Environment and Traits

Grade 3 Science Worksheet - Challenge Me

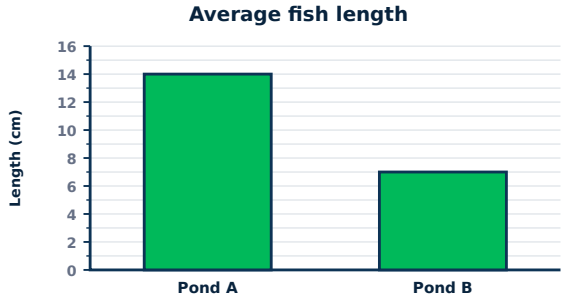
Name _____ Date _____

Circle the answer.

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

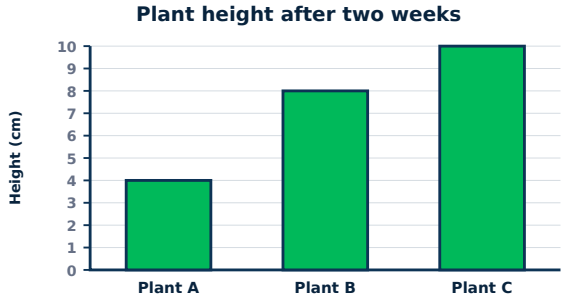
2. Plant 1 is in a warm room and plant 2 is in a cold room. Plant 1 also gets more water. Why is this not a fair test?
   - two conditions changed, so the cause is unclear
   - the rooms have the same light
   - the plants are the same kind
   - only one condition changed

3. Pond A has 10 fish and pond B has 100 fish. The ponds are the same size. Use the graph. How much longer are the fish in pond A?



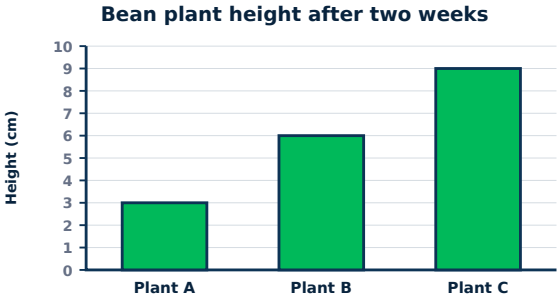
7 cm 21 cm 2 cm 14 cm

4. Plant A was watered 1 time a week, plant B 3 times, and plant C 5 times. Use the graph. What pattern does it show?



   - more water gave shorter plants
   - plant B grew the most
   - more water gave taller plants in this test
   - water made no difference

5. 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 2 cm about 10 cm about 7 cm about 12 cm

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

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

8. 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?
all the pieces came from one plant, so only the place differed
plants grow taller near mountain tops
the pieces were planted in the same spot
the pieces came from different parent plants

9. 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

10. 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
give group 2 more water next time
stop after one test
repeat the test with more plants

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Answer Key - Grade 3 Science Worksheet - Challenge Me

Circle the answer.

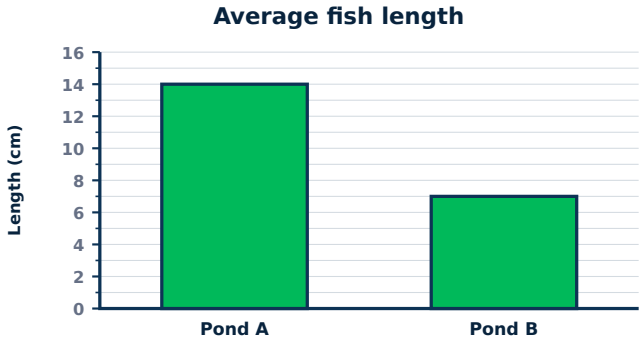
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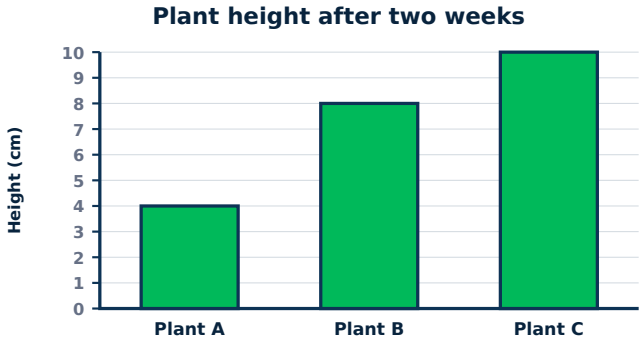
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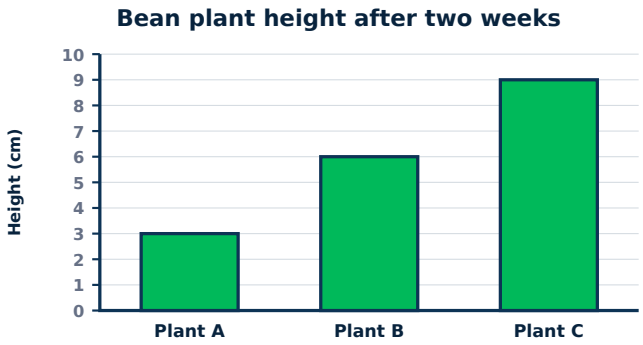
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