

Argo Floats!

Activity - Worksheet

Dive into ocean monitoring with the international Argo project! Discover how scientists observe water properties to understand and monitor climate change. You're the scientist now... take a look at the Argo project and explore the data collected by this program.

Learning Outcomes

- Explain the importance of ocean monitoring
- Explain what the Argo system is, as well as its role in ocean monitoring
- Interpret ocean data gathered by Argo floats

New Terms

As you work through Step 1 and 2 of this activity, write down any words that are new to you! Take a minute to look up what each word means, and write the definition in your own words.

Example:

Oceanography - study of oceans. Includes physical (how they move, energy), chemical (what they're made of), and biological (living parts).

Step 1: Guided Notes for the [Ocean Monitoring Video](#)

This video was created by Fisheries and Oceans Canada. It explains how Canadian scientists monitor the ocean, as well as the importance of this task. Understanding more about the ocean will help us to create policies and make daily choices that leave a positive impact on our oceans. Answer the following questions after reflecting on the video.



[Ocean monitoring of Canada's West Coast](#)

<https://www.youtube.com/watch?v=9E-men0VJ68>

Why is it important to monitor oceans?

What do Argo floats do?

Step 2: Guided Notes for Argo: A window into the ocean:

This story map was made by the Argo International Program. It provides information about what the Argo system is, how it works, and why it is important. Use the following questions to keep track of new information as you read through the story map aloud, as a class.

 [Argo: A window into the ocean](#)

How much of our planet is covered in ocean? What does the ocean do for us?

Why is it hard to collect data about the ocean?

You've made it through the story map! In 2-3 sentences, explain what the Argo system is, and why it is important.

Step 3: Practice Data Gathering:

Scientists around the world have free access to the Argo data. Like a scientist, you have the opportunity to gather and interpret data! As a class, use these questions to practice with either data selection site.

 **Euro Argo Data Selection:** <https://dataselection.euro-argo.eu>
Ocean Ops: <https://www.ocean-ops.org/board?t=argo>

Table 1: Practice gathering data with your teacher

	Example	Practice - find information about a float on the Euro Argo Data Selection website.	Practice - find information about a different float on the Ocean Ops website.
Float Number (Reference)	Float 4902536		
Date (Latest Observation)	12.03.2023 13:57:00		
Latitude	45.115		
Longitude	-125.82		

Table 2: Practice gathering data with your teacher

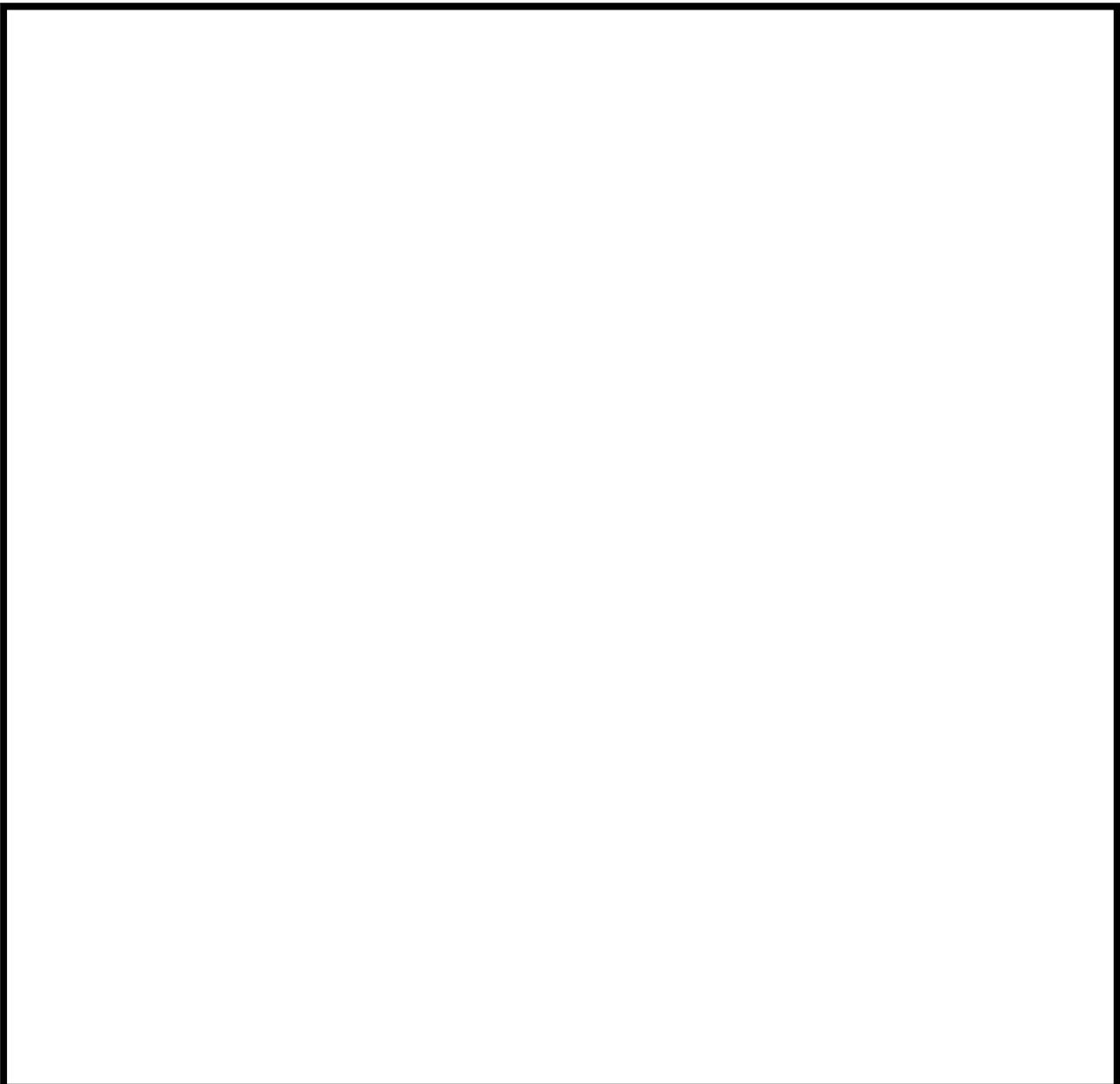
	Example	Practice
Float Number (Reference)	Float 6903822	
Date (Latest Observation)	05.03.2023 13:59:30	
Temp at sea-level (°C)	16.1	

Step 4: Argo Float Design

Congratulations on becoming scientists and monitoring the ocean! There is one last thing that needs to be done... The scientists are looking to upgrade their model of the Argo float and need your help!

Please draw your design of an Argo float below. You may include parts of the current model, and add your own, new ideas. Be creative! Would your float include cameras to see the aquatic wildlife? Or a camouflage design?

My Argo Float Design:



Please list what materials you would need to build your Argo float:

In 3-5 sentences, explain why scientists should use your Argo float model. How would it help them to better monitor oceans?
