

Name: _____

Date: _____

How to build a stable structure

Question: Explain how you can build a stable structure.

Prediction: _____

Materials:

1 empty pop bottle

1 tall paper towel roll

1 pop bottle, ½ filled with water

1 short paper towel roll

Procedure:

Part 1

1. Work with a partner. One person will be the foundation and the other person will be the wind.
2. The foundation person will stand straight with your legs together. The wind gently pushes the foundation from the side.
3. The foundation person now spreads their feet apart. The wind gently pushes the foundation from the side.
4. Switch roles (foundation & wind) and repeat steps 2 and 3.
5. Answer observation question #1 & 2.

Part 2

1. Put the 2 pop bottles on a desk.
2. Shake the desk.
3. Answer observation question #3.
4. Put the tall and short paper towel rolls on the desk
5. Shake the desk.
6. Answer observation question #4.

Observations:

1. Explain what happened when the wind pushed the foundation. (foundation legs together)

2. Explain what happened when the wind pushed the foundation the second time. (foundation legs apart)

3. Which pop bottle fell first? Explain why you think this happened.

4. Which paper towel roll fell first? Explain why you think this happened.

Conclusion:

Explain how you can build a stable structure.
