

Build a Charge

Procedure

- 1. Collaborate** Work with a partner. Blow up two balloons. Knot the neck of each balloon and tie with a string. Record your observations in the chart below.

| Balloon Setup | Results |
|---|---------|
| No treatment | |
| Each balloon rubbed with wool | |
| Each balloon rubbed with plastic wrap | |
| One balloon rubbed with wool, the other with plastic wrap | |

- 2. Observe** Hold one string. Have your partner hold the other string so that the two balloons hang about 10 cm apart. Observe any movements the balloons make. Record your observations.
- 3. Record Data** Rub each balloon with the wool cloth. Again, hold the balloons so they hang about 10 cm apart. Observe and record any movements they make.
- 4. Record Data** Let the balloons touch. Then rub both balloons with plastic wrap and let them hang next to each other. Record your observations.
- 5. Observe** Repeat step 4, but this time rub one balloon with plastic wrap and one with the wool cloth.

Conclusion

Write the answers to the questions below.

1. **Analyze Data** Rubbing a balloon with wool or plastic wrap gives the balloon an electric charge. Based on your data, how would you describe an electric charge?

2. **Infer** Based on your data, infer whether there is more than one kind of electric charge. How do your results support your inference?

Investigate More!

Design an Experiment Rub one balloon with wool. Choose other materials to rub another balloon with. For each new material, predict what will happen when the balloons are brought close to each other.

