Magnets and Engineering Design

Grade 3 Science Worksheet

Name _____ Date _____

Circle the answer.

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

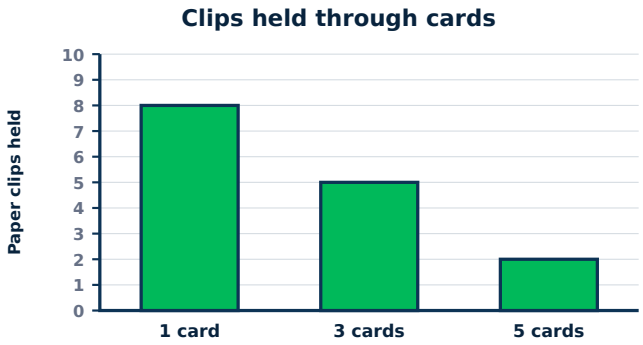
2. A student wants a magnet latch to keep a box lid shut. Which magnet ends should meet when the lid closes?
   - two south poles
   - two north poles
   - a north pole and a south pole
   - any two ends, since it does not matter

3. 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?
   - magnets can pull without touching
   - the string pulls the clip
   - magnets must touch to pull
   - paper clips are magnets

4. 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

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

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



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

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

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

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

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

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Answer Key - Grade 3 Science Worksheet

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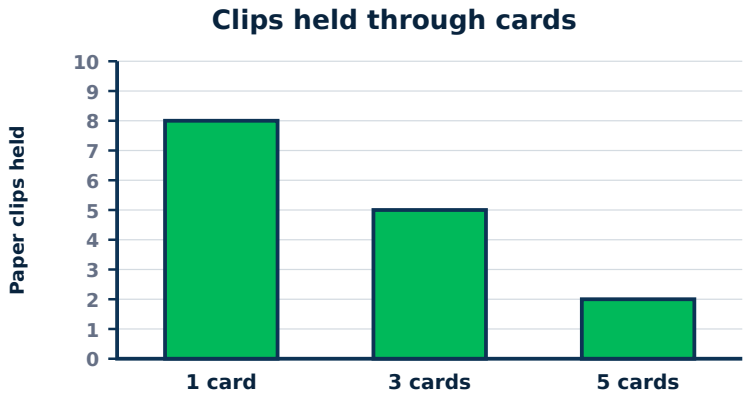
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