



FACTivity

Time Needed: One class period.

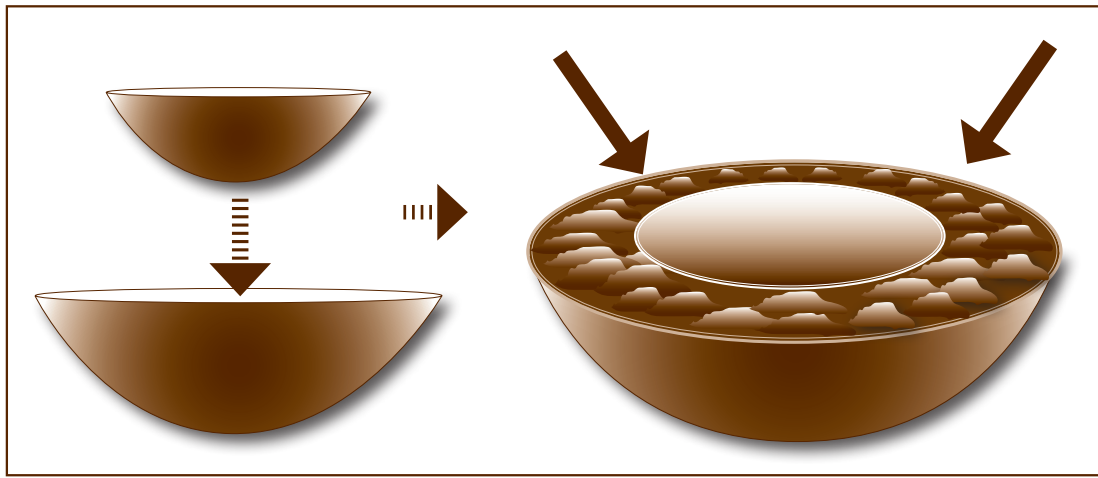
Materials Needed:

- Two bowls (a large one and a smaller one that fits inside the larger bowl) for each group of students.
- One package of Pepperidge Farm® Goldfish® crackers (six to seven fish for each group) or a similar type of cracker.
- One pitcher of water for each group.
- A large tray, towel, or newspaper to put under the bowls in case of spills.
- Water.
- Soil, sand, or some type of filling material that represents the banks of a river (enough for each group to use some).

In this FACTivity, you will create a model of what happens to things in a river when a flood occurs. Scientists often create models to help them understand better how something works. The method your class will use to figure out what happens to things in a river when a flood occurs is—

The teacher will divide the class into groups of three to four students. Each group will have two bowls (one large, one small), a pitcher of water, some Goldfish® crackers, and some supplies (soil, sand, or filling material) to create a riverbank. Note: For quicker cleanup, your teacher may provide some newspaper, a towel, or a tray on which to place the bowls.

- A.** Place the small bowl inside the large bowl. Then fill the large bowl with soil, sand, or whatever material you choose to represent a riverbank. (The larger bowl represents the banks that surround a river.) The large bowl should be filled up to the edge of the small bowl (see illustration).



- B.** Fill the small bowl with water. Fill it all the way to the top, then place your Goldfish® in the water. (The small bowl represents the river, and the Goldfish® represent salmon and other fish in the river.)
- C.** Refill your pitcher of water so that it is full. Quickly pour water from the pitcher into the small bowl. Observe what happens to the fish.
- D.** Discuss the following questions with your class in a class discussion or in small groups (as directed by your teacher):
1. Pouring the water into the small bowl from the pitcher represented what part of a flood?
 2. What happened to the Goldfish® in the water?
 3. What happened to the surrounding riverbank (the area in the larger bowl)?
 4. Do you think this FACTivity is a good model for what happens during a flood? Why or why not?
 5. What could you do to improve this model?
 6. How does the activity you did relate to the article you just read?

Extension: With your small group, design your own model of flooding. The model should be a physical model, similar to the one created in the FACTivity. Then, create your model and test it.

Math Extension: Count how many fish came out of the “river” (small bowl) onto the “riverbank” (large bowl). Then, calculate the percentage. Compare the percentages across the classroom and repeat the experiment. Create bar charts to compare. Discuss the findings.