Forces and Motion

Grade 3 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

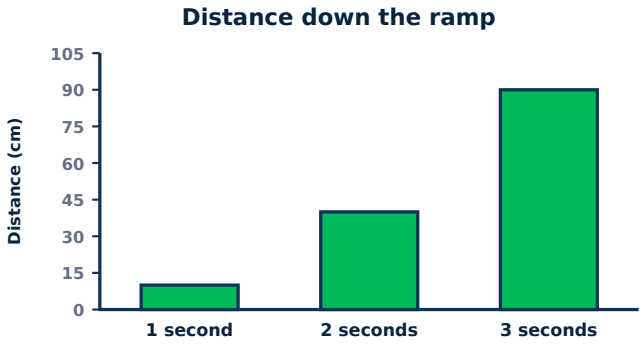
1. A hockey puck slides a long way on ice but still slows down a little. Why?
   there is a small amount of friction
   ice has no friction at all
   gravity pushes it backward
   the puck runs out of force

2. Two equal pushes act on a box from opposite sides. Then one push stops. What happens?
   the box moves the way the other push points
   the box moves toward the push that stopped
   the box stays still
   the box moves straight up

3. A box has 20 units of force pushing right and 12 units of friction pushing left. Which way does it move, and how much extra force is there?
   left, with 8 extra units right, with 32 extra units right, with 8 extra units it stays still

4. A cart is still while two students push from opposite sides. Then one pushes harder. What happens?
   the cart moves sideways
   the cart moves away from the harder push
   the cart moves toward the harder push
   the cart stays still

5. A ball rolls down a ramp. Use the graph of how far it has gone after each second. What does the pattern show?



   the ball speeds up as it rolls down
   the ball moves at the same speed
   the ball stops after 2 seconds
   the ball slows down

6. A sled slides down a snowy hill onto flat ground. On which surface would it stop soonest?
   - it would stop the same on each
   - smooth ice
   - a patch of sand
   - packed snow

7. A book sits on a table. Gravity pulls it down. Why doesn't it fall?
   - the book has no weight on a table
   - air holds the book up
   - gravity stops working on tables
   - the table pushes up with an equal force

8. Team A and Team B each pull a rope with 60 units of force. A third child joins Team A and adds 10 units. What happens?
   - the rope stays still
   - the rope moves toward Team B
   - the rope moves toward Team A
   - the forces stay balanced

9. A toy car rolls 50 cm on carpet and 200 cm on tile with the same push. What is the best explanation?
   - carpet has more friction than tile
   - the car is heavier on carpet
   - tile has more friction than carpet
   - gravity is stronger on carpet

10. A student pushes a box with 10 units of force, and friction pushes back with 10 units. She wants the box to move. What should she do?
    - push with less than 10 units
    - push with more than 10 units
    - push with exactly 10 units
    - push from both sides at once

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Answer Key - Grade 3 Science Worksheet - Challenge Me

Circle the answer.

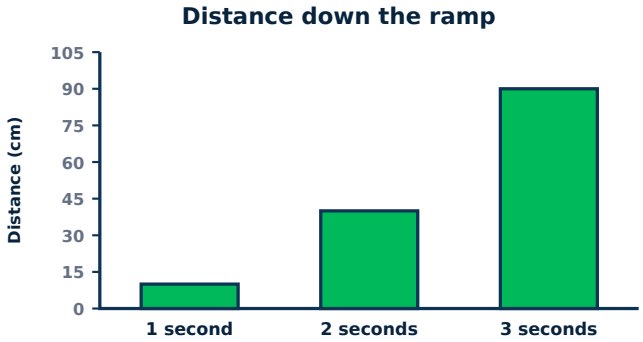
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