Inherited Traits and Variation

Grade 3 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

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

   the seeds learned to grow short

   they inherited tallness, but poor soil limited growth

   they inherited shortness from the tall plant

   corn height is never inherited

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

   give all the calves the same blanket

   teach the calves to come when called

   breed the cows that make the most milk

   keep the calves in a bigger field

3. 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

   the soil can change it

   it is a learned behavior

   it changes with the plant's age

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

   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

   a foal learns to follow its mother

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

   variation in an inherited trait

   all the kittens inherited the same tail length

   the kittens have ten different mothers

   tail length is learned by playing

6. 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?

number of fins fin shape body size orange color

7. 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 seed shape leaf shape plant height

8. 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

fur color is inherited; weight is shaped by environment

both traits are inherited

both traits are shaped by environment

9. 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?

count the purple flowers on each plant

grow more seeds from the same plant with equal water and compare

give each plant a different soil and water

look at the parent plant's flowers

10. 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

puppies of a trained dog have the same fur

puppies often look like their father

trained dogs are often larger

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Answer Key - Grade 3 Science Worksheet - Challenge Me

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