

Incorporating Intellectual Freedom into STEM Programs

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How can librarians connect children with trustworthy scientific source material about climate change? Here we look at ways to include intellectual freedom concepts in STEM/STEAM programming for children.

The national STEM (Science, Technology, Engineering, and Math) initiative has enjoyed broad support in schools and libraries for years. Yet, what science tells us about how humans are negatively impacting the world has become highly contentious and is even censored.

Global warming/climate change is the most far-reaching example. The media, pushed by political forces, give equal credence and air time to a small number of scientists who deny the predictions based on scientific studies.

Consider the tips and program ideas below, focusing on providing children with accurate, age-appropriate information on climate change.

1. **Use age-appropriate choices.** Choose books that speak to children in clear and understandable language appropriate for their age and ability level. The books and information you give should not dwell on the dangers.
2. **Focus on optimism.** Emphasize solutions early on in the process of giving information. Suggest daily positive changes people can do to set an example for their family and friends. For example, to conserve water, people can turn off the running water while they brush their teeth.
3. **Discuss nature and actions.** Discuss the benefits of nature, even something as simple as a visit to a playground and how it makes them feel to be in a natural setting. Read books at storytime that show the beauty of nature and talk about the animals. Discuss how humans can protect the disappearing habitats of these animals.
4. **Enlist experts.** Invite an environmental scientist to give a presentation or partner with a local non-profit with a mission to educate people about recycling. Here is an example of one in the Chicago area: <https://www.scarce.org/>
5. **Research.** Research reliably factual websites that present the science about contentious issues.

Sample Programs

Sample Program 1

Theme: Kids for the Climate! What Children Can Do About Climate Change / Global Warming

Rationale: Greta Thunberg, the Swedish teenager who started a worldwide movement to draw attention to climate change, has inspired millions of

children and adults. When children hear her story, they want to know what they can do personally to help slow climate change.

Introduce the Topic: Start with a short introduction about climate change and the issues around it. The recent devastating fires in Australia and California underscore the threat from drought that comes with changing weather patterns. Describe renewable energy and compare it to energy from fossil fuels. Explore the threat to children’s health from climate change with information from the American Academy of Pediatrics.

Read: *Our House Is on Fire! Greta Thunberg’s Call to Save the Planet* by Jeanette Winter; *What Is Climate Change?* by Gail Herman; *Why Are the Ice Caps Melting? The Dangers of Global Warming* by Anne Rockwell

Alternate Titles: *Listen* by Holly M. McGhee; *The Global Warming Express* by Marina Weber (the author wrote this story as a child and became an activist at age 6); *If Polar Bears Disappeared* by Lily Williams

Extension Activities: Research American child activists for stopping climate change, such as Alexandria Villaseñor, Benji Backer, Varshini Prakash, Isra Hirsi. What led them to become activists?

Sample Program 2

Theme: Recycling

Rationale: Children can change their daily habits in simple ways that can help the environment and the people, animals, and plants in it.

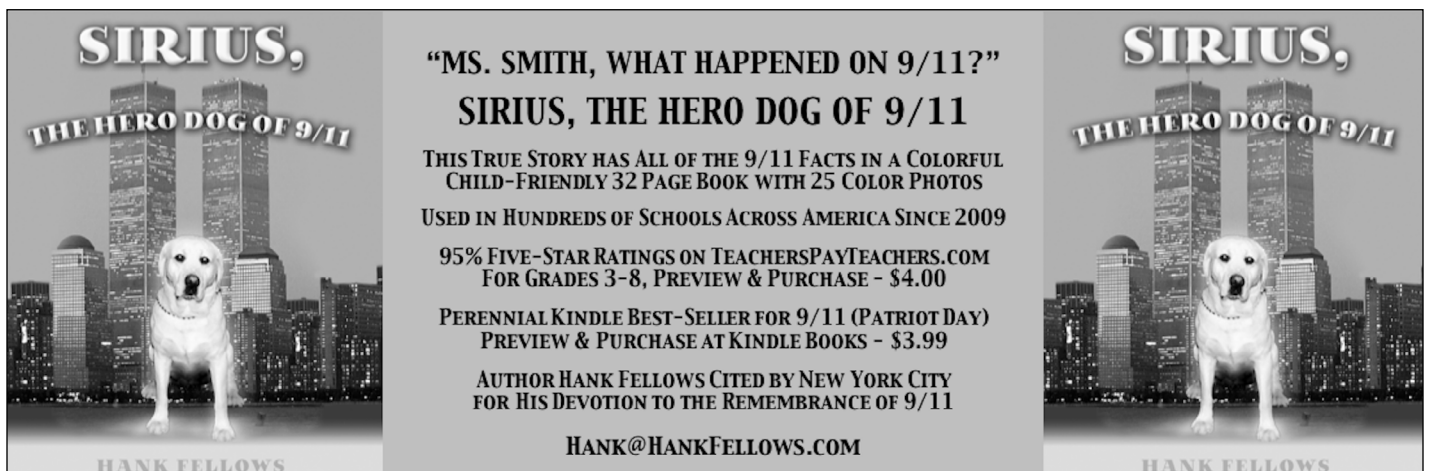
Introduce the Topic: Bring in a box of clean items that were used in a home and discarded. Explain what recycling is and ask them to separate the items into “recyclable” or “garbage.”

Read: *The Giving Tree* by Shel Silverstein; *Green Living: No Action Too Small* by Lucia Raatma; *What a Waste: Trash, Recycling, and Protecting Our Planet* by Jess French

Alternate Title: *All That Trash: The Story of the 1987 Garbage Barge and Our Problem with Stuff* by Meghan McCarthy

Extension Activities: Children collect or list the plastic, aluminum, and paper their household uses in one day.

- What can be recycled? (Contact your local curbside pickup recycler’s website.)
- Where does the recycling go?
- What happens to the things put in the regular garbage?
- Teach the “Reduce, Reuse, Recycle, Refuse” motto and discuss how children can personally limit their use of plastic. &



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