



CITIZEN SCIENCE STARTER KIT

OBSERVE • RECORD • CONTRIBUTE

A beginner-friendly guide to exploring nature and
contributing to science where you live.

No special equipment required.

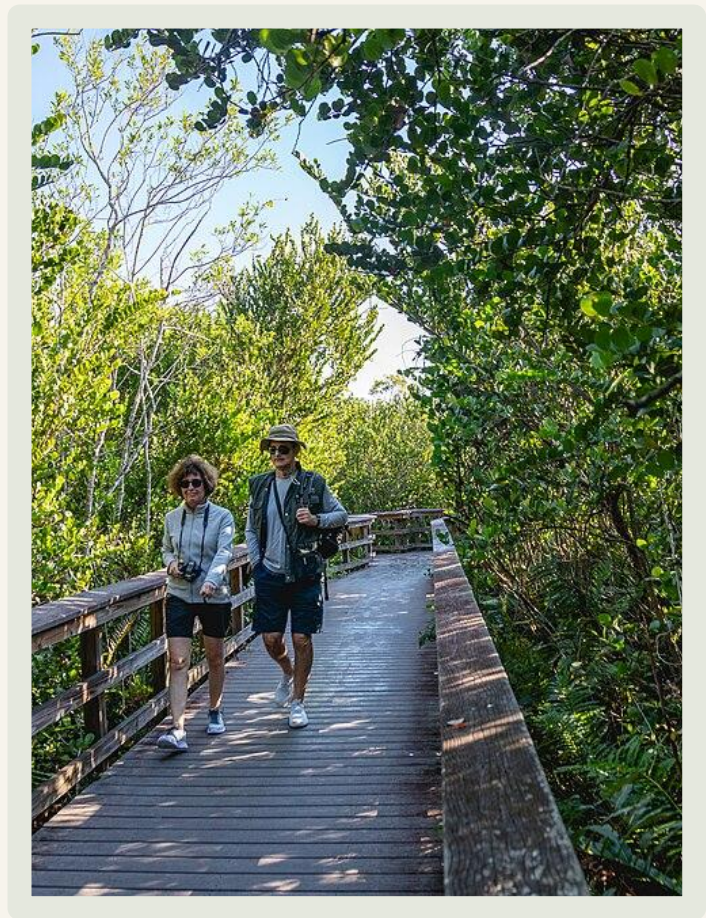
LEARNING THROUGH NATURE™

START WHERE YOU ARE

Citizen science allows people outside of professional research teams to contribute observations and data that can help scientists understand patterns across places and over time.

You do not need a laboratory, a science degree, or a trip to a national park. A backyard, balcony, neighborhood, local park, or walking trail can become a place for meaningful observation.

What matters most is not finding something rare. It is making careful observations that can be recorded, repeated, and shared.



The basic idea is simple:

1

OBSERVE

2

RECORD

3

CONTRIBUTE

Start with what is actually happening around you. Ordinary observations become valuable when they are careful, consistent, and connected to a larger question.

CHOOSE YOUR FOCUS

Start with one thing that makes you want to look closer.

BIRDS

Species or description • number observed • behavior • location • time

PLANTS

Flowering • fruiting • new leaves • leaf loss • growth • seasonal change

POLLINATORS & INSECTS

Type observed • number • plant visited • behavior • time of day

WEATHER

Temperature • rainfall • cloud cover • wind • changes over time

SEASONAL CHANGE

First flowers • migrating birds • insect activity • fruiting • leaf change

***TIP: Choose one focus for your first observation.
You can always expand later.***

OBSERVE LIKE A SCIENTIST

Good citizen science begins by separating what you observe from what you think it means. Record the evidence first. Interpretation comes later.

WHEN? Date and time

WHERE? Location and habitat

CONDITIONS? Weather, light, temperature if known

WHAT? Species or best description you can make

DOING WHAT? Behavior, movement, feeding, interactions

EVIDENCE? Photo, sketch, count, measurement, or notes

WHAT DO YOU WONDER? Questions can guide your next observation or investigation.

OBSERVE RESPONSIBLY

Give wildlife space, avoid damaging habitat, stay on appropriate paths, and never handle an organism simply to get a better observation or photograph.

Describe first. Explain later.

RECORD WHAT YOU NOTICE

Use your own journal or notebook. A useful field entry does not have to be polished. It simply needs to capture what you observed.

SET THE SCENE

Record the date, time, location, weather, and anything important about the habitat.

DESCRIBE WHAT YOU NOTICE

Write what you see, hear, smell, or otherwise detect. Focus on what you actually observe before trying to explain it.

ADD DETAIL

Add evidence that someone else could understand: counts, approximate size, color, movement, behavior, location, or interactions with other organisms.

SKETCH OR DOCUMENT

Make a quick sketch, add labels, or note any photographs you took. Your sketch does not need to be artistic. Its job is to record useful information.

WRITE WHAT YOU WONDER

Finish with one or more questions. What surprised you? What would you like to observe again? What might be worth investigating?

TRY THIS

Spend 10 to 15 minutes observing one small area. The longer you stay still, the more you may begin to notice.

RETURN AND LOOK FOR PATTERNS

Citizen science becomes more powerful when you return. Repeated journal entries can reveal changes that a single observation cannot.

RETURN TO THE SAME PLACE

Visit again on another day or at another time. Try to observe the same area, species, or phenomenon.

RECORD THE SAME BASICS

Again note the date, time, location, weather, and what you observe. Consistency makes your observations easier to compare.

COMPARE YOUR ENTRIES

What appeared again? What is missing? What increased, decreased, moved, bloomed, arrived, or disappeared?

LOOK FOR A PATTERN

Write down one pattern you think may be emerging. Don't worry about being right. A pattern is something to continue observing, not necessarily a conclusion.

CONSIDER OTHER EXPLANATIONS

What else might explain what you are noticing? Weather, time of day, season, habitat, food availability, or simply chance may influence what you observe.

ASK A NEW QUESTION

What does the pattern make you wonder? What other information might help you understand what is happening?

PLAN YOUR NEXT OBSERVATION

Decide what you will look for the next time you return.

FIELD NOTE

A pattern is not a conclusion. It is something worth watching, questioning, and investigating further.

CONTRIBUTE TO A LARGER PROJECT

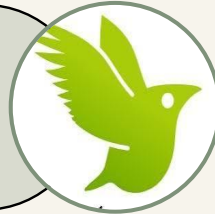
Once you are comfortable observing and recording, you may be ready to contribute your observations to an established citizen-science project.

Before joining, read the project's instructions carefully. Useful contributions depend on following the same observation and reporting methods as other participants.

FIND A PROJECT THAT MATCHES YOUR INTEREST

Biodiversity

Use platforms such as **iNaturalist** to document plants, animals, fungi, and other organisms.



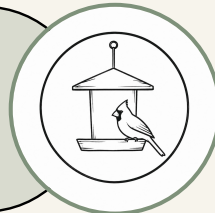
Birds

Projects such as **eBird** collect bird observations from locations around the world.



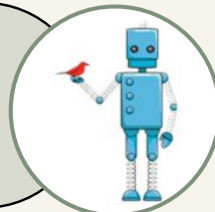
Feeder Birds

In the U.S. and Canada, **Project FeederWatch** uses repeated observations of birds visiting feeding areas.



Explore More Projects

SciStarter can help you find citizen-science opportunities by topic, location, or type of participation.



BEFORE YOU SUBMIT

Follow the project protocol, record what you actually observed, and be clear when you are uncertain. Reliable observations matter more than impressive ones.

Use this kit as a beginning. Keep observing, return to the same places, follow your questions, and explore the nature and science happening around you.

EXPLORE LEARNING THROUGH NATURE