

INTRODUCTION TO CITIZEN SCIENCE



DESCRIPTION OF THE LEARNING SCENARIO

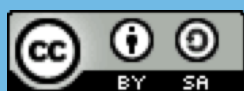
PREPARED BY VILNIUS TECH

Citizen Science is the involvement of everyday people in making scientific observations of the world around us. These observations address real world problems and contribute to scientific research projects. Citizen Science initiatives provide opportunities for the public to collect data in the field and report findings to databases used by professional scientists. Amateur scientists have long been contributing meaningful observations to science. This growing area formalizes the collaborations between citizens and the scientific community. The SciStarter database contains over 1,200 projects in all areas of science. In this lesson, students will explore SciStarter to discover projects that interest them.

RESOURCES NEEDED: COMPUTER ACCESS

The lesson has been designed to be completed in a 60minute class period.

THE LEARNING SCENARIO WAS PREPARED UTILIZING MATERIALS BY THE CUYAHOGA VALLEY ENVIRONMENTAL EDUCATION CENTER



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KEY CONCEPTS AND VOCABULARY

Citizen Science (from SciStarter: <https://scistarter.org>):

a collaboration between scientists and those of us who are just curious or concerned and motivated to make a difference. Also called “Community science”, “Amateur science”, “crowdsourced science”, “volunteer monitoring”, and “public participation in scientific research”.

Four common features of citizen science practice:

- anyone can participate
- participants use the same protocol so data can be combined and be high quality
- data can help real scientists come to real conclusions
- a wide community of scientists and volunteers work together and share data to which the public, as well as scientists, have access



OPENING QUESTIONS (5 MINUTES)

Ask students the following questions:

**WHAT DO YOU THINK
CITIZEN SCIENCE IS?**

**WHAT DOES IT MEAN
TO BE A SCIENTIST?**



SCISTARTER EXPLORATION (15 MINUTES)

Provide each student with a copy of the **Introduction to Citizen Science: SciStarter Exploration handout** which contains the link to SciStarter, an online directory for Citizen Science projects. Have students read the SciStarter introduction to Citizen Science (follow link on handout) to learn more about the vast world of Citizen Science and to help them answer questions in the handout. Then go to the home page by selecting the logo in the upper left-hand corner of the page or by searching for SciStarter using a web browser. Have students select “Project Finder” in the top menu and browse through the projects to find one that interests them.



PRESENTATION PREPARATION AND PRESENTATION (30 MINUTES)

Have each student prepare a one-minute presentation on a Citizen Science project of their choice. The seven bullet points at the bottom of the Introduction to Citizen Science: SciStarter Exploration handout serve as a template for the presentation content.

Have students present their selected Citizen Science projects.



INTRODUCTION TO CITIZEN SCIENCE: SCISTARTER EXPLORATION

NAME _____
DATE _____

GO TO THE SCISTARTER WEBSITE AT [HTTPS://SCISTARTER.ORG/CITIZEN-SCIENCE](https://scistarter.org/citizen-science) TO LEARN MORE ABOUT CITIZEN SCIENCE. PLEASE READ THE ARTICLE AND ANSWER THE FOLLOWING QUESTIONS.

1. WHAT ARE THE FOUR COMMON FEATURES OF ALL CITIZEN SCIENCE PROJECTS?

2. WHAT IS THE BENEFIT OF CITIZENS CONTRIBUTING TO SCIENCE?

3. IS IT NECESSARY FOR SOMEONE TO BE A STUDENT OR HAVE A SCIENCE BACKGROUND TO PARTICIPATE?

AFTER COMPLETING THE INTRODUCTORY QUESTIONS, TRAVEL TO THE SCISTARTER HOMEPAGE BY CLICKING THE SCISTARTER LOGO IN THE LEFT-HAND CORNER. NEXT, SELECT THE “PROJECT FINDER” TAB LOCATED IN THE MENU AT THE TOP OF THE HOMEPAGE. USE THE SEARCH FEATURE TO BROWSE THE AVAILABLE CITIZEN SCIENCE PROJECTS. WHEN YOU FIND A PROJECT THAT INTERESTS YOU, PREPARE A MINI PRESENTATION OF YOUR FINDINGS. YOUR PRESENTATION SHOULD CONTAIN THE FOLLOWING INFORMATION:

- WHAT CITIZEN SCIENCE PROJECT DID YOU CHOOSE?
- A GENERAL DESCRIPTION OF THE PROJECT
- IN WHAT LOCATIONS ARE THE DATA BEING COLLECTED?
- WHO CAN COLLECT DATA FOR THE PROJECT?
- WHAT IS THE GOAL OF THE PROJECT?
- HOW COULD THIS PROJECT BE ADAPTED TO CUYAHOGA VALLEY NATIONAL PARK?
- INCLUDE A PICTURE THAT RELATES TO THE CITIZEN SCIENCE PROJECT

FINALLY, SHARE YOUR RESULTS WITH YOUR CLASSMATES TO LEARN ABOUT THE VARIETY OF PROJECTS HAPPENING ACROSS THE PLANET.

