## STEAM Grades 6-8

Project: We Share Brain Waves

**Summary:** Studies have shown that close friends share much more than favorite colors, clothes, and laughs. Close friends share brain waves too. This STEAM Activity will test the theory in a fun way.

**Essential Question:** Do your experiences you've had with close friends support the research given on close friends sharing brainwaves? Explain at least 3 supporting experiences and tie it back to the research.

## Academic Vocabulary

Brain Waves: rhythmic fluctuations of voltage between parts of the brain resulting in the flow of an electric current

Theory: an idea or set of ideas that is intended to explain facts or events

Catchable: an object that can be caught

Culture: the beliefs, customs, arts, etc., of a particular society, group, place, or time

Crave: to yearn for

	Description of Activity	What should you share with your teacher?
Science	Studies have shown that close friends share much more than favorite colors, clothes, and laughs, but brain waves too. We want to test this theory in a fun way.	
	Items Needed to complete experiment	
	1 close friend	
	3 catchable objects	
	Step 1: Grab a catchable object	
	Step 2: Stand in front of your close friend	
	Step 3: Insert your rules for the game (See the	
	instructions in the "engineering" section, below.)	
	Create a graph to document each round of your test	
Technology	<u>Click Here</u> to watch this video, "How You Affect Other People's Brain Waves"	
Engineering	Engineering is all about designing things, so I want you to design the game. The requirements below will help.	

	How many times will you test you and your friends' compatibility? In what ways will you test? (ex.throwing object while eyes are closed, guessing what's on each other's mind, asking each other's biggest fear and hiding the answer until both of you have responded) See below for more guidelines and insert your guidelines after step 2	
Arts	Read this passage from Newsela.com, " <u>Loneliness</u> <u>Makes Our Brains Crave People."</u>	
Math	Use a Pie Chart to show the below: How many classmates do you have? How many friends do you have that have a different culture than you? How many bestfriends do you have? How many do you consider your close friends? How often was your friend able to mirror you in this experiment?	