Magnets and Engineering Design

Grade 3 Science Worksheet

Name _____ Date _____

Circle the answer.

1. 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

   brass is a kind of steel

   not all metals are pulled by magnets

2. Two ring magnets on a pencil float one above the other. Why?

   the pencil is a magnet

   their facing poles are opposite, so they pull

   air holds the top magnet up

   their facing poles are the same, so they push apart

3. Which object is attracted to a magnet?

   a copper wire a steel screw a glass marble a gold ring

4. A toy train uses magnets to join its cars. One car keeps pushing away from the next. What is the best fix?

   move the cars farther apart

   push the cars together harder

   turn that car around so opposite poles meet

   add a second magnet with the same pole facing

5. A magnet stays on a fridge door even though gravity pulls it down. Why does it not fall?

   gravity does not work on magnets

   its pull on the steel door holds it up

   the fridge door is sticky

   the fridge is cold

6. You rub a plastic comb on your hair. Now it can pick up small bits of paper. Which force is acting?

   a push from the paper magnetic force electric force from static gravity

7. A magnet pulls a steel can but not an aluminum can. Which design could sort cans for recycling?

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

8. 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 push apart
- they pull together more strongly
- they pull together more weakly

9. A student wants a magnet latch to keep a box lid shut. Which magnet ends should meet when the lid closes?

- any two ends, since it does not matter
- two north poles
- a north pole and a south pole
- two south poles

10. 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
- magnets must touch to pull
- magnets can pull without touching
- the string pulls the clip

Scan to get this marked free. No screen time for your child.
Print it · do it in pencil · scan it · PencilGo picks the next sheet.

Magnets and Engineering Design

Answer Key - Grade 3 Science Worksheet

Circle the answer.

1. 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

   brass is a kind of steel

   not all metals are pulled by magnets

2. Two ring magnets on a pencil float one above the other. Why?

   the pencil is a magnet

   their facing poles are opposite, so they pull

   air holds the top magnet up

   their facing poles are the same, so they push apart

3. Which object is attracted to a magnet?

   a copper wire a steel screw a glass marble a gold ring

4. A toy train uses magnets to join its cars. One car keeps pushing away from the next. What is the best fix?

   move the cars farther apart

   push the cars together harder

   turn that car around so opposite poles meet

   add a second magnet with the same pole facing

5. A magnet stays on a fridge door even though gravity pulls it down. Why does it not fall?

   gravity does not work on magnets

   its pull on the steel door holds it up

   the fridge door is sticky

   the fridge is cold

6. You rub a plastic comb on your hair. Now it can pick up small bits of paper. Which force is acting?

a push from the paper | magnetic force | electric force from static | gravity

7. A magnet pulls a steel can but not an aluminum can. Which design could sort cans for recycling?

a magnet that lifts the steel cans out

a net that catches cans by color

a magnet that lifts the aluminum cans out

a sieve with holes as big as cans

8. 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 push apart

they pull together more strongly

they pull together more weakly

9. A student wants a magnet latch to keep a box lid shut. Which magnet ends should meet when the lid closes?

any two ends, since it does not matter

two north poles

a north pole and a south pole

two south poles

10. 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

magnets must touch to pull

magnets can pull without touching

the string pulls the clip