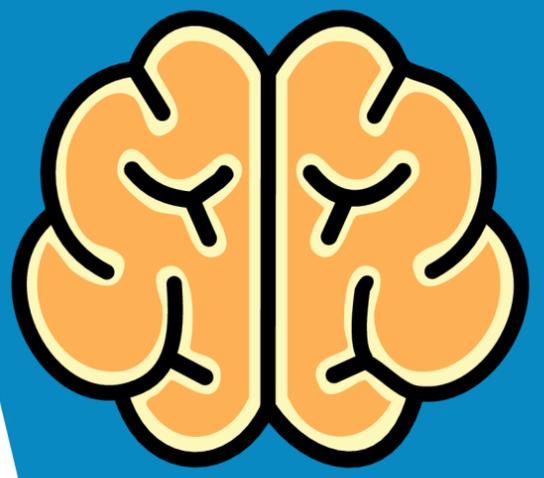


HOW TO BUILD A



Neural Network

With Yarn & a Beach Ball

What You'll Need

A large ball of yarn and a beach ball!

Description of Activity

As a group, students will build a neural network out of yarn and test its strength by throwing a beach ball into the finished network.

Lesson Plan

Prime students for the activity with opening questions and briefly discuss how neurons work and what a neural network is.

Opening Questions

- **What is a neuron?**
- **What is a neural network?**
- **What else does a network remind you of?**
- **What do you think “Neurons that fire together, wire together” means?**
- **What do you think the beach ball represents?**

Activity

- 1. Arrange students in a circle on the floor and explain that they each represent a neuron in the brain.**
- 2. Choose one student to start the activity off and hand them the ball of yarn.**
- 3. Instruct the students to use one hand to hold onto the yarn while tossing the ball of yarn to another student to form a connection.**
- 4. (Optional Modification) You may devise a condition for who they pass it to for more depth (i.e. the student with the yarn can name something they enjoy, and must pass it to someone who raises their hand to signify that they enjoy the same thing).**
- 5. Encourage the students to work collaboratively and pay close attention to gaps in their network, reminding them that the shared goal is to make the net as strong as possible.**



6. Once each student has made a connection, instruct the students to hold their net taut so you can test the strength of their network using the beach ball.



Reflection

Remain in the circle to reflect on the exercise and ask students about what they learned, what they thought of the exercise, and where else strong networks are important (like community).

