliances" with other species like parasitic wasps by releasing chemicals into the air (*circle one*).

TRUE

FALSE

DESIGN CHALLENGE

S.O.S.! A tree is in trouble and needs YOUR help!

Can you help the made-up "lamshaw tree" by picking 2 defenses that would protect it from the threats described?

The lamshaw tree in Northern California has delicious green leaves that grow on branches that hang low to the ground. Grazing deer and hungry caterpillars like to eat lamshaw leaves for their moisture and nutrients. The lamshaw also grows large fruits that look like grapefruits but taste like strawberry shortcake! Humans love to eat these fruits because they get all the flavor of cake without the calories and this makes them feel less guilty when they tell their doctors about their diet. Often, humans will take every fruit off of the tree, leaving the tree without any seeds to reproduce.

Lamshaw Tree Defenses

Defense #1

Describe the first defense mechanism that you chose and why you picked it.

What type of defense is this? (*circle one*)

PHYSICAL

CHEMICAL

Defense #2

Describe the second defense mechanism that you chose and why you picked it.

What type of defense is this? (*circle one*)

PHYSICAL

CHEMICAL

Imagine what the lamshaw tree could look like and draw it below. You may choose to label its defenses, include the animals and insects that threaten it, or add color. Be creative!

