

Sally Ride EarthKAM



Cool Career

Geographer Dawn Wright Oregon State University

The Ocean Calls

As a young girl, "Deep-sea" Dawn Wright wasn't sure what she wanted to be. Did she want to be an oceanographer, an underwater photographer, or a seagoing adventurer? She was sure she couldn't stay on land. "I grew up in Hawaii and always preferred the ocean," she says.

Hot Spots

Dawn has taken several dives in *Alvin*, a submersible that has been used to explore the *Titanic*. Dawn studies cracks in the ocean floor. These are places where Earth's crust has spread apart and magma oozes out. These cracks often form hydrothermal vents—towers of rock up to 60 meters (200 feet) tall. They spew boiling hot seawater! They're home to some strange sea life, including bacteria, tube worms, and albino crabs.



Dawn watched Jacques Cousteau explore the seas on TV every week when she was young.

By the Numbers

"Deep-sea" Dawn could also be nicknamed "Digital" Dawn. Her second passion is using computers to map underwater mountains, valleys, and volcanoes. She pieces together data from submarines and boats. Then she builds a model of what's below the surface.

A geographer studies the locations of Earth's features and how people affect and are affected by them. Dawn maps the ocean floor. **Other geographers**

- > protect wildlife by managing coastal zones.
- > lead outdoor expeditions.
- > help developers predict environmental impact.
- > guide toxic waste disposal.



Alvin can descend 4,500 meters (about 3 miles).

After you read about Dawn Wright, do these activities.

Search the Seven Seas

If you're looking for adventure, the ocean is the place to go. More than 70 percent of Earth's surface is underwater. Yet only about 5 percent of the ocean floor has been explored. It's up to you to explore more. But exploring is not cheap, so you will need a sponsor! Create a proposal to present to a potential sponsor. Be sure to answer these questions.

- > *Who* is on your team?
- > What will you accomplish?
- > When will you start and finish?
- > Where will you go?
- > Why is your mission important?

Ocean Exploration Proposal: _____

STANDARDS ALIGNMENT

NGSS MS-ESS1.C.2: The History of Planet Earth: Tectonic processes continually generate new ocean sea floor at ridges and destroy old sea floor at trenches.

Geography

- VI.18: The Uses of Geography: How to apply geography to interpret the present and plan for the future.
- **CCSS W.6-8.3:** Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

W.6-8.7: Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

Floor Fact

Find out more about the ocean floor. Research these ocean floor features and write a description of each one, including what life forms dwell there.

Undersea mountains:

Trenches:

Hydrothermal vents: _____