



Curiosity Guide #404

Central Nervous System

Accompanies Curious Crew, Season 4, Episode 4 (#404)

Design a Sensory Fidget Toy

STEM Challenge

Description

Create a toy that stimulates at least two different senses!

Materials

- Empty plastic containers, jars, and bottles with lids
- Foam
- Cotton balls
- Rubber balls
- Rubber bands
- Gemstones
- Beads
- Bells
- Pom-pons
- Bubble wrap
- Plastic mesh
- Felt
- Water
- Food coloring
- Scissors
- Hot glue
- Rulers
- Tape

Procedure

1. Use the available materials to design and build a sensory toy.
2. Each toy must stimulate at least two different senses.
3. Build your toy.
4. Ask yourself: Is the toy safe? Is it durable?
5. Redesign your toy as necessary.
6. Share your toy with a friend and ask which senses it stimulates.

My Results

This is a good place to document the materials you used, how you put your toy together, and the changes you made after each trial!

Explanation

Our Central Nervous System is constantly taking in information through our five senses; hearing, seeing, tasting, touching, and smelling, plus movement. Those impulses are sent to our brains to process. Some people, however, have sensory difficulties. The system may not work as it should, which makes processing information more difficult. People with sensory processing disorder, or SPD, need more practice interacting with objects that stimulate different senses. Sensory fidget toys do just that. Fidget toys may be multi-colored, be made of squishy foam, or have attached bells that satisfy a need for some people to have certain senses stimulated. Sensory fidget toys are usually categorized into squishy toys, ones that light up or spin, wind-up toys, tactile, or visual toys.

Think about this: Making a sensory toy is a great way to help stimulate our brains. The human brain weighs in at about 3 pounds and is about the same size as your two fists. It has three main parts. The medulla controls our spinal cord and involuntary functions like our heart rate and breathing. The cerebellum controls our balance. The biggest part is the cerebrum, made up of two hemispheres. The left hemisphere, or side of the brain, controls the right side of the body, and the right side of the brain controls the left side. Here, in the two hemispheres of the cerebrum, the information from our senses gets processed. This is where we think, solve problems, talk, and imagine. Imagine that!

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