

Sand on the Move



Procedure

- 1. Collaborate** Fill the plastic shoebox about half full with sand. Press the sand into one end of the shoebox. Then smooth it to slope gently toward the other side.
- 2. Use Models** Carefully pour a thin layer of water into the shoebox. The water should cover part of the sand. You have made a model beach and ocean. Sketch the model below.

- 3. Observe** Put on goggles. Gently blow air on the sand through the straw. Try to build the sand into tiny hills and valleys.
- 4. Observe** Blow air through the straw over the water. Then shake the shoebox very gently. Observe any changes.

- 5. Predict** How do you think a rising ocean level would affect a beach? To test your prediction, slowly pour more water into the model ocean.

Name _____ Date _____

Conclusion

1. **Compare** How is your model similar to a real beach and ocean? How is it different?

2. **Infer** Describe ways that a beach could change from day to day, and over many years.

3. **Use Models** A scientist wants to model a real ocean beach. What properties of the beach should the model represent? What changes to the beach might the model help predict?

Design an Experiment How do wind and water change other materials? Test their effect on sod, or on soil with pine straw over it. Draw conclusions based on your observations.

Guided Inquiry