# Distance Learning @ Home Activities incorporating science, technology, engineering, art, and math

Created by: <u>STEAMtastic Teaching</u>



### About STEAM tast ic Teaching

Hello! My name is Emily Sullivan and I am the teacher behind STEAMtastic Teaching.

I have been teaching since 2015, but I've been teaching STEAM to students in grade K-4 since 2016.

ALL of my resources have been taught within my classroom first and adjusted prior to selling them through Teachers Pay Teachers.

I am very excited to provide you with activities I do with my students. I will always encourage you to have fun with your students and while they design/build/create...provide prompting questions such as: What made you design it this way?
What would happen if...
I noticed you redesigned, what made you change your idea?

This gets your students thinking deeper about their creating/problem solving.

Most importantly, have fun and be creative!

## Activities incorporating the different components of STEAM (Grades 3-4)

Science	Technology	Engineering	Art	Math
Scientists want to understand the world around us. Ask 5 questions to learn more about something in nature. Then research one of those questions more deeply.	Complete a coding challenge on Mr.Pearse.com  Click on the tab "learn" then "code.org"	Imagine you only have one leg. Design a prosthetic leg using household items. Test it out! How do you make it comfortable? How would you attach it to your body?	Draw your ideal future city. What areas will keep citizens healthy and happy? What laws would you put in place?	Play some basketball! Count how many baskets you make out of 10. Now create a fraction! What does this fraction tell you?
Create your own experiment using baking soda and vinegar. Make a prediction BEFORE you test.	Complete one of the "offline" coding challenges at this website: <u>Click Here</u>	find your favorite doll or action figure. Design a zipline to help them travel from a height of at least 4 feet.	Make a greeting card using 3-D рорир art.	Help your family with grocery shopping. Determine a budget and select items without going over your budget.
Place a small ball on top of a larger ball and drop them at the same time-watch how energy can transfer!	Design and build a new piece of technology. What problem does it help with?	Design and built a catapult. Test your accuracy and power by knocking over a tower of cups. (don't forget your labels!)	Make a piece of artwork using reflection and rotational symmetry	Help an adult with dinner. Measure the ingredients. What would you do to double the recipe?
Build a window greenhouse and watch your plants grow <u>Click here for setup instructions</u>	Watch one of the videos from Mr.Pearse.com and write about how it made you feel. What does it make you think about?  Click "video" tab then "the future"	Use different materials to protect a water balloon from popping. Go outside and test by dropping it or throwing it against a tree.	Create a new song on <u>Mr.Pearse.com</u> Click on "games" tab then "Song maker"	Measure the length of your hand. Now you have your own personal ruler! Go out and measure 10 different items.
Turn on your water slowly. Brush a plastic comb through your hair 10x. Slowly bring the come close to the water. What do you think is happening?	What is your ideal STEAM job? Take a quiz to find out! <u>Click Here</u>	Design and build a roller coaster from paper, paper plates, and tape. How long can you keep a ping pong ball moving?	Go outside a design a mural out of chalk!	Measure your heartbeat for 10 seconds. Convert to beats per minute. Run around your house and measure again. What is your new heart rate?
., ,			@ST	EAMtastic Teaching

## Activities incorporating the different components of STEAM (Grades K-2)

	<u> </u>	<u>'</u>	· · · · · · · · · · · · · · · · · · ·	<u> </u>
Science	Technology	Engineering	Art	Math
Scientists want to understand the world around us. Ask 5 questions to learn more about something in nature. Write them down.	Complete a coding challenge on <u>Mr.Pearse.com</u> Click on the tab "learn" then "code.org"	Design a paper airplane. Now build it and test it 5 times. Don't forget to record how it does for each test. Now try to improve your airplane using the same paper!	Draw your dream bedroom. Where would you put your bed? Would you have an area to play? What else would be in your room?	Play some jump rope. Can you count by 1s, 2s, 5s, and 10s?
Create your own experiment using baking soda and vinegar. Make a prediction BEFORE you test.	Complete one of the "offline" coding challenges at this website: <u>Click Here</u>	find your favorite doll or action figure. Design a zipline to help them travel from a height of at least 4 feet.	Make a greeting card and send it to someone you miss.	Help your family with grocery shopping. Can you find out what it's going to cost?
Plant a seed! Discuss what plants need to survive! Watch it grow over the next week and record your observations each day!	Design and build a new piece of technology. What problem does it help with?	Design and built a catapult. Test your accuracy and power by knocking over a tower of cups. (don't forget your labels!)	Make a piece of artwork using using only 2 different shapes.	Use a small bag of candies like M&Ms, and organize them. How many ways can you organize your candy before you eat it!
Build a window greenhouse and watch your plants grow Click here for setup instructions	Watch one of the videos from Mr.Pearse.com and write about how it made you feel. What does it make you think about?  Click "video" tab then "the future"	Use different materials to protect a water balloon from popping. Go outside and test by dropping it or throwing it against a tree.	Create a new song on <u>Mr.Pearse.com</u> Click on "games" tab then "Song maker"	Measure the length of your hand. Now you have your own personal ruler! Go out and measure 10 different items.
Turn on your water slowly. Brush a plastic comb through your hair 10x. Slowly bring the come close to the water. What do you think is happening?	What is your ideal STEAM job? Take a quiz to find out! <u>Click Here</u>	Design and build a roller coaster from paper, paper plates, and tape. How long can you keep a ping pong ball moving?	Go outside a design a mural out of chalk! Have someone trace you with chalk and add details to your outline!	Create an obstacle course. Count how long it takes you to complete it! Can you do it faster the second time? Get a family member to try!
			@STE	EAMtastic Teaching

# Credits



Thank you for your purchase!

Created by:

STEATZtastic Teaching

Looking for more engineering creative teaching?

...check out my TPT store (click below) !

STEAM tast ic Teaching







