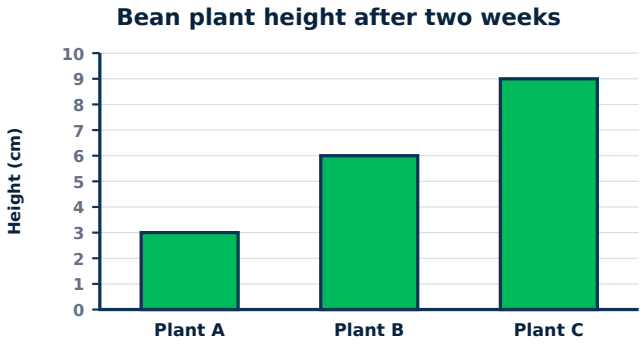
Environment and Traits

Grade 3 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. Plant A got 1 hour of sun a day, plant B got 3 hours, and plant C got 6 hours. Use the graph. Plant D gets 4 hours. About how tall will it grow?



about 10 cm about 2 cm about 7 cm about 12 cm

2. Why do scientists grow two plants of the same kind in the same soil and light, changing only the water?
   - so a growth difference comes from the water
   - so the plants can use different pots
   - so the plants inherit different traits
   - so they can test two things at once

3. A gardener moves a pink hydrangea into soil like the soil where blue hydrangeas grow. What will most likely happen?
   - its leaves will turn pink
   - its new flowers will stay pink
   - its new flowers will turn blue
   - its flowers will turn white

4. Pieces cut from one plant were planted low on a mountain and high on the mountain. The low ones grew tall and the high ones stayed short. Why is this good evidence that the environment affects height?
   - the pieces were planted in the same spot
   - the pieces came from different parent plants
   - all the pieces came from one plant, so only the place differed
   - plants grow taller near mountain tops

5. Which trait is most likely affected by both inheritance and the environment?
   - the number of legs on a beetle
   - the color of a kitten's eyes
   - the stripes on a zebra
   - how tall a sunflower grows

6. Two groups of the same kind of bean plant were grown. Group 1 had 6 hours of light; group 2 had 2 hours. Group 1 grew taller. What should the student do to trust this result?
   use different kinds of seeds
   repeat the test with more plants
   give group 2 more water next time
   stop after one test

7. A student grows two bean plants from the same kind of seed, in the same pots, with the same water. One sits in a sunny window and one sits in a closet. What is being tested?
   whether the pots affect how the plants grow
   whether water affects how the plants grow
   whether the kind of seed affects growth
   whether sunlight affects how the plants grow

8. A student grows two seedlings in the same light and soil, but waters one twice as often. What is being tested?
   whether the amount of water affects growth
   whether the amount of light affects growth
   whether the seedlings inherited different traits
   whether the kind of soil affects growth

9. A student wants to test whether fertilizer makes tomato plants bigger. Which plan is a fair test?
   different kinds of seeds, fertilizer for both
   fertilizer and extra water for the same plant
   same seeds, light and water; fertilizer for only one
   same seeds, but one in sun and one in shade

10. Plant 1 is in a warm room and plant 2 is in a cold room. Plant 1 also gets more water. Why is this not a fair test?
   only one condition changed
   the rooms have the same light
   two conditions changed, so the cause is unclear
   the plants are the same kind

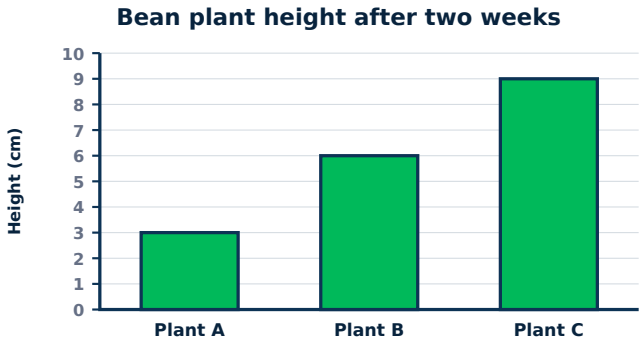
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Answer Key - Grade 3 Science Worksheet - Challenge Me

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