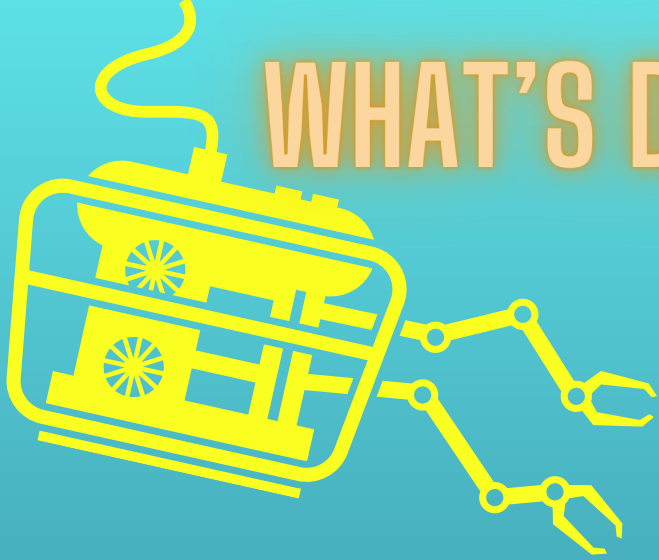


WHAT'S DOWN BELOW?

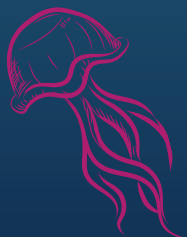


Prep Time
30 minutes

Activity Duration
10-15 minutes

Overview

Explore the wonders of the deep sea in this activity that allows participants to "discover" what's down below. Participants will illuminate various creatures and geologic formations that will inspire them to learn about the ocean's depths.



An activity created by Science Communication Fellow
Brittany Munson for Ocean Exploration Trust



Photo frame with transparent cover

Markers

Flashcards

Paper flashlight taped onto a ruler

Black construction paper*

How to Make a Shadowbox

Materials & Setup

- Black sheet of paper. The bigger, the better
- Glass cover/acrylic cover
 - Cover should be the same size as black paper
 - A photo frame works perfectly
- White construction paper for flashlight beam
- Something to be the flashlight "handle"
 - In the above photo, it is a ruler
- Fine-tip markers
 - [Exploration A-Z Flashcards](#)

This activity is able to be modified in many ways; adapt to what is necessary for your teaching needs!

This activity has best results in a room that has low-moderately low light; the features stand out more that way!

Step 1:

Select a card of your choice. Place card under the transparent covering. Trace card using markers.



Step 2:

Remove card from underneath transparent covering.



Step 3:

Place black paper underneath the transparent covering



Step 4:

Slip the flashlight beam inbetween the clear cover and the black paper; the subject is now vividly seen!



Continue this process until you have your desired seascape shadowbox!

Typically, 4-8 learners can explore one shadowbox. You can make more shadowboxes for a larger group if necessary, or have learners rotate through.

Excite!

Ask participants what they think they might find if they were to explore the deep sea? What is needed to explore the deep sea?---

Lights!

After hearing some answers, confirm that there is indeed life down in the depths and still so much to be explored.

Tell them that they are going to get the chance to be ROV pilots and learn about some of the animals and geological features that have been discovered because of curious explorers like them.



Explore!

Give participants 5-10 minute to explore the shadowbox by using the paper flashlight to get images to appear! What do they notice? What do they wonder?

Have them make observations about what they are finding. If they are working as a group, have them talk together about what animals they are seeing; what features do these animals have that they are curious about? Are they curious about any of the geology? Is there anything they're exploring that looks familiar to them?

Explain!

After the exploration is complete, ask participants what they discovered. Did anything surprise them? Have learners share what they noticed about different features deep-sea creatures have.

Using the back of the A-Z cards, allow them to learn even more about what they were exploring, the QR codes are very useful!

Different animals and geologic formations can be found in different parts of the ocean. We would expect to find most of the animals explored by ROV *Hercules* to be in the bathypelagic/midnight zone but there can be exceptions! Ask explorers what else they think has yet to be discovered? As an extension, you could have them draw their own version of what might be found on or near the seafloor.

Additional Resources/Extensions

[Ocean Zones Teaching Animation](#)

[Ocean Zone Home](#)

