

The Oceans – Week 5

Objectives:

- Understand that the egg drop activity showed us that the design of our weather balloon matters to getting the equipment down safely.
- Be able to find a location with a GPS and realize that the GPS gives a real location on Earth where an object can be found.

Schedule:

- Review of the oceans and what is happening to them (15 mins).
 - Students will fill out the back of the worksheet.
 - Vinegar and water activity.
 - Corals and other animals that have shells need calcium to survive. We drink milk to get our calcium, but ocean animals can't do that; they get theirs from the water. When CO₂ gets into the oceans, it mixes with calcium and animals can no longer use it. This makes them weak and they can't survive.
- Discuss how to make the egg drop and geocaching activity better (15 mins).
 - Relate this to the scientific method and how we need to change one thing and redo the experiment
 - What was expected vs observed? Why didn't the parachute work?
 - Did different designs matter?
- Use teacher set of geocaching supplies to redo geocaching (30 mins).
 - Revisit latitude and longitude-latitude lines are horizontal and measure north/south (ladder-tude); longitude lines are vertical and measure east west.
 - Place different objects in different locations around the school. Split the class into two and go out with one half at a time to use GPSs and find the objects.
 - Students will fill out a worksheet and fill in coordinates and find where certain coordinates are.
- Test the weather balloon to make sure all of the equipment works (30 mins).
 - Tether the weather balloon and turn all the equipment on.
 - Make sure all the equipment works.

Materials:

- School system geocaching supplies.
- Weather balloon.