Magnets and Engineering Design

Grade 3 Science Worksheet

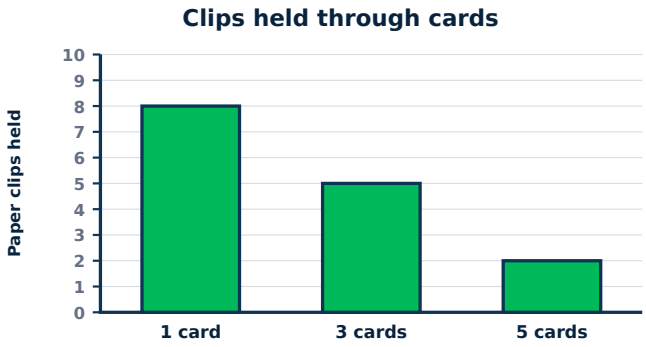
Name _____ Date _____

Circle the answer.

1. 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 two balloons push apart
   nothing happens
   the two balloons pull together
   the paper bits fall off

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

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



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

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

5. Two ring magnets on a pencil float one above the other. Why?
   the pencil is a magnet
   air holds the top magnet up
   their facing poles are the same, so they push apart
   their facing poles are opposite, so they pull

6. Which object is attracted to a magnet?
   a gold ring a copper wire a glass marble a steel screw

7. A toy train uses magnets to join its cars. One car keeps pushing away from the next. What is the best fix?
   add a second magnet with the same pole facing
   push the cars together harder
   turn that car around so opposite poles meet
   move the cars farther apart

8. 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

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

10. 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 sieve with holes as big as cans
   a magnet that lifts the steel cans out
   a net that catches cans by color

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Answer Key - Grade 3 Science Worksheet

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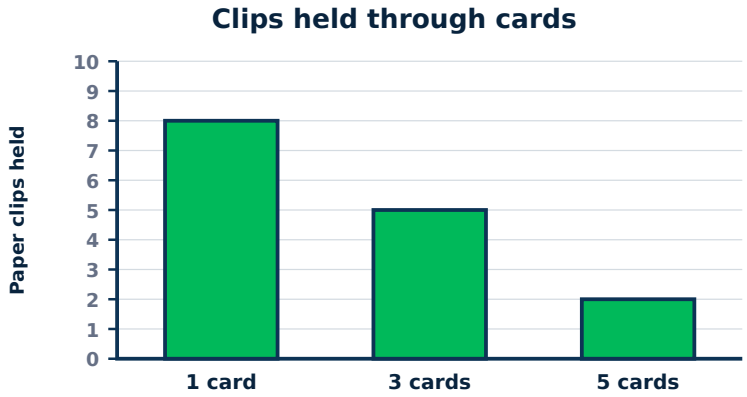
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