Inherited Traits and Variation

Grade 3 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. 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 depends only on the parent plant

   it is a learned behavior

   the soil can change it

   it changes with the plant's age

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

   a foal learns to follow its mother

   a foal gets a scar from a fence

   a foal grows stronger from running

   a foal has the same white face marking as its mother

3. 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

   the kittens have ten different mothers

   variation in an inherited trait

4. 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?

   fin shape orange color number of fins body size

5. 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?

   petal color leaf shape plant height seed shape

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

   weight is inherited; fur color is shaped by environment

   both traits are shaped by environment

   both traits are inherited

   fur color is inherited; weight is shaped by environment

7. Pea plants from the same parents are tall and short. A student thinks the short ones got less water. Which plan would test this idea?

- look at the parent plant's flowers
- give each plant a different soil and water
- count the purple flowers on each plant
- grow more seeds from the same plant with equal water and compare

8. A student says, 'A dog that learns tricks will have puppies that know tricks.' Which evidence shows this is wrong?

- puppies of a trained dog still have to be taught
- trained dogs are often larger
- puppies of a trained dog have the same fur
- puppies often look like their father

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

- one has red fruit and one has yellow fruit
- one has more fruit after getting fertilizer
- one has round fruit and one has pear-shaped fruit
- one has smooth leaves and one has fuzzy leaves

10. Which statement about traits is true?

- the environment cannot change any trait
- some inherited traits can still be changed by the environment
- every trait comes from the environment
- traits are either learned or inherited, never both

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Answer Key - Grade 3 Science Worksheet - Challenge Me

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