

A Rusty Change

Procedure

1. Record your observations in the chart below. Place a dry piece of steel wool in a plastic bag and seal the bag. Dip another piece of steel wool in water and place it in a plastic bowl. Leave them overnight. **Safety:** Wear goggles and disposable gloves.

Material	Color	Feel	Magnetic
Dry steel wool fibers			
Wet steel wool fibers			

2. **Observe** The next day, remove the dry steel wool from the bag. Use scissors to snip some of its fibers onto a paper plate. On another paper plate, cut fibers from the wet steel wool. Cut only parts that show a change in color.
3. **Record Data** Use a hand lens to carefully observe the fibers from both pieces of steel wool. Record the properties of each in your chart.
4. **Compare** Hold a magnet close to the fibers from each piece of steel wool. Compare and record in your chart what happens.

Conclusion

Write the answers to the questions below.

1. **Compare** The color change is due to rust. How is the rust similar to the original steel wool? How is it different?

2. **Infer** Are rust and steel wool the same material? What observations support your conclusion?

Investigate More!

Solve a Problem When metal rusts, its properties change. The metal object may no longer be useful. Make a list of ways to keep metal from rusting.