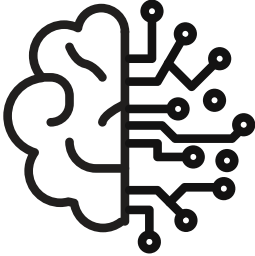


COMMAND CENTRAL JOURNEY THROUGH THE BRAIN & NERVES

FOURTH GRADE



LEARNING OBJECTIVES

- Identify major brain structures and their functions
- Understand neuroplasticity and brain adaptation
- Explain how neurons transmit electrical signals
- Apply scientific method through nerve sensitivity testing
- Create artistic representations of brain concepts
- Understand brain's role in thoughts and feelings

7 WEEK UNIT

NERVOUS SYSTEM &
NEUROPLASTICITY

WEEKLY ACTIVITIES

1. Nervous System Intro: Video, brain structures, neurons
2. Brain Parts: Research and label brain functions
3. Neuroplasticity: How brains change, adapt, and learn
4. Neurographic Art: Meditative line drawing and watercolor
5. Playdough Brain: Create circuit brain showing nerve pathways
6. Nerve Distribution: Test where body senses touch most
7. Universal project: Blood slime creation (take-home)

SKILLS

1. Knowledge building, detailed observation
2. Research, anatomy knowledge, labeling
3. Understanding brain flexibility, growth mindset
4. Art creation, mindfulness, creativity
5. 3D modeling, understanding electrical signals
6. Scientific method, sensory awareness, data recording
7. Creative play, takeaway project

MATERIALS

1. Videos, brain diagrams, labels
2. Brain diagram, colored pencils, research guides
3. Neuroplasticity videos, discussion guides
4. Paper, sharpies, watercolors, paint pens, foil
5. Circuit playdough, LED lights, playdough kit
6. Touch items (cotton, ice), testing guides
7. Starch, glue, red food coloring, sandwich bags

CALIFORNIA STANDARDS

- 4.L.1.a Construct food webs showing energy flow
- 4.PS.3.a Provide evidence that motion is affected by forces
- Math 4.MD.A Know relative sizes of measurement units
- ELA 4.SL.4 Report on topics with relevant details