Inherited Traits and Variation

Grade 3 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. 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

2. 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 orange color body size fin shape

3. 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 plant height leaf shape

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

   both traits are inherited

   fur color is inherited; weight is shaped by environment

   both traits are shaped by environment

   weight is inherited; fur color is shaped by environment

5. 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?

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

   look at the parent plant's flowers

   give each plant a different soil and water

   count the purple flowers on each plant

6. 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

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

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

8. Which statement about traits is true?

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

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

- they inherited tallness, but poor soil limited growth
- they inherited shortness from the tall plant
- corn height is never inherited
- the seeds learned to grow short

10. 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

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Answer Key - Grade 3 Science Worksheet - Challenge Me

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