**NEW Just released by EEC**

**EEC Preschool STEM Curricula**

**Shed Children's Center The Pumpkin Patch Project- Exploring The Life-Cycle Process**

[**https://drive.google.com/folderview?id=0ByGzm79kvcR\_UDNndVBFZUhvOWs&usp=sharing**](https://drive.google.com/folderview?id=0ByGzm79kvcR_UDNndVBFZUhvOWs&usp=sharing)

**YMCA of Central Massachusetts A Preschool STEM Teaching Curriculum on Gardening**

[**https://drive.google.com/folderview?id=0ByGzm79kvcR\_eFN1cHpqb0htQkE&usp=sharing**](https://drive.google.com/folderview?id=0ByGzm79kvcR_eFN1cHpqb0htQkE&usp=sharing)

**Heritage Museums and Gardens Inc. Collections - A STEM Focused Curriculum**

[**https://drive.google.com/folderview?id=0ByGzm79kvcR\_WTNVSHRrbWhCdFE&usp=sharing**](https://drive.google.com/folderview?id=0ByGzm79kvcR_WTNVSHRrbWhCdFE&usp=sharing)

**Clarendon Early Education Services Inc - Four STEM Units in English, Spanish and Portuguese**

[**https://drive.google.com/folderview?id=0ByGzm79kvcR\_XzdZNk5yekVWWkU&usp=sharing**](https://drive.google.com/folderview?id=0ByGzm79kvcR_XzdZNk5yekVWWkU&usp=sharing)

**Mass Audubon**- Four Units on:

* Our Feathered Friends
* Digging into Soil
* Tree-meandrous Trees
* Wicked Cool Weather

All of these can be found at [www.massaudubon.org/education](http://www.massaudubon.org/education)

**Children's Books:**

* *Roller Coaster* by Maria Frazee
* *Pull, Lift, and Lower: A Book about Pulleys* by Michael Dahl
* *What Do Wheels Do All Day?* by April Jones Prince
* *Tires, Spokes, and Sprockets: A book about wheels and axles* by Michael Dahl
* *Roll, Slope, and Slide: A Book about Ramps* by Michael Dahl

**Teacher's books/Resources:**

* Hatch Early Learning. (2013). *STEM classroom activity guide*. Author: Winston-Salem, NC. Retrieved from, https://s3.amazonaws.com/upload.hatchearlychildhood.com/ebooks/STEM\_Booklet\_Final.pdf
* Moomaw, S. (2013). *Teaching STEM in the early years.* St. Paul, MN: Redleaf Press.
* STEM Sprouts Teaching Guide: http://www.bostonchildrensmuseum.org/sites/default/files/pdfs/STEMGuide.pdf
* The National Academies Advisors to the Nation on Science, Engineering, and Medicine (2011). *STEM smart brief: STEM smart: Lessons learned from successful schools. Waltham, MA: ECE Inc. Retrieved from,* [*http://www.successfulstemeducation.org/sites/successfulstemeducation.org/files/STEM%20Smart%20Brief-Early%20Childhood%20Learning.pdf*](http://www.successfulstemeducation.org/sites/successfulstemeducation.org/files/STEM%20Smart%20Brief-Early%20Childhood%20Learning.pdf)

**Blogs:**

Parks, J. (2013). *Stem is essential for kids to bloom*. Retrieved from, http://hatchearlylearning.com/stem-blog/

**Videos:**

*Sid the Science Kid: Slide to the Side:* <http://youtu.be/RBMSx21gKFM>

*5 Fun Science Experiments for Kids (w/Grover!):* <http://youtu.be/BeLT-O8Mz2M>

**Websites:**

* Bostonchildrensmuseum.org/stem-sprouts
* PBS Teachers: STEM Education Resource Center: http://www.pbs.org/teachers/stem/
* Peer and the Big Wide World: peepandthebigwideworld.com
* Resourcesforearlylearning.org

**Curriculum Resources (school-age)**

1. [Exploratorium](http://www.exploratorium.edu/)
Provides interactive, web features, activities, programs, and events for **K-12**. Saturday and summer professional development workshops are available through the Teacher Institute.
2. [NASA — Educators](http://www.nasa.gov/audience/foreducators/index.html)
Lesson plans, teacher guides, classroom activities, video clips, games, posters, and more for teachers and students in **grades K-4, 5-8, 9-12**, and higher education.
3. [eGFI: Dream up the Future](http://www.egfi-k12.org/)
Promotes engineering education with **K-5, 6-8, 9-12** lesson plans, activities, outreach programs, and links to web resources. Teachers and students can download the first three issues of eGFI magazine.
4. [Kinetic City](http://www.kineticcity.com/)
Science games for students in **grades 3-5**. One activity asks students to replace the body systems of a character who sounds like Arnold Schwarzenegger. The website requires free registration.
5. [National STEM Video Game Challenge](http://www.stemchallenge.org/)
**Middle school** (5-8), **high school students** (9-12), **and educators** are invited to design games that incorporate STEM content or STEM themes in innovative and engaging ways. Home schoolers are eligible to enter as well. Sign up to be notified about the 2013 competition.
6. [Master Tools](http://www.shodor.org/master/)
Eight interactive math and science tools and simulations for students in **grades 6-12**. All simulations and curriculum materials meet the new National Science Education Standards and National Math Education Standards.
7. [Engineer your Life](http://www.engineeryourlife.org/)
This guide introduces girls in **grades 9-12** to young women engineers and highlights careers. A section for parent and counselors furnishes background in engineering to better advice students. The site has a link to a companion site for girls in **grades 5-8**.

**Professional Development**

1. [STEM Education Resource Center](http://www.pbs.org/teachers/stem/)
Provides nearly 4,000 science, technology, engineering and math resources for **PreK-5, 6-12** as well as free, self-paced modules for **teachers** teaching global climate change to middle school and high school students.
2. [NASA ePDN - Electronic Professional Development Network](https://nasaepdn.gatech.edu/)
NASA offers free online professional development certificate programs for **K-12 teachers** in robotics, statistics, project-based inquiry learning, and technology integration and self-directed courses in astrobiology, microgravity, and outer space environment.
3. [A Compendium of Best Practice K-12 STEM Education Programs](http://eie.org/sites/default/files/bayer_compendium.pdf) ( PDF, 6.2 MB, 106 pgs.)
All 38 **K-12** STEM programs included in this report provide challenging content/curriculum, an inquiry-learning environment, defined outcomes/assessment, and sustained commitment/community support. Each program entry gives an overview, defines target population and learning environment, and presents highlights of results. Contact information is provided.

**Bonus**

1. [STEM Educator Materials](http://stem.firstbook.org/materials)
Download posters, educator guides with activities and age-appropriate career information for your students. All activities meet national education standards of learning for math, science and technical literacy. Registration is required but free.
2. Why STEM Should Begin in Early Childhood http://www.edweek.org/ew/articles/2013/03/06/23chesloff.h32.html

**Resources for Families:**

STEM Families Workbook:

http://www.bostonchildrensmuseum.org/sites/default/files/pdfs/rttt/stem/english/STEM.Teaching.Kit\_for\_Web.pdf

**This list Electronically**

**Early Childhood STEM Resource List**

**https://drive.google.com/file/d/0ByGzm79kvcR\_N3Z1ZllETDhTblU/view?usp=sharing**