



Become a Citizen Scientist

Amateur observers have always made important contributions to science—just think of Charles Darwin observing finches in the Galapagos. Thanks to modern technology, it's easier than ever for citizen scientists to connect with professional researchers and share their observations. With the help of your smartphone (or simply using your own five senses), you, too can record your observations and become a citizen scientist.

Did you know? James Smithson, founder of the Smithsonian Institution, was also a citizen scientist! Learn more about how the Smithsonian conducts citizen science projects here: <https://www.si.edu/volunteer/citizenscience>.

**What is a citizen scientist, and what role can they play in helping researchers make important breakthroughs?
How can making observations and inferences sharpen your skills as a citizen scientist?**

Explore Projects in Your Community

Download one of the apps below to find a project in your area and start recording your own observations.



iNaturalist (Apple or Android) – Explore data related to your local area and share your observations and images.

- **Explore** – Use the search bar to type in your location.
- **Share** – Take a walk in your neighborhood or a local park and begin uploading your own pictures of plants, animals, insects, and birds!



Earth Challenge 2020 (Apple or Android) – Use the camera on your smartphone to capture plastic pollution and air quality in your community.

- **Plastic pollution** – Take pictures of plastic that you see in the environment.
- **Air pollution** – Take a picture of the sky and upload to the app. Follow the instructions to record your perception of the air quality in your community.

Making Observations and Inferences

You know that your five senses are hearing, sight, smell, taste, and touch. But have you ever really thought about how you use all five to observe your surroundings?

- **Observations** occur when you gather information by using your senses.
- **Inferences** are explanations for the observations you have made, and they are based on your past experiences and prior knowledge.

Observations and inferences are connected! For example, if you smell food cooking in another room, the smell is an observation. You might know based on the smell that it is time for dinner—that conclusion would be an inference.

Your Mission:

1. Pick a setting to observe. This could be your yard, the room where you're doing this activity, the inside of your refrigerator, or a favorite place in your house. The choice is yours! **Explain why** you chose this location.
2. Identify at least **three observations** you can make about this location. For each of the observations, identify which of the five senses you used. Use descriptive words to record your observations.
3. Develop **three inferences** from these observations. What can you conclude based on what your senses told you?

Record your responses in a well-developed journal entry. Include any photographs or drawings you would like to support your writing. Write in complete sentences to fully explain your ideas!