

STORM DRAIN

SUGGESTED MONTH/EVENT	SUGGESTED GRADE
April, Earth Day	Grades 3-5

OBJECTIVE

To solve a real world problem of retrieving items from a storm drain.

STORY

Hypothetically, you are rushing to catch a plane. As you're rushing, you accidentally dropped your purse or backpack and all the contents fell into the storm drain. But you only have 20 minutes to create a tool to retrieve as many items as you can before your plane leaves.

MATERIALS

Set up 'drain' before the activity:

- 5 gallon bucket, no lid (drain)
- Cardboard (grate; must be big enough to cover the bucket)
- Scissors or cardboard cutter
- Various items to put inside the drain: air pods, mobile phone, sunglasses, wallet, watch, coins, cash (bills or coins), keys, hand sanitizer, lip gloss/chapstick, etc.

Retrieval tool for the students:

Various items as retrieval tools: cardboard, tape, clothespins, pipe cleaners, etc.

INSTRUCTIONS

1. Show the video:
2. Create a group of 2-3 students.
3. Go over the list of items that fell into the drain.
4. Go over the rules:
 - a. Students have 20 minutes to create a retrieval tool to get as many items as they can out of the drain.
 - b. During build time, students may test their retrieval tool and modify as necessary (engineering process).



REFLECTION

1. What did you do to retrieve your items?
2. What happens to the items that get left in the drain?

CHALLENGE

1. Add points to the items in the drain based on the retrieval's difficulty level.
2. Add trash in the 'drain'.