Sinking Holes

Objective

Watch how water dissolves different minerals causing the earth to sink.

Materials

- Styrofoam cup
- Larger cup that will hold the foam cup with some extra space
- Water
- Sugar
- Sand
- Small cardboard tube(smaller than a toilet paper roll)
- Scissors
- Circular piece of foam big enough to fit into the bottom of the Styrofoam cup

Steps

1. Put the piece of foam into the bottom of the Styrofoam cup.
2. Place the cardboard tube into the center of the cup and fill a quarter of the way with sugar.
3. Holding the tube tight against the bottom of the cup, pour sand around the tube, filling the cup.
4. Gently pull out the cardboard tube.
5. Fill the larger cup a quarter of the way with warm water.
6. Place the Styrofoam cup into the water.
7. Watch for a sinkhole to occur.

Conclusion

- What causes this is happen?
- How would it be different if you used cold water?

Name _____ Date _____

Sinking Holes

Introduction

Sink holes are a feature of a Karst Environment that may look very interesting but in reality can be quite dangerous and destructive. Sink holes are created when disappearing streams dissolve sediment away underneath the earth but the land above the hole stays intact. Eventually the crust that is not dissolved will lose support and give way, creating a hole in the ground.

Karst: distinctive landforms which develop on rock types that are readily dissolved by water

Sinkholes: A depression in the landscape where limestone has been dissolved.

Materials

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- Water
- Sugar
- Sand
- Small cardboard tube(smaller than a toilet paper roll)
- Scissors
- Circular piece of foam big enough to fit into the bottom of the Styrofoam cup

Procedure

1. Put the piece of foam into the bottom of the Styrofoam cup.
2. Place the cardboard tube into the center of the cup and fill it a quarter of the way with sugar.
3. Holding the tube tight against the bottom of the cup, pour sand around the tube, filling up the rest of the cup.
4. Gently pull out the cardboard tube.
5. What does the sand and sugar represent?

   _____

   _____

6. Fill the larger cup up a quarter of the way with warm water.

7. Place the Styrofoam cup into the cup with water.
8. Write down the starting time. _____
9. What do you think is going to happen?

_____

_____

10. Predict the outcome.

_____

_____

11. Wait and watch for a sinkhole to occur.
12. Record time when it sinks. _____ How long did it take? _____
13. Describe the process in your own words.

_____

_____

14. Compare times with other groups. How does yours differ from theirs?

_____

_____

15. How would this be different if we used cold water?

_____

_____