Cool Career

Geologist
Diane Evans
NASA Jet Propulsion Laboratory

"I'm always learning something new."

Space-eye View
Did you know that sometimes you can learn more about Earth from far away than from close up? That's why geologist Diane Evans uses satellites, which orbit hundreds of miles above our planet, to do her fieldwork. "The satellites give a broad view, so you can see patterns," Diane explains.

The Big Picture
The goal of one of Diane's satellite missions, the Aquarius mission, is to map ocean salinity, or salt content. The satellite uses instruments that are specially tuned in to the way salt in the ocean emits radiation. Even though the instruments are in space, they're so precise that they can detect half a teaspoon of salt in a gallon of seawater! If Aquarius shows that the amount of salt is dropping, it could mean the oceans are being diluted by melting polar ice—a sign of global warming.

Hey, Coach!
Diane oversees satellite missions to make sure everything—and everybody—is coordinated. "I'm like the coach of a team," Diane says. She learns what scientists want to know about Earth. Then she works with technology experts to design just the right instruments for the job.

A geologist studies the history and makeup of Earth's rock and soil. Diane studies Earth using space-based radar instruments on satellites. **Other geologists**

- look for mineral deposits.
- investigate contaminated soil and figure out how to clean it up.
- study how to predict volcanic eruptions and earthquakes.
- examine the causes of landslides.

Diane also enjoys getting an up-close view of the ocean.

After you read about Diane Evans, do these activities.

Salty Eggsperiment

Diane is investigating the salinity, or saltiness, of Earth's oceans to see if it is changing. Try this investigation to find out what effect salinity has on an object's tendency to float.

1. Place a hard-boiled egg in a large jar containing 1 liter of tap water. Describe what happens to the egg.

_____

_____

2. Predict what will happen if you add table salt to the water.

_____

_____

3. Add 1 tablespoon of salt to the water. Record what happens.

_____

_____

5. Continue to add 1 tablespoon of salt at a time. Record what happens after each addition.

_____

_____

_____

6. What do you think caused the egg to do what it did?

_____

_____

_____

_____

Is It 4 U?

Like many geologists, Diane enjoys

- > figuring out new ways to study our planet.
- > working with a team of people.
- > designing high-tech instruments for other scientists.
- > learning new things.

Discuss with a partner what parts of Diane's job interest you. Then write a paragraph explaining what kind of work you would like to do if you were a geologist.

_____

_____

_____

_____

_____

_____