

Bioaccumulation

How does pollution in water bodies affect what we eat?

Lesson Plan

Introduction

To start of the lesson, talk with your class about the different types of pollution that we find in rivers and oceans. Maybe show the class some pictures or bring some examples that you yourself have collected from a nearby river, dam, or ocean.

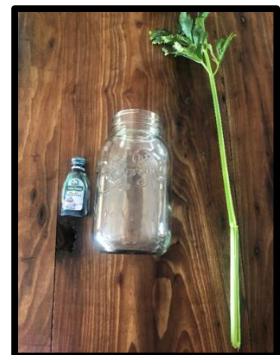
Discuss how pollution can damage ecosystems, kill wildlife, and even move up the food chain.

Explain to the class you can do a simple experiment to show how something in water can end up in the food that we eat. This can have a negative effect on our health and wellbeing.

To Note: This can be done as a class activity, group activity or and individual activity depending on class resources.

Activity Resources

1. A piece of celery (celery works well, because the colours of the food dye are clearly visible, but you can use light coloured flowers with the same effect)
2. A jar, beaker, or cup
3. Food colouring



Instructions

Step 1: Place some water in the container and add food colouring

Step 2: Stand the celery in the water

Step 3: Observe



Discussion Points

- The food colouring represents the pollution, the children can watch as the plant absorbs the pollution, and it moves up the celery stalk.
- Ask the children what would happen if they ate the piece of celery, where would the toxin go?

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- Explain that many pollutants contain toxins, and these are often absorbed by plants or eaten by animals. These plants and animals are then eaten by other animals and the toxin keeps moving up the food chain and never goes away.

Additional Resources

- <https://www.youtube.com/watch?v=N80av1SCugY>
- <https://www.youtube.com/watch?v=TZk6vcmLcKw>