Inherited Traits and Variation

Grade 3 Science Worksheet

Name _____ Date _____

Circle the answer.

1. Why might two oak seedlings from the same tree have slightly different leaf shapes?
   - the gardener chose the leaf shapes
   - one seedling learned a new leaf shape
   - one seedling copied a maple tree
   - offspring vary even with the same parent

2. Which trait could a corn plant pass to its seeds?
   - a stalk tied to a fence
   - leaves dried by a hot week
   - a stalk bent by a storm
   - the color of its kernels

3. A cat has a short tail because it was hurt as a kitten. Will her kittens have short tails?
   - yes, kittens copy their mother's tail
   - yes, every change is passed on
   - no, an injury is not inherited
   - no, kittens are born with no tails

4. Which trait of a sunflower comes from its parent plants and not from its surroundings?
   - the shape of its seeds
   - how tall it grows in shade
   - leaves that droop without water
   - a stem bent by the wind

5. A dog with a trimmed coat has puppies. Will the puppies be born with trimmed coats?
   - yes, all traits are passed to offspring
   - no, a haircut is not passed to offspring
   - no, because puppies have no fur
   - yes, because the puppies saw the haircut

6. Which shows variation among pea plants grown from seeds of the same parent?
   - all of them grow from seeds
   - all of them have green leaves
   - all of them grow pods
   - some have purple flowers and some have white

7. Why do sunflower seedlings look like the parent plant?

- they inherit traits from the parent plant
- they learn the shape from nearby plants
- they copy the flowers they see
- they get the shape from the soil

8. Which pair shows an inherited trait and then a learned behavior?

- a zebra's stripes; a dog fetching a ball
- a zebra's stripes; a cat's whiskers
- a cat's whiskers; a tiger's stripes
- a dog fetching a ball; a horse jumping on command

9. Puppies in a litter have different ear shapes. Their parents also have different ear shapes. What is the best explanation?

- ear shape changes with exercise
- each puppy learned its ear shape
- ear shape comes from the food they eat
- each puppy inherited a mix of traits from both parents

10. A girl has curly hair like her mother and brown eyes like her father. What does this show?

- offspring can inherit traits from both parents
- offspring look exactly like one parent
- hair and eye color are learned
- offspring inherit traits from one parent only

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Answer Key - Grade 3 Science Worksheet

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