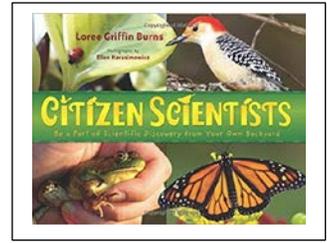


Any Citizen Scientist Book STEAM Lesson Research with Real Scientists!



Suggested titles:

Citizen Scientists: Be a Part of Scientific Discovery from Your Own Backyard by Lorree Griffin Burns

The Magic School Bus and the Climate Challenge by Joanna Cole

Not Your Typical Book About the Environment by Elin Kelsey (4th - 8th Graders)

Getting into Citizen Science by Vic Kovacs

Me...Jane by Patrick McDonnell

Lesson duration: 60 minutes with Read Aloud then planned “club-style” meetings: at least 2-3 times, 45-60 minutes each

Suggested Age Range: 4-16, adults/families

STEM Activity: Children will participate in an authentic scientific data gathering or other real-world investigation

*Review some real opportunities for children and families to participate in locally or globally and choose one or two that your community or families might be interested in. See suggestions at this link or in the list below.

<https://www.kcedventures.com/blog/12-amazing-citizen-scientist-projects-for-kids>

Objective: Children will participate in a Citizen Scientist Club and share what role they played and successes that were achieved with informal journal writings.

Supplies/Resources/Tech:

- dependent on citizen science projects chosen
- nature, science or other type handwritten journal
- pencils, pens, colored pencils
- *Integrated Technology journal option: [Penzu](#), free digital journaling or other online journal program or device app
- online access via computers or other devices

Read Aloud: stopping to discuss at talking points that support the practices of being a citizen scientist or the specific of the opportunities you’ve preselected

Introduction: “Not only can you make a difference in caring for the world around us, it is everyone’s responsibility to take care of our home, Earth. “There is no Planet B.” Earth is the only home we have. Scientists here and all over the world need your help. There are many projects in which scientists need help collecting information, data, to help them research, study and investigate natural happenings, phenomena. You can help.” Use the preview link above or any other site to describe some likely topics children of your target age ranges might be interested in. Have children turn-and-tell-a-friend about one or two projects that might interest them. Encourage the families to talk about how they can complete the scientist’s request. Families can choose more than one project.

Children Ask Questions: Encourage children to ask questions. Answer procedure questions directly. Record these, if able, to revisit later. (Some questions may be answered today and others another visit. You might have to read to find out an answer

to your questions. You might look on the Internet or find a YouTube video answer. Some questions just can't be answered and that's okay.)

Citizen Scientist Challenge: “Choose one, or more citizen science project that interests you. Participate in or complete at least one project. Keep a journal with short entries of your experiences. Bring your journal each time we meet and share some of your entries. Show types of simple, hand written, even handmade journals and online, digital sites for journals, as age appropriate. Children and families may work together or on their own.”

Guided Practice:

- Have children and families search for and select one or more citizen scientist projects that interest them. If possible, they can get started immediately.
- Circulate, asking children and families what topics and projects interest them and how they will write their experiences in a journal. Accept all ideas.
- If desired, have families record their citizen scientist projects on a sign-up sheet.

Independent Practice: Each time the citizen scientist groups meet, have them share their projects and experiences with the whole group.

Children answer questions posed as able or researched: Return to the list of questions children asked and have children answer, as able.

Children and Families Share/Present: At the last “meeting,” ask children and families what they valued and enjoyed about their projects. What was a challenge? Why? Will they continue to participate in more citizen scientist projects? Why?

- Have everyone applaud for each project.

See links below for additional Citizen Scientists' Opportunities

<https://scistarter.com/citizenscience.html>

<https://www.parentmap.com/article/stream-stem-science-education-classes>

<https://www.scientificamerican.com/citizen-science/>

https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=136445

<https://www.citizensciencealliance.org/>

<http://citizenscience.org/>

<http://www.earthsciweek.org/citizen-science>

https://www.goodreads.com/list/show/97882.Best_Citizen_Scientist_Books

[How to Start a Nature Journal](#) EducationPossible

[Make Your Own Nature Journal](#) Hike It Baby

[Nature Journal Resources](#) Pinterest

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