

## Pull Iron From Breakfast Cereal

Iron is an important nutrient for our bodies. It carries oxygen throughout the body. People who don't have enough iron in their diet will feel tired and weak. That's why iron metal is added to some breakfast cereal!

### Objective

Using a magnet, test breakfast cereal for the presence of iron.

### Materials

- a large bowl or beaker
- water
- a large plastic bag that you can seal
- a strong bar magnet
- a magnifying glass
- some white tissues or paper towels
- iron fortified breakfast cereal (NOTE: Cereals that contain 100% of the RDA of Iron in the form of "iron" or "reduced iron" provide the greatest quantity of iron filings.)

**Safety Notice:** All applicable laboratory safety rules must be followed. Students should not perform any experimental activity without the teacher's supervision and express permission. Students must follow safety guidelines and wear appropriate protective gear.

### Procedure

1. Pour about 1 cup of cereal into a large sealable plastic bag and seal it, making sure not to trap any air.
2. Crush the cereal into a powder. The cereal must be crushed very well for the lab to work well.
3. Pour the crushed cereal into a beaker or bowl and add water to create a slurry (it is better for it to be too watery than to be too thick).
4. Mix with a strong bar magnet for up to 10 minutes (it may be possible to see the iron in less time if it has been crushed well).
5. Remove the magnet. If you look very closely, you should see tiny pieces of iron sticking to the magnet!
6. Wipe the end of the magnet firmly on a white tissue or paper towel. Fine iron filings should be visible. (Look for the black 'fuzz' on the paper towel.)
7. For a better look, use the magnifying glass to examine the iron filings.

### Conclusions

- What did you observe on the end of the bar magnet?

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