

Activity Overview:

This activity can be done both in groups and individually.

The **Seabin** is made with recycled plastic, and it incorporates a water filtration system along with a water pump technology. In this exercise, students will be able to understand the basics of water filtration, and how it is used to clean our marine ecosystem. It is an activity that allows students to observe and examine the how different filtration materials lead to different outcomes or results.

Materials:

Material	Quantity (per group)
2L Plastic Bottle	1
Rubber Band	1
Cheese Cloth (10x 10cm)	1
Soil	5g
Detergent	5ml
Water	30ml
Measuring Cylinder	1
Paper cup	1
Scissors	1

Instructions:

1. Create pollutant by mixing water (30ml), soil (5g), and detergent (5ml) in a cup. Mix it well.
2. Pour it into a measuring cylinder and observe the level of pollution. (Placing a white A4 paper at the back makes it easier to see.)
3. Cut the 2L plastic bottle in half with scissors. Students should watch out for injuries. Part A is the section with the mouth, and Part B is the bottom part of the bottle.
4. Take the cheese cloth and cover the mouth of part A. Hold it in place using the rubber band.
5. Place Part A in Part B so that the mouth of the bottle faces the bottom of Part B.
6. Slowly pour the pollutant into part A so that the pollutant flows through the mesh into Part B.
7. Observe how the pollution level of water changed and see how much pollutant remains in the cheese cloth.
8. The exercise can be modified by putting pebbles, rocks, or other types of cloth in Part A of the bottle before pouring the pollutant inside.
9. Discuss with your classmates which filtration system is most effective.