

**Early Childhood - STEM
Spring Home Kits
K0 - 5th Grade**

The Early Childhood and STEM departments partnered to provide home kits for students in grades K0 - 5th. The kits are aligned with the District's Early Childhood Focus curriculum and the STEM curriculum and are organized around the themes of Water & Social Justice in Boston.

DISTRIBUTION TO SCHOOLS

The Spring kits are [pre-assembled](#) and ready to be sent home. They will be **shipped directly** to schools in quantities corresponding to the school's student capacity which in most cases is a lot higher than actual enrollment numbers.

Delivery of Home Kits to schools is expected to start on Monday, February 8th.

The shipping company offers inside delivery which means that someone has to be at the school to receive the home kits and that a space should be assigned within the school to receive the delivery. **(Currently kits are being shipped to the Principal's attention.)**

Legos for K2 kits (only), related to the Construction unit, will be delivered separately beginning **Tuesday, February 9th**. Please add the Lego boxes to the Home Kits for all K2 students.

Important Contacts for Kits Distribution & General Questions:

- **K0/K1 - 2nd Kits - General:** Marcela Mahecha, mmahecha@bostonpublicschools.org
- **3rd - 5th Kits Materials & STEM Curriculum:** Elizabeth Milewski, ekenney2@bostonpublicschools.org
- **Kits Delivery to Schools:** Kathleen Pauyo, kpauyo@bostonpublicschools.org
- **Science Adaptations K0/K1 - 2nd:** Molly Peters, mrovenko@bostonpublicschools.org

SPRING HOME KITS OVERVIEW

Early Childhood (K0/K1 - 2nd)

Young children in particular need hands-on experiences that cross domains. The district's curriculum, [Focus](#), is designed specially to engage young learners as they construct knowledge. The Focus Curriculum contains 4-6 units, depending on the grade, e.g. Wind and Water, Animal Habitats, Construction, Erosion, and are designed for scaffold students' and now families' knowledge around the Massachusetts and Common Core standards.

The Early Childhood Department staff produce weekly curriculum guides for teachers and families to help them adapt the Focus curriculum for remote and hybrid settings. The home kits provide the materials students need to participate in the curriculum from their home or other remote setting. Teams from both the Early Childhood and the STEM departments have worked to combine the kits and the curriculum to maximize the STEM, Literacy and social studies experiences students are having.

STEM Focus (K0/K1 - 5th)

The Spring Home Kits will include materials to support project-based learning connected to challenges integrating Science, Literacy, Math, & History standards at each grade level. (See below.) The materials can be reused so that students and teachers can complete more than one challenge with them and also use them for individual content area projects.

The STEM department will have corresponding 3rd-5th grade lessons on the Academic website by Mid February.

K0/K1 - 2nd will have STEM activities incorporated in the Science and Engineering component of the respective Teacher Guides.

STEM Challenges:

Water filtration- Our planet is covered by 80% oceans, leaving the bulk of the available water, salt water. Can you design a mechanism that can filter the salt out of the water without heating it?

Flood Prevention- The City of Boston was expanded starting in 1630 when early settlers began filling in the land using a structure called wood pilings to support them. As a result, most of Boston's harbor is below sea level and the highest point in the city is Roxbury. This has led to the gentrification of Roxbury. Can you build something to help prevent global warming flooding of Boston harbor?

Erosion- Erosion has increased as a result of Global Warming, which has caused water sources to be more contaminated. Can you build a model of erosion and its negative impact on water sources?

Green Water Transportation- Our planet is covered by 80% oceans, creating an opportunity for travel and trade by water. A lot of boats require gas or oil to run, which contains materials that can increase global warming. Can you design and build a mode of transportation that is good for the environment?

Farming & Irrigation- In order to survive, Colonizers from Europe had to learn to farm and irrigate their crops from the Native Americans. Farming can help improve the air quality and provide food for a growing population. Can you grow a flower with an irrigation system you have built?

Water Cycle- Water is a natural resource but is not unlimited. The water cycle helps to ensure that all of life has the water it needs to survive. Boston is surrounded by a harbor and contains many ponds & rivers that help provide water to the community. Can you develop a mechanism that can help move water to the Boston Communities that is good for the environment?

Extra Challenge: How many mechanisms can you build that can support your community using this kit?

MATERIALS

K - 2nd Grade - Books:

Each kit includes ONLY ONE book of the following list per grade level:

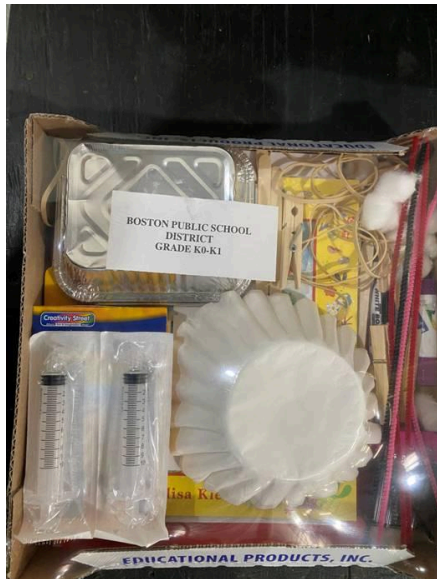
Grade	Title
K0-K1	Max's Dragon Shirt by Rosemary Wells
	Dog's Colorful Day by Emma Dodd
	The Puddle Pail by Elisa Kleven
	The Ugly Vegetables, Paperback
K2	The Great Kapok Tree by Lynne Cherry
1st	Those Shoes by Maribeth Boelts
	A Chair for My Mother by Vera B Williams
2nd	Growing Up Pedro by Matt Tavares
	From Seed to Plant by Gail Gibbons
	Flight of the Honey Bee by Raymond Huber

Curriculum Materials Team:

- **Focus K0/K1:** Marie Enochty
- **Focus K2:** Carmen Lico
- **Focus 1st - 2nd :** Solange Marsan, Ana Vainsenstein
- **Focus Science / STEM:** Molly Peters
- **STEM 3rd - 5th:** Elizabeth Milewski

Materials List by Grade

K0-K1



Item	Qty
Medium Glue Stick	1
Hand Held Manual Pencil Sharpener	1
Copy paper - sheets	30
Dry Erase Marker	4
K0-K1 Grade Book	1
Syringe Kit (hydraulics)	1
Clothes Pins	5
Cotton Balls	10
Popsicle Sticks	10
Rubber Bands	10
Foam Craft Sheets	3
Pipe Cleaners	6
Modeling Clay	1
Aluminum Container	2
Coffee Filters	10
Vegetable Seed - pack	1
Reclosable Food Storage Bags	4
Love Pop Card	1

K2 - Spring Home Kit



Item	Qty
Medium Glue Stick	1
Pencil Sharpener	1
Copy paper sheets	30
Dry Erase Marker	4
Construction Paper - individual pack	1
Washable Watercolor Paint Trays	1
K2 Grade Book	1
Lego Box delivered separately	1
Syringe Kit (hydraulics)	1
Clothes Pins	5
Cotton Balls	10
Popsicle Sticks	10
Rubber Bands	10
Wheels	4
Dowel Rods	10
Foam Craft Sheets	3
Pipe Cleaners	6
Modeling Clay	1
Aluminum Container	2
Coffee Filters	10
Vegetable Seed - pack	1
Reclosable Food Storage Bags	4

1st Grade - Spring Home Kit



Item	Qty
Medium Glue Stick	1
Pencil Sharpener	1
Copy paper sheets	30
Dry Erase Marker	4
1st Grade Book	1
Syringe Kit (hydraulics)	1
Clothes Pins	5
Cotton Balls	10
Popsicle Sticks	10
Rubber Bands	10
Foam Craft Sheets	3
Pipe Cleaners	6
Modeling Clay	1
Aluminum Container	2
Coffee Filters	10
Vegetable Seed - pack	1
Reclosable Food Storage Bags	4

2nd Grade - Spring Home Kit



Item	Qty
Medium Glue Stick	1
Pencil Sharpener	1
Copy paper sheets	30
Dry Erase Marker	4
2nd Grade Book	1
Clothes Pins	5
Cotton Balls	10
Popsicle Sticks	10
Rubber Bands	10
Foam Craft Sheets	3
Pipe Cleaners	6
Modeling Clay	1
Aluminum Container	2
Coffee Filters	10
Vegetable Seed - pack	1
Reclosable Food Storage Bags	4

3rd - 5th Grade - Spring Home Kit



Item	Qty
Binder Clips	4
Cotton ball	4
Popsicle sticks	50
Rubber bands	20
Scissors	1
Foam Craft Sheets	4
Pipe Cleaners	25
Playdough	1
Coffee Filters	1
Ziplock Bag	1
Syringe Kit (hydraulics)	1
Wheels	4
Dowel rods	10
Aluminum Take out Container	1
Vegetable Seed - pack	1

