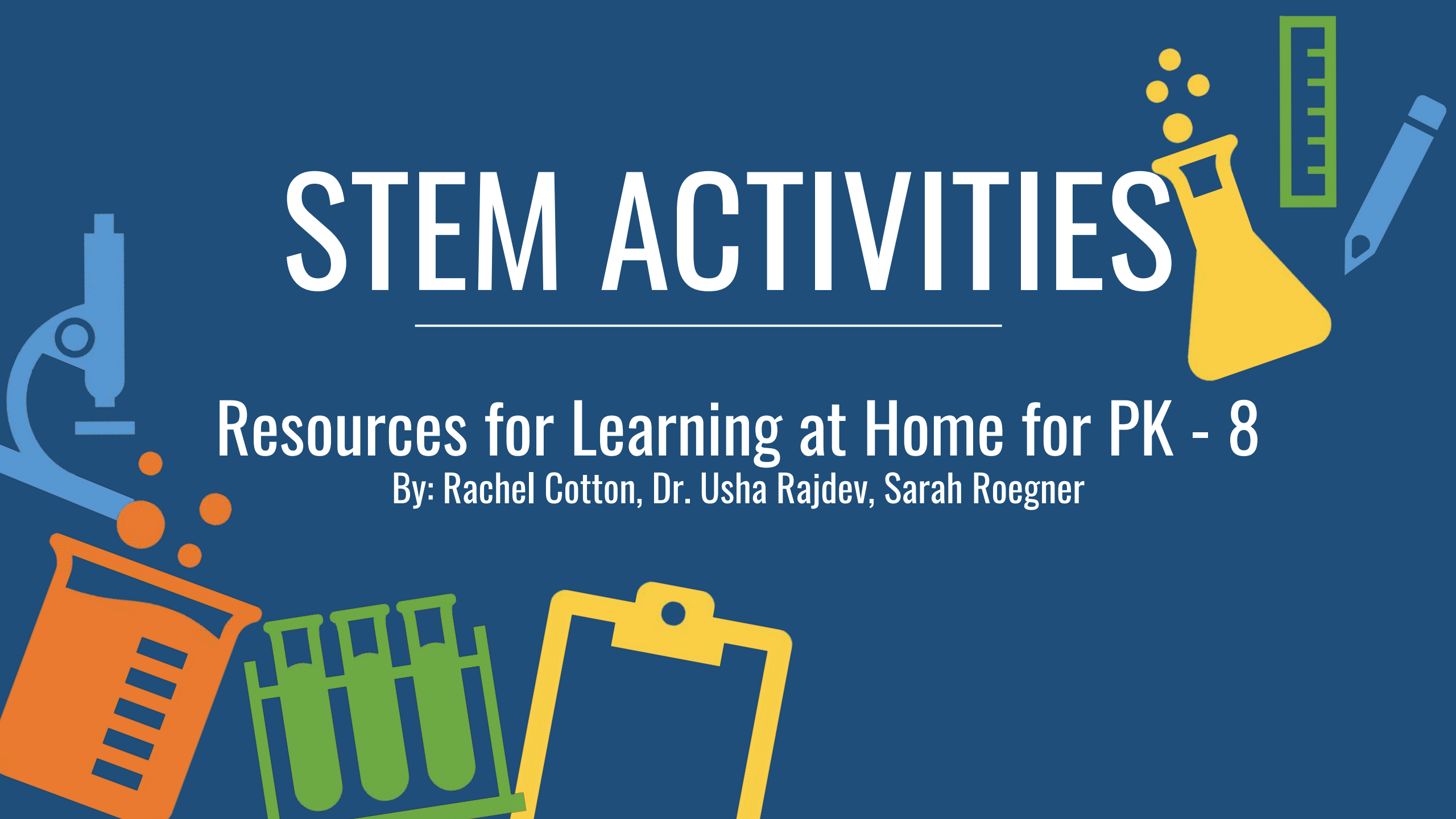


# STEM ACTIVITIES

---

Resources for Learning at Home for PK - 8

By: Rachel Cotton, Dr. Usha Rajdev, Sarah Roegner



# Remember... Safety First!

Before attempting any experiments or hands on activities, make sure you have parent permission and are following all safety instructions! Remember science is not fun if you get hurt because you are not being safe!



# RESOURCES BY GRADE

Click on the parent box to read a letter to parents about the resources. Click on the box with your child's grade to go to resources for that grade level.

Parents

K

1-2

3-4

5-6

7-8




# Parents

Dear Parents and/or Family members:

In an effort to continue teaching and learning under the current circumstances, we recognize the needs for parents, families, and students to conduct a variation of activities to enhance and motivate students learning from the homefront. We are sharing several resources for you to implement, or allow your student to conduct the activities. **Please note some will require adult supervision.**  
**We leave this to your discretion.**

Click on the tab on the right to return to the homepage. Choose the grade level of your student and do the activity. You will also learn about the content knowledge. Do try other grade levels for challenges.

Stay tuned for more activities and projects to follow.



[Return to  
Resources  
by Grade](#)

# Kindergarten:

*Pick Your Plate! A Global Guide to Nutrition is an educational nutrition game that will help each students about building healthy meals while using nutritional guidelines from countries around the world!*

## Websites

### Snacks

<https://www.education.com/activity/kindergarten/snacks/>

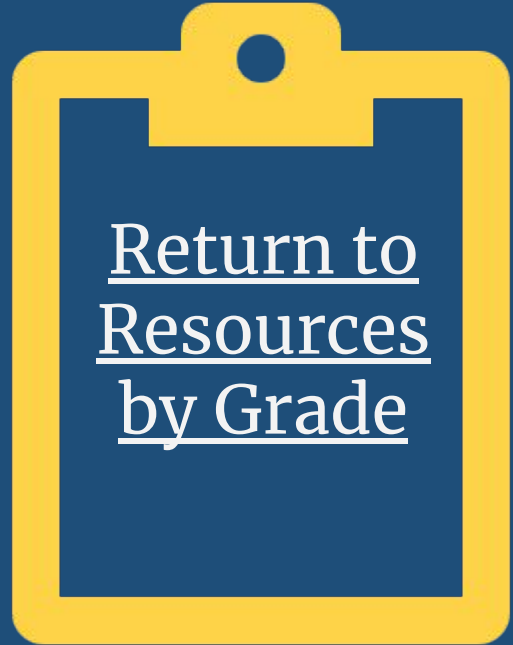
### Songs/videos

- <https://www.youtube.com/watch?v=grfvyh8ogNk>
- [https://www.youtube.com/watch?v=kiv4yVVO\\_fA](https://www.youtube.com/watch?v=kiv4yVVO_fA)
- [https://www.youtube.com/watch?v=i\\_JQwhPKzdl](https://www.youtube.com/watch?v=i_JQwhPKzdl)
- <https://www.youtube.com/watch?v=RE5tvaveVak>
- [https://www.youtube.com/watch?v=nx\\_AyK mzUwQ](https://www.youtube.com/watch?v=nx_AyK mzUwQ)

## Activity

Choose your own healthy snack from what's in the house using the first link on the left.

- Like an engineer, design what your snack will look like on a piece of paper while listening to the songs on the left.
- Make the snack.
- Is your design like the snack you made? Draw another picture to make it look like your completed snack and post it on your fridge.



Return to  
Resources  
by Grade

# First-Second

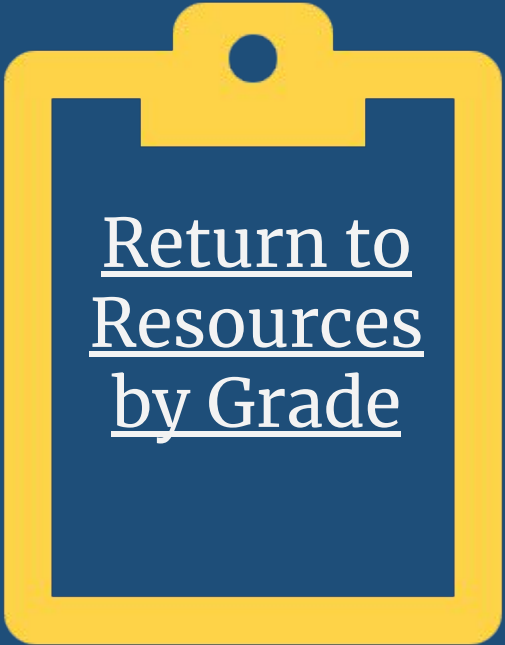
## Websites

- [Project Learning Tree: Activities for Families](#) gives ideas to connect your child to the nature around them!
- The Smithsonian's [Shutterbugs: Wiggle and Stomp Game](#) is a great way to learn about new and interesting animals while also learning movement terms.

## Activity

Agriculture is the Classroom's [Cow-abunga!](#) teaches children about different farm animals.

- Pick an animal to learn more about
- Watch a video/read about that animal
  - [Chicken Video](#)
  - [Cow Video](#)
  - [Horse Video](#)
- Create the animal ([craft](#))
- What did you learn about your animal?
- Think of a fun way to share what you learned with others!



[Return to Resources by Grade](#)

# Third-Fourth

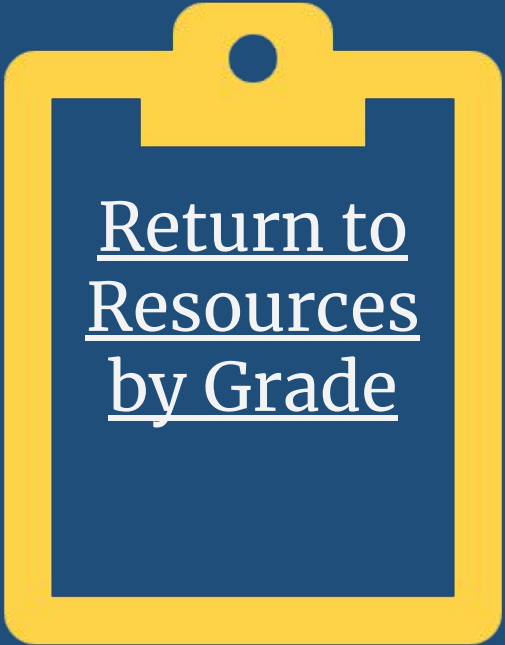
## Websites

- [Project Learning Tree STEM Strategies](#) provides detailed lesson ideas that connects science, technology, engineering, and math concepts.
- Agriculture in the Classroom's [Barnyard Banter](#) has ready-to-go lessons to connect literacy with real-world farming. Math connection with Apple Fractions (page 4) has your student discover fractions in a more tangible way.
- This [Series and Parallel Circuits](#) link has students create their own circuits.

## Activity

Project Learning Tree's [Web of Life](#) activity has students learn about food webs and food chains.

- Watch the videos to determine the differences between [food webs](#) and [food chains](#).
- Students practice with the [online food web](#) through Scholastic. Students create their own food web mobile (directions from the Engineering section).
- Students research their own organism and how it interacts with the ecosystem around it (directions from the Technology section).



[Return to Resources by Grade](#)

# Fifth-Sixth

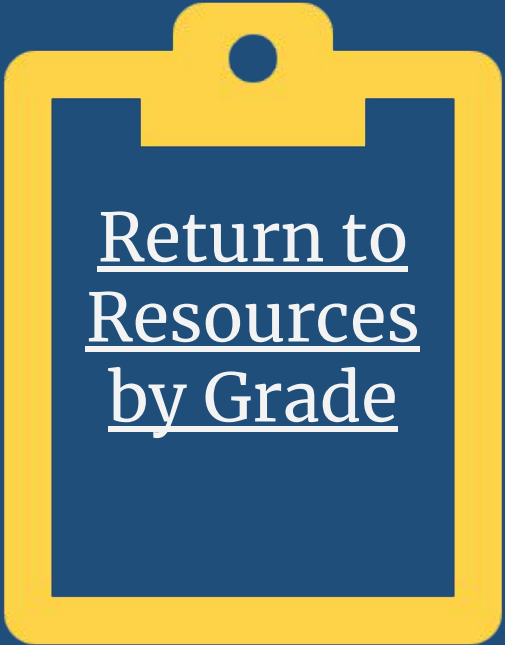
## Websites

- The Smithsonian's [Pick your Plate! A Global Guide to Nutrition](#) Game is a fun, interactive way to encourage healthy eating and learn about the food cultures around the world.
- [CHEM4KIDS](#) is great for any child looking for a deeper understanding of chemistry.
- The Smithsonian's [Disaster Detector](#) Game allows children to become skilled at reading weather tools and also learn how to predict incoming events.

## Activity

Agriculture in the Classroom's Cookbook: [The Garden Chef](#) is a great way to have your student practice reading and interacting with a functional text.

- Pick a section to focus on.
- Read through the recipes.
- Follow the procedures on the lessons that follow the recipe sections.
- Pick a recipe or two to try at home.



[Return to Resources by Grade](#)



# Seventh-Eighth

## Websites

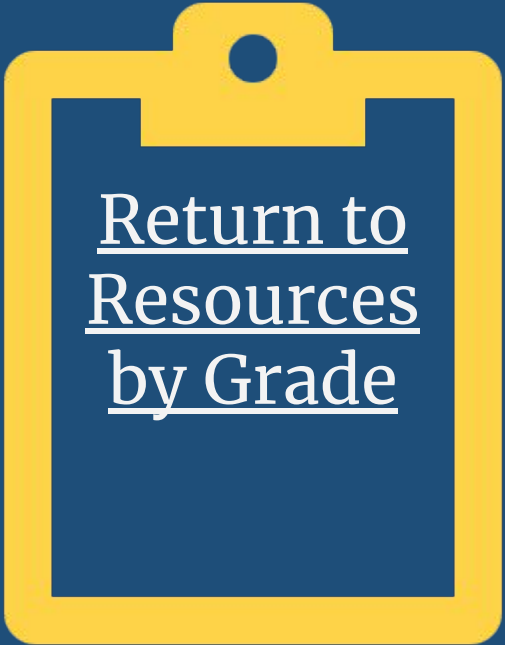
- The Smithsonian's [Pick your Plate! A Global Guide to Nutrition](#) Game is a fun, interactive way to encourage healthy eating and learn about the food cultures around the world.
- [How to Build a Solar Oven](#) uses a few materials to teach about solar energy and make some tasty treats!
- View [Farm Life 360 Videos](#) using your phone or tablet. You can actually manipulate the tractors and farm life with the touch of your finger.

## Activity

Design an edible DNA strand.

- Read [What is DNA?](#) and to get a better understanding.
- Check out BrainPop for the [video](#) as well as challenge activities, related reading, creative coding, and games.
- Design and create your own DNA strands using edible materials. [Example](#)

VA Standard of Learning Connection  
- LS.12 The student will investigate and understand that organisms reproduce and transmit genetic information to new generations; (a) the structure and role of DNA.



[Return to  
Resources  
by Grade](#)