Magnets and Engineering Design

Grade 3 Science Worksheet

Name _____ Date _____

Circle the answer.

1. A magnet stays on a fridge door even though gravity pulls it down. Why does it not fall?
   the fridge is cold
   the fridge door is sticky
   gravity does not work on magnets
   its pull on the steel door holds it up

2. You rub a plastic comb on your hair. Now it can pick up small bits of paper. Which force is acting?
   gravity magnetic force a push from the paper electric force from static

3. A magnet pulls a steel can but not an aluminum can. Which design could sort cans for recycling?
   a magnet that lifts the aluminum cans out
   a net that catches cans by color
   a magnet that lifts the steel cans out
   a sieve with holes as big as cans

4. Two magnets pull together hard when they are 1 cm apart. What happens when they are 5 cm apart?
   they pull together more weakly
   they push apart
   they pull together more strongly
   they pull with the same force

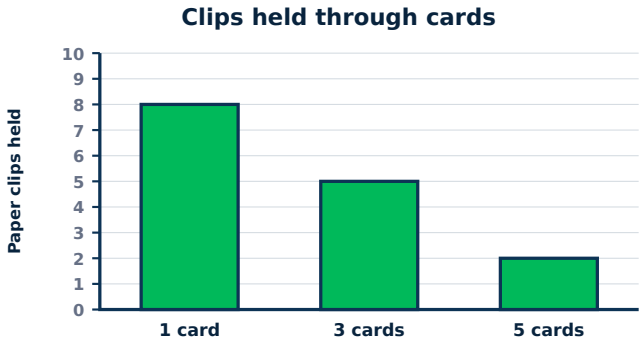
5. A student wants a magnet latch to keep a box lid shut. Which magnet ends should meet when the lid closes?
   two north poles
   any two ends, since it does not matter
   a north pole and a south pole
   two south poles

6. A paper clip hangs from a string. A magnet comes close without touching it, and the clip moves toward the magnet. What does this show?
   paper clips are magnets
   the string pulls the clip
   magnets must touch to pull
   magnets can pull without touching

7. A balloon rubbed on a sweater picks up tiny bits of paper. A second balloon rubbed the same way is held near the first. What happens?
   the paper bits fall off
   nothing happens
   the two balloons push apart
   the two balloons pull together

8. Which design uses magnets to solve a problem?
   a paper bag for trash
   a sponge mop for spills
   a magnetic sweeper that picks up dropped nails
   a plastic rake for leaves

9. A student counts how many paper clips a magnet holds through cardboard cards. Use the graph. What pattern does it show?



   more cards between means fewer clips
   the cards make no difference
   more cards means more clips
   5 cards held the most clips

10. A magnet pulls a steel screw, but not a brass key. What can you conclude?
   not all metals are pulled by magnets
   all metals are pulled by magnets
   brass is a kind of steel
   magnets pull only screws

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Answer Key - Grade 3 Science Worksheet

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   - a push from the paper
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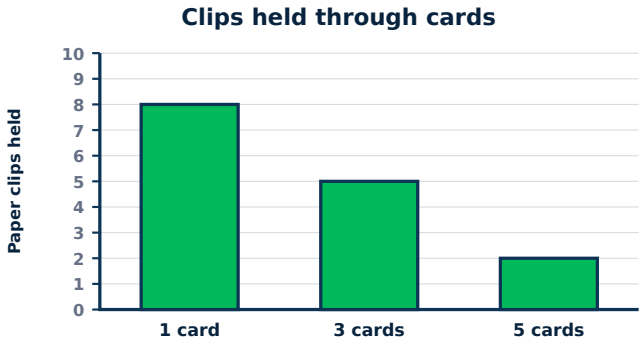
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