

# Magnets Grade 4 Lab Practical

## Teacher's Answer Key

**This is your chance to see how well your students have picked up on important key concepts, and if there are any holes. Your students also will be working on their homework assignment as you do this test individually with the students.**

### Materials:

- Needle
- Foam
- 2 different kinds of magnets (round or square, N-S pole locations different, etc.)
- Cup of water
- Paperclip
- Penny
- Quarter

**Lab Practical:** Ask the student *Note: Answers given in italics!*

- Design and build an experiment that shows how to detect a magnetic field. *Magnetize the needle by wiping it in one direction with a magnet, stick it through a piece of foam, and float it in a cup of water. Compare the reading with your own hidden compass. Student can also bring a magnet close and the needle deflects.*
- Using all the materials, even the cup and the foam (remove the needle), separate the objects into two piles: one pile for things that are not magnetically attracted and another that are magnetically attracted. *When the student finishes, run a magnet over the two piles and see if the objects are in the correct piles.*

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## Student Worksheet

**This is your chance to show how much you have picked up on important key concepts, and if there are any holes. You also will be working on a homework assignment as you do this test individually with a teacher.**

### Materials:

- Needle
- Foam
- 2 different kinds of magnets (round or square, N-S pole locations different, etc.)
- Cup of water
- Paperclip
- Penny
- Quarter

### Lab Practical:

- Design and build an experiment that shows how to detect a magnetic field.
  
- Using all the materials, even the cup and the foam (remove the needle), separate the objects into two piles: one pile for things that are not magnetically attracted and another that are magnetically attracted.