
My NASA Data - STEM Career Connections

So, You Think You Can be an Oceanographer



Dr. Ivona Cetini?, Oceanographer

Perhaps you love water, you enjoy swimming or aquatic sports, you are curious about marine life, or you simply dream about a job related to the ocean. But even if you have never heard of what oceanographers do, you may already be practicing some skills to become an oceanographer.

Your Skills

Consider if you ever practice any of the following skills:

Skill	Example
Using satellite data.	• You use your phone to get directions to a place you want to go. • You watch storms move across a map when you look at the weather forecast.
Asking questions in or out of school.	• You are curious as to why sometimes there are many waves and other times there is calm water. • You wonder why some animals can swim faster than others.
Working collaboratively.	• You share ideas with a partner before sharing them with the whole class. • You work on a team project.
Observing carefully.	• You find a bug, plant, or pattern that others did not notice until you point it out. • You are excited when you discover something that is new to you.
Making connections.	• You see a cloud and realize that it has the shape of an animal or an object • You name a drawing or a character based on something else it reminds you of.
Managing feelings.	• You go on an overnight school trip or sleepaway camp and stay persistent even if you miss your family. • You continue doing your school work or homework even on days when you do not feel happy.
Staying active.	• You exercise and/or play a sport. • You go to the park, to the beach, or on a walk around your neighborhood.
Valuing art and creativity.	• You play a musical instrument, sing, or compose your own music. • You draw, knit, create digital projects, or express yourself in any other artistic way.
Taking risks.	• You try a new type of food even if it is unfamiliar. • You answer a question even when you are not sure you will get it right.

If you have practiced any of these skills, they will be very useful if you decide to become an oceanographer! If you have not practiced these skills yet, you can start now. Let's meet an oceanographer, and we will see how your skills match up with her skills.

Meet Dr. Ivona Cetini?



Ivona at about 20 years old, finding bunnies and chickens in Paris. Credit: Vinko Zlatic

Dr. Ivona Cetini? is an oceanographer who works at NASA Goddard Space Flight Center. She studies tiny living things in the ocean called phytoplankton and tries to understand how they affect the ocean and the Earth.

She uses satellites and special tools to study the ocean from far away. These tools help her see things we cannot observe with our eyes, like what is in the water and how it changes over time.

Ivona has also traveled around the world on research ships to study the ocean up close. On some of these trips, she was the lead scientist, helping guide the research and the team.

She works on large NASA projects that study how the ocean, air, and climate are connected. One of these missions is called [PACE](#) (**P**lankton, **A**erosol, **C**loud, **o**cean **E**cosystem). PACE uses super cool, high-tech tools to take a picture of almost the entire Earth—the oceans, the air, and the land—every one or two days. This amazing ability gives us new information about how healthy and diverse sea plants are, what's happening with plants on land, the different kinds of clouds, and things floating in the air like smoke, dust, and bad gases such as the one called nitrogen dioxide.

Your Shared Skills

Next you will complete a table called Practices and Skills that shows the connection between skills and career practices. *A skill is the ability to do something. Practices are habits applying skills for a purpose and continuing to improve the skills.* It is possible for a skill to connect to more than one career practice. Now you know more about how Ivona uses skills to work as an oceanographer at NASA. So, it is time to complete the following table with examples of activities that you and Ivona do. Feel free to rewatch the video to help you complete the table. You may also add any other skills you identify, as well as examples of activities you would like to do to practice a new skill!

1. Watch the following short video and pay close attention to how Ivona uses different skills to do her work as a NASA oceanographer.
2. How might the life skills Dr. Cetinic mentions be important for any career?

[Ask SME: Oceanographer - Dr. Ivona Cetini?](#)

Ask SME: Oceanographer - Dr. Ivona Cetini? | https://www.youtube.com/watch?v=c_NOM4QMZpc |
Credit: National Institute of Aerospace

Practices and Skills

Career Practices	Skill that Supports	Example of How Ivona	Example of How You
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	Practice/s	Uses This Skill	Use This Skill
Asking Questions and Defining Problems	Using satellite data.		
Analyzing and Interpreting Data or Using Models	Asking questions in or out of school.		
Analyzing and Interpreting Information or Communicating Information	Working collaboratively.		
Planning and carrying out investigations	Observing carefully.		
Obtaining Information or Analyzing and Interpreting Data	Making connections.		
Engaging in Argument from Evidence	Managing feelings.		
Asking Questions and Defining Problems	Taking risks.		
Life Skill	Valuing art and creativity.		
Life Skill	Staying active.		

How might these Career Practices be important for this career?

Just for Fun

What is your favorite ice cream flavor? Ivona's favorite ice cream flavor is pistachio! Whether or not you and Ivona have the same ice cream preferences, you and Ivona sure share many important skills!

Reflection

Many of your current activities are already preparing for a very bright future. If you are (or become!) curious about exploring the ocean and marine ecosystems, you are practicing many skills that will help you succeed as an Oceanographer. Feel free to use the diagram below to envision your Oceanographer career. You can draw yourself as an oceanographer in the center of the diagram!

A circular graphic organizer with a central circle and six surrounding segments, each with a prompt and lined space for writing.

Central circle prompt: I will focus on topics such as...

Segments (clockwise from top):

- I will collaborate with...
- My data will include...
- I will work at...
- I will use tools like...
- Some skills I will use...
- My work will help...

Answer Key

Teachers who are interested in receiving the answer key, please complete the [Teacher Key Request and Verification Form](#). We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access.

