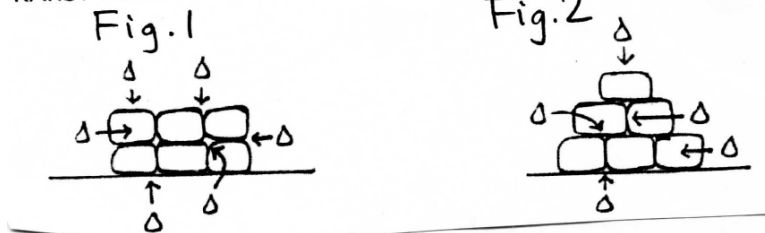


GEOL 1102
GEOLOGIC HAZARDS PART 5 - KARSTING

1. What is karsting? Explain how karst areas form.
2. Where are examples of karst areas in the U.S.?
3. Why is ground water pollution such a big problem in karst areas?
4. While most sinkholes occur in karst areas with limestone, we also see sinkholes in eastern New Mexico. What type of rock occurs here that is soluble in groundwater and can form sinkholes?

For this part of lab, you will make a model of a karst area using sugar cubes, **at least 3 cubes high and 4 cubes wide** (use at least 44 sugar cubes). Your instructor will give you a small beaker of colored water and an eyedropper (or pipette)

KARST MODEL



5. Use the sugar cubes to build a model of limestone that has been fractured, using the stacking method shown in figure 1. Using an eyedropper or pipette, add a small amount of **colored** water across the entire surface. Wait a few minutes. What happens?

Add a small amount more of water. After a few minutes, what happens?

Add another small amount of water and observe what happens.

Leave your first model alone while you build model #2, making the model at least 3 sugar cubes high and 4 or 5 cubes wide at the base.

6. Perform the same experiment with the stacking method in figure 2. Using an eyedropper or pipette, add a small amount of **colored** water across the entire surface. Wait a few minutes. What happens?

Add a small amount more of water. After a few minutes, what happens?

Add another small amount of water and observe what happens.

Are the results different from model #1? If so, explain why.

7. After both models have been left for about 10 minutes, carefully remove the upper level of sugar cubes. Describe what has occurred to the middle and lower layers of both models.

Middle and bottom layers of model #1:

Middle and bottom layers of model #2:

8. Are the effects of the middle and bottom layers the same in each model? How are they different? Explain why, if any differences occur.