Inherited Traits and Variation

Grade 3 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. Two tomato plants grew from seeds of the same parent. Which difference is most likely caused by the environment?

   one has round fruit and one has pear-shaped fruit

   one has smooth leaves and one has fuzzy leaves

   one has red fruit and one has yellow fruit

   one has more fruit after getting fertilizer

2. Which statement about traits is true?

   the environment cannot change any trait

   traits are either learned or inherited, never both

   every trait comes from the environment

   some inherited traits can still be changed by the environment

3. Seeds from one tall corn plant are planted in poor, dry soil. The new plants are short. What is the best explanation?

   corn height is never inherited

   the seeds learned to grow short

   they inherited tallness, but poor soil limited growth

   they inherited shortness from the tall plant

4. A farmer wants calves that make more milk. Which plan uses inherited traits?

   give all the calves the same blanket

   keep the calves in a bigger field

   breed the cows that make the most milk

   teach the calves to come when called

5. Hydrangeas grown from cuttings of one plant have blue flowers in one garden and pink in another. What does this show about hydrangea flower color?

   it changes with the plant's age

   it depends only on the parent plant

   the soil can change it

   it is a learned behavior

6. Which observation is evidence that a trait is inherited?

a foal grows stronger from running

a foal has the same white face marking as its mother

a foal gets a scar from a fence

a foal learns to follow its mother

7. Ten kittens from the same two parents are measured. Their tails are 20 to 26 centimeters long. What does the range show?

tail length is learned by playing

all the kittens inherited the same tail length

variation in an inherited trait

the kittens have ten different mothers

8. Two goldfish from the same parents live in different tanks. The fish in the larger tank grows bigger. Both fish are orange. Which trait was shaped by the environment?

body size number of fins orange color fin shape

9. The same kind of sunflower seeds are planted in sun and in shade. The sunny plants grow taller. Which trait was most affected by the environment?

leaf shape plant height petal color seed shape

10. Twin puppies have the same fur color. One is fed more, exercises less, and becomes heavier. Which statement is true?

both traits are shaped by environment

weight is inherited; fur color is shaped by environment

both traits are inherited

fur color is inherited; weight is shaped by environment

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Answer Key - Grade 3 Science Worksheet - Challenge Me

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