



# Discover your inner SheHero:

Finding Inspiration in STEM SheHeros



# The SheHeroes Mission

SheHeroes empowers young girls of all backgrounds to dream big, explore their interests and passionately pursue non-traditional careers. Through our online content and video profiles, girls imagine their own potential by engaging with influential stories of exceptional, successful women role models across all fields. Like Sally Ride, we believe: "If you can't see it, you can't be it!"

This program is an extension of the SheHeroes mission above. By engaging in these lessons, students will take a deep dive to not only learn about a wide range of possible STEM careers, but also discover themselves in the process. We hope through this educational experience, all students can see the possibilities to apply their strengths and interests to any STEM career. Students will discover a diverse group of female STEM Pioneers that have been breaking glass ceilings and inspire students to push through their own barriers and achieve their dreams.

# **ESSENTIAL QUESTIONS**

- 1. What are STEM careers and what are the different possibilities to pursue?
- 2. How do STEM careers have positive impacts on others?
- 3. How are we all engaging in STEM?
- 4. Which STEM careers inspire me to have an impact on others even if it is not STEM?
- 5. How can we apply our interests and skill sets to different STEM careers?
- 6. What can we do to begin our pursuit of a career in STEM?

#### UNITS

01 The Creators

02 The Observers

03 The Explorers

04 The Analysts





# Unit 01 / The Creators

All STEM careers involve creativity and imagination, but this attribute is highlighted with STEM creators. STEM creators put their imagination to work to brainstorm new ideas, new ways of doing things, and build new inventions and tools. They allow their minds to be free and think outside of the box. They are highly intelligent and build on their knowledge.



Sometimes STEM creators are a little rebellious going against the traditional and finding their own ways of doing things. Creators help provide the tools, methods, and foundational knowledge for other STEM careers to do their jobs. At times being a creator can be scary, but as with all STEM careers, they boldly share their inventions. Sometimes their ideas work, and sometimes they do not. Either way they are continuously learning and creating better and bigger each time!

#### **CHARACTER TRAIT FOCUS**

Innovative, imaginative, free-thinkers, problem solvers, rebellious, non-traditional, creative, bold, curious, intelligent.

#### LESSONS

Lesson 1.1 - Al and Computer Scientists

Lesson 1.2 - Aerospace Engineer

Lesson 1.3 - Software Engineer

Lesson 1.4 - Biomedical Engineering

Lesson 1.5 - Nanoscientist







In this lesson students will explore the career of AI and Computer Scientists with an emphasis on the creative aspects and the need to really push boundaries and thinking outside of the box. Through the art of story-telling students will connect with the passion, attributes, and struggles of Carol Riley, the founder of Drive AI, which is using AI and Robotics to create a self-driving car. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and AI and Computer Scientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Al and Computer Scientists
- 2. Explain the important contributions and impacts of AI and Computer Scientists
- Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Al and Computer Science
- 4. Reflect and explain what you have in common with AI and Computer Scientists

#### LEARNING ACTIVITIES

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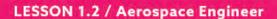
#### **EXAMPLES**



Solve problems by designing technology and using artificial intelligence.

- Carol Reiley





In this lesson students will explore the career of Aerospace Engineers with an emphasis on the creative aspects of using their imagination to develop innovations. Through the art of story-telling students will connect with the passion, attributes, and struggles of Jessica Marquez, who wroks at the NASA Ames Research center desiging innovations to help astronauts live and work in space. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Aerospace Engineers , even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Ask questions to determine why some objects maintain lift in the air longer than others
- 2. Describe the knowledge and skills of Aerospace Engineers
- 3. Explain the important contributions and impacts of Aerospace Engineers
- 4. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Aerospace Engineering

**EXAMPLES** 

5. Reflect and explain what you have in common with Aerospace Engineers

#### **LEARNING ACTIVITIES**

click here to access all content



Create different inventions and tools to help people live and perform work in outer space.

- Jessica Marquez





# **LESSON 1.3 / Software Engineer**

In this lesson students will explore the career of Software Engineers with an emphasis on the creative aspects of solving problems by designing new programs. Through the art of story-telling students will connect with the passion, attributes, and struggles of Erika Baker, a Principal Group Engineering Manager at Microsoft. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Software Engineers , even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Software Engineers
- 2. Explain the important contributions and impacts of Software Engineers
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Software Engineering
- 4. Reflect and explain what you have in common with Software Engineers

### **LEARNING ACTIVITIES**

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#### **EXAMPLES**



Create software and computer programs through advanced coding and computer algorithms.

- Erica Baker (Principal Group Engineering Manager at Microsoft and advocate for diversity, equity, and inclusion in tech, as well as expanding access to tech exposure and education)



# **LESSON 1.4 / Biomedical Engineering**

In this lesson students will explore the career of Biomedical Engineers with an emphasis on the creative aspects of thinking outside of the box beyond the traditional approaches. Through the art of story-telling students will connect with the passion, attributes, and struggles of Dr. Gilda A Barabino, who uses cellular and tissue enginnering to treat human diseases. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Biomedical Engineers, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- Develop models to demonstrate how Biomedical Engineers create devices to diagnose and treat disease
- 2. Describe the knowledge and skills of Biomedical Engineers
- 3. Explain the important contributions and impacts of Biomedical Engineers
- 4. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Biomedical Engineering

**EXAMPLES** 

5. Reflect and explain what you have in common with Biomedical Engineers

#### LEARNING ACTIVITIES

click here to access all content



Use cellular and tissue engineering to treat diseases such as sickle cell.

 Dr. Gilda A Barabino, cellular and tissue engineering



# **LESSON 1.5 / Nanoscientist**

In this lesson students will explore the career of Nanoscientists with an emphasis on the creative aspects of pushign boundaries and going beyond the unimaginable. Through the art of story-telling students will connect with the passion, attributes, and struggles of Dr. Joy Wolfram, who designs nanoparticles to treat cancer and other diseases. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Nanoscientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Nanoscientists
- 2. Explain the important contributions and impacts of Nanoscientists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Nanoscience
- 4. Reflect and explain what you have in common with Nanoscientists

#### LEARNING ACTIVITIES

click here to access all content

#### **EXAMPLES**



Use nanoscience technology to treat diseases and cancer. - Dr. Joy Wolfram Nanomedicine





# Unit 02 / The Observers

All STEM careers involve curiosity, but this attribute is highlighted with STEM observers. STEM observers have an unquenchable thirst for knowledge. They are the ones that not only have many questions about how everything works, but they also want all the answers.



Their superpower is their perceptiveness. They often are able to keep their minds quiet and still, so that they can best observe and interpret their surroundings and their environment. STEM observers are very in tune with everything happening. They may be great at seeing small details or even seeing the big picture of how the details come together, but often they are able to do both. At times being an observer can be scary, but as with all STEM careers, they boldly put themselves to see the action. Sometimes they may not understand their observations, but they continue to ask questions and seek answers until they do.

#### CHARACTER TRAIT FOCUS

Perceptive, detail oriented, big picture thinkers, synthesize information well, deep processing thinking, knowledge seeking, creative, bold, curious, intelligent.

#### LESSONS

Lesson 2.1 - Storm Tracker/ Atmospheric Scientist

Lesson 2.2 - Volcanologist

Lesson 2.3 - Medical Imaging Scientist/ Radiologist

Lesson 2.4 - Geneticist

Lesson 2.5 - Primatologist





# LESSON 2.1 / Storm Tracker - Atmospheric Scientist

In this lesson students will explore the career of Atmospheric Scientists with an emphasis on the observation skills and being perceptive of many factors that cause storms. Through the art of story-telling students will connect with the passion, attributes, and struggles of Margaret McCalla. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Atmospheric Scientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Atmospheric Scientists/Storm Trackers
- 2. Explain the important contributions and impacts of Atmospheric Scientists/Storm Trackers
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Atmospheric Science
- 4. Reflect and explain what you have in common with Atmospheric Scientists/Storm Trackers

#### LEARNING ACTIVITIES

#### **EXAMPLES**

click here to access all content

Explores the work of meteorologists and their observations of weather and climate phenomenon to make predictions of weather patterns and climate trends.

 Margaret McCalla - Meteorologist at the National Oceanic and Atmospheric Administration (NOAA) and attend Spelman College





# **LESSON 2.2 / Volcanologist**

In this lesson students will explore the career of Volcanologists with an emphasis on the observation skills and seeing the big picture to predict volcanic activity. Through the art of story-telling students will connect with the passion, attributes, and struggles of Rosaly Lopes. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Volcanologists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Volcanologists
- 2. Explain the important contributions and impacts of Volcanologists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Volcanology
- 4. Reflect and explain what you have in common with Volcanologists

#### LEARNING ACTIVITIES

# **EXAMPLES**

click here to access all content

Explores the work of volcanologist and their observation of different factors that help them predict and learn about eruptions.

- Rosaly Lopes, senior research scientist with NASA, studies volcanoes in space.





# LESSON 2.3 / Medical Imaging Scientist - Radiologist

In this lesson students will explore the career of a Radiologist or Medical Imaging Scientist with an emphasis on the observation skills related to knowledge seeking. Through the art of story-telling students will connect with the passion, attributes, and struggles of Dr. Kopal S. Kulkarni. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Radiologists or Medical Imaging Scientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Medical Imaging Scientists/Radiologists
- 2. Explain the important contributions and impacts of Medical Imaging Scientists/ Radiologists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Medical Imaging Science/Radiology
- 4. Reflect and explain what you have in common with Medical Imaging Scientists/Radiologists

#### LEARNING ACTIVITIES

### **EXAMPLES**

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A doctor that studies medical images to make observations about the human body and advance the field of medicine and the tools to learn more about the human body.

- Dr. Kopal S. Kulkarni





# LESSON 2.4 / Geneticist

In this lesson students will explore the career of Geneticists with an emphasis on the observation skills and seeing the smallest details. Through the art of story-telling students will connect with the passion, attributes, and struggles of Dr. Irene Ayako Uchida. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Geneticists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Geneticists
- 2. Explain the important contributions and impacts of Geneticists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Genetics
- 4. Reflect and explain what you have in common with Geneticists

# LEARNING ACTIVITIES

### **EXAMPLES**

click here to access all content

Studies genes, including how they are inherited, mutated, activated, or inactivated. They often study the role that genes play in disease and health.

- Dr. Irene Ayako Uchida





# **LESSON 2.5 / Primatologist**

In this lesson students will explore the career of Primatologists with an emphasis on the observation skills and deep thinking about the reasoning for different primate behaviors. Through the art of story-telling students will connect with the passion, attributes, and struggles of Mireya Mayor. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Primatologists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Primatologists
- 2. Explain the important contributions and impacts of Primatologists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Primatology
- 4. Reflect and explain what you have in common with Primatologists

# LEARNING ACTIVITIES EXAMPLES

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Observe primates in the field to learn about anthropology, zoology, biology, and medical research.

- Mireya Mayor - the female Indiana Jones, Nat Geo





# Unit 03 / The Explorers

All STEM careers involve being brave, but this attribute is highlighted with STEM explorers. STEM explorers put their bravery to work by discovering new places that have yet to be explored or visited by other humans. Their desire for adventure and new experiences is never satisfied, as they see exploration as an endless opportunity.



Along their journey they are using their perceptive skills to learn and share their knowledge with others, often pushing the boundaries of what we thought and changing the way we think. Without explorers the unknown would never be known. At times being an explorer can be scary, but as with all STEM careers, they boldly blaze the trail. Sometimes the unknown is daunting, but bravery does not mean you are never scared. It is realizing how scary it is and exploring anyways, despite the fears.

#### CHARACTER TRAIT FOCUS

Adventurous, brave, perceptive, free thinkers, persistent, risk takers, creative, curious, bold, intelligent.

#### **LESSONS**

Lesson 3.1 - Astronaut

Lesson 3.2 - Deep Sea Explorer

Lesson 3.3 - Wildlife Ecologist/Biologist

Lesson 3.4 - Robotics Engineering/Mars Rover Engineer

Lesson 3.5 - Archeologist





# LESSON 3.1 / Astronaut

In this lesson students will explore the career of Astronauts with an emphasis on being a brave explorer. Through the art of story-telling students will connect with the passion, attributes, and struggles of Dr. Mae C. Jemison. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Astronauts, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Astronauts
- 2. Explain the important contributions and impacts of Astronauts
- Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Astronomy/Astrophysics
- 4. Reflect and explain what you have in common with Astronauts

#### LEARNING ACTIVITIES

#### **EXAMPLES**

click here to access all content

Take a look at the job of an astronaut that is part of a shuttle mission or lives on the International Space station.

- Dr. Mae C. Jemison





# LESSON 3.2 / Deep Sea Explorer

In this lesson students will explore the career of Deep Sea Oceanographers with an emphasis on being a risk taking explorer. Through the art of story-telling students will connect with the passion, attributes, and struggles of Sylvia Earle, exploring the deep ocean before the technology existed. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Deep Sea Oceanographers even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- Describe the environmental differences of the deep ocean (either pressure, light, temperature,etc) and predict how that is a challenge for oceanographers and deep-sea explorers
- 2. Describe the knowledge and skills of Oceanographers/Deep Sea Explorers
- 3. Explain the important contributions and impacts of Oceanographers/Deep Sea Explorers
- 4. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Oceanography/Deep Sea Exploration
- Reflect and explain what you have in common with Oceanographers/Deep Sea Explorers

### LEARNING ACTIVITIES

### **EXAMPLES**

click here to access all content

Travel to the deep sea to make discoveries of new species.

- Sylvia Earle, Marine biologist and explorer of deep oceans using submersibles and other robotics, founded Deep Ocean Engineering and Deep Ocean Exploration and Research





# LESSON 3.3 / Wildlife Ecologist/Biologist

In this lesson students will explore the career of Wildlife Biologist with an emphasis on being an adventurous explorer. Through the art of story-telling students will connect with the passion, attributes, and struggles of Nalini Moreshwar Nadkarni. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Wildlife Biologist, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Wildlife Ecologist/Biologist
- 2. Explain the important contributions and impacts of Wildlife Ecologist/Biologist
- Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Ecology/Biology
- 4. Reflect and explain what you have in common with Wildlife Ecologist/Biologist

#### LEARNING ACTIVITIES

click here to access all content

#### **EXAMPLES**

Studies animals and other wildlife and how they interact with their ecosystems.

- Nalini Moreshwar Nadkarni - American ecologist who pioneered the study of Costa Rican rain forest canopies. Using mountain climbing equipment to make her ascent, Nadkarni first took an inventory of the canopy in 1981, followed by two more inventories in 1984





# LESSON 3.4 / Robotics Engineering/Mars Rover Engineer

In this lesson students will explore the career of Robotics Engineers with an emphasis on being a free thinking explorer using robotics to learn about extremem environments from the safety of home. Through the art of story-telling students will connect with the passion, attributes, and struggles of Mallory Lefland. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Robotics Engineers, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Explain the factors that limit how a robot moves through an environment
- 2. Describe the knowledge and skills of Robotics Engineers
- 3. Explain the important contributions and impacts of Robotics Engineers
- 4. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Robotics Engineering
- 5. Reflect and explain what you have in common with Robotics Engineers

#### **LEARNING ACTIVITIES**

click here to access all content

#### **EXAMPLES**

Explore planets like Mars by building a robot that performs different tasks on Mars.

- Mallory Lefland





# **LESSON 3.5 / Archeologist**

In this lesson students will explore the career of Archeologists with an emphasis on being a persistent explorer searching for clues of the past that are not easy to find. Through the art of story-telling students will connect with the passion, attributes, and struggles of Katy Croft Bell. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Archeologists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Archeologists
- 2. Explain the important contributions and impacts of Archeologists
- Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Archeology
- 4. Reflect and explain what you have in common with Archeologists

#### LEARNING ACTIVITIES

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#### **EXAMPLES**

Studies the origin, development, and behavior of humans by searching for ancient artifacts and evidence of human life.

 Katy Croft Bell of Nat Geo, MIT, underwater archeologist that uses engineering to discover ship wrecks and more





# Unit 04 / The Analysts

All STEM careers involve problem solving, but this attribute is highlighted with STEM analysts. STEM analysts put their problem solving skills to work by analyzing data and evidence to form predictions about the future. They allow their minds to see what is not in plain sight.



They find solutions and ideas that are not visible to others. Analysts are more than just looking at data, they care about the future of others. With their predictions and forecasts they help others continue their work in STEM. At times being an analyst can be scary, but as with all STEM careers, they boldly share their predictions. Sometimes their ideas and predictions are accurate, and sometimes they are not. Either way, they continuously share their predictions with evidence to support them, even if others disagree or do not want to hear their predictions.

#### CHARACTER TRAIT FOCUS

Problem solvers, synthesis of evidence and data, big picture thinkers, perceptive, creative, curious, bold, intelligent.

#### LESSONS

Lesson 4.1 - Forensic Scientist

Lesson 4.2 - Wildlife Population Biologist

Lesson 4.3 - Cybersecurity Analyst

Lesson 4.4 - Infectious Disease Scientist

Lesson 4.5 - Climate Change Scientist







In this lesson students will explore the career of Forensic Scientists with an emphasis on the detective skills to find evidence and data. Through the art of story-telling students will connect with the passion, attributes, and struggles of Dr. Cecilia Rouse. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Forensic Scientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Forensic Scientists
- 2. Explain the important contributions and impacts of Forensic Scientists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Forensic Science
- 4. Reflect and explain what you have in common with Forensic Scientists

#### LEARNING ACTIVITIES

#### **EXAMPLES**

click here to access all content

Forensic science technicians aid criminal investigations by collecting and analyzing evidence.

- Dr. Cecilia Rouse





# LESSON 4.2 / Wildlife Population Biologist

In this lesson students will explore the career of Population Biologist with an emphasis on synthesizing data to analyze population numbers of organisms. Through the art of story-telling students will connect with the passion, attributes, and struggles of Clea Koff. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Population Biologist, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Wildlife Population Biologists
- 2. Explain the important contributions and impacts of Wildlife Population Biologists
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Wildlife Population Biology
- 4. Reflect and explain what you have in common with Wildlife Population Biologists

#### LEARNING ACTIVITIES

#### **EXAMPLES**

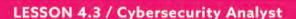
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Management of wildlife populations by looking at the numbers of organisms and analyzing predictions for population numbers.

- Clea Koff







In this lesson students will explore the career of Cybersecurity Analysts with an emphasis on problem solving skills to analyze issues in cyber networks. Through the art of story-telling students will connect with the passion, attributes, and struggles of Parisa Tabriz. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Cybersecurity Analysts, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Cybersecurity Analysts
- 2. Explain the important contributions and impacts of Cybersecurity Analysts
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Cybersecurity Analysis
- 4. Reflect and explain what you have in common with Cybersecurity Analysts

LEARNING ACTIVITIES > click here to access all content

# **EXAMPLES**

Information security analysts plan and carry out security measures to protect an organization's computer networks and systems to prevent hackers from accessing their networks.

 Parisa Tabriz - a computer security expert who manages Google's information security engineering team, which is responsible for improving Google's product security. She chose the title "Security Princess" due to her experience in hacking and internet security and a desire for a less staid, more whimsical title on her business card





# LESSON 4.4 / Infectious Disease Scientist

In this lesson students will explore the career of Infectious Disease Scientists with an emphasis on perspective skills to analyze all the data. Through the art of story-telling students will connect with the passion, attributes, and struggles of Katalin Karikó. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Infectious Disease Scientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Epidemiologists/Infectious Disease Experts
- Explain the important contributions and impacts of Epidemiologists/Infectious Disease Experts
- 3. Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Epidemiology
- 4. Reflect and explain what you have in common with Epidemiologists/Infectious Disease Experts

#### LEARNING ACTIVITIES > click here to access all content

#### **EXAMPLES**

- "Disease detectives" search for the cause of disease, identify people who are at risk, determine how to control or stop the spread or prevent it from happening again.
- Katalin Karikó responsible for the foundation of mRNA research that led to the COVID-19 vaccine





# LESSON 4.5 / Climate Change Scientist

In this lesson students will explore the career of Climate Change Scientists with an emphasis big picture thinking to analyze global solutions to a large scale problem. Through the art of story-telling students will connect with the passion, attributes, and struggles of Victoria Herman. Finally, students will connect with the career by finding their own example of an inspiring role model. Students will be encouraged to identify connections between themselves and Climate Change Scientists, even if it is not a career of future interest.

#### LEARNING OBJECTIVES

- 1. Describe the knowledge and skills of Climate Scientists
- 2. Explain the important contributions and impacts of Climate Scientists
- Describe a characteristic, story, or interesting innovation/discovery/event related to the field of Climate Science

**EXAMPLES** 

4. Reflect and explain what you have in common with Climate Scientists

#### LEARNING ACTIVITIES

click here to access all content

Analyzes current climate trends and predictions to create different scenarios for climate change and impacts on Earth.

- Victoria Herman - arctic/climate change scientist





