

Post Activity

Assessment
Cross-curricular

Activity
Music / Math

Big Ideas

50 minutes

Organ systems are components of a larger system (the body) and, as such, work together and effect on another

Organ structures are linked to their functions

Specific Expectations

2.3 Design and build a model to demonstrate how organs or components of body systems in the human body work and interact with other components

3.3 Identify interrelationships between body systems

Description

While doing 5 activities, students will explore how their 5 sense create sensory (information) input for their brain which processes the information and gives sensory output or actions for their body.

Materials

Computer with speakers

<http://onlinetonegenerator.com/hearingtest.html>

paper

pencils

chart paper

markers

diverse smells –

diverse tastes –

small hammers

flashlights or other means to create varying light levels

Safety Notes

Be mindful of students with light and sound sensitivities during those activities. Also food and air-born allergens.

Introduction

1. Students will have learnt about the 5 senses and the sensory input/output system that is our nervous system.
 2. Talk with the students about what types of information our bodies receive every day? What information comes from inside our bodies (hunger, thirst, hot, cold)? What information comes from outside our bodies (light, sound, touch, taste, smell)?
 3. Remind students about the input output relationship we explored in the planetarium show. Ask them if they know of any other ones?
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Action

Exploring Sensory input output relationships in the human body

Group Introduction – 10 min

Students will explore a sensory input output relationship from each of the 5 senses.

There will be one activity done as a class – hearing. The other 4 will be stations the students can explore. They will need to read the instructions, form a hypothesis, do the experiment, record the results and discuss their findings for each station. This can be done on chart paper or on work sheets at the teacher's discretion.

Group hearing test –

Make sure you have a good set of working speakers that the whole class can clearly hear.

Have all the students raise their hands, start the tone player on this web page -

<http://onlinetonegenerator.com/hearingtest.html> -

Have students put their hands down when they can no longer hear the tone. Make note that not everyone hears the same frequencies.

Do the test a second time giving each student a small piece of paper or cue card, have the students note on the card the number shown on the screen when they could no longer hear the tone playing.

Connection to math – have the students add their information to a graph.

Stations – 40 min

The students will have about 10 minutes at each station to explore their different senses and learn how their nervous system relays information.

For each station have the students make a hypothesis or predictions based on what they know. Do the activity or experiment and record the results. Make sure to record the results on chart paper at each station or use a work sheet for each student, as they go from station to station.

Station 1: Muscle reflex

Using a gentle bop, the students will check the reflex in their knees. They will see how high their foot kicks compared to other students. This is a station where having a teacher or other adult helper present would be beneficial.

Station 2 Taste test

Explore the relationship between sweet and sour tasting things and learn how early animals used this to know when it was safe to eat different foods. Have a food with different flavours available for students. Be mindful of food allergies and sensitivities.

Some good examples are here

- Ripe and unripe fruit
- Sour candy
- Sweet candy

The human body's reaction is to not allow sour tastes into our mouths. This is a natural reaction to help protect us. Sour tasting things are often not ripe or are dangerous to eat. Sweet things are often well liked because they are nutritious and have sugars to give us energy.

Station 3 Sniff that smell

Explore different smells and how we react to them and why. The body's reaction to foul smelling things is to vomit. This aids us because we expel the rotten or poisonous item we ingested. Have the students waft the smell and decide if it is something safe to eat or not.

This is the list of possible examples.

- Rotten food
- Fruits
- Candy
- Other foods

Station 4 Pupils react

This station explores how our eyes react to different light levels by adjusting the size of our pupil. The size of our pupil determines how well we see at diverse light levels.

Create a dark space for students to enter. Have them go into the dark room and wait about 5 minutes for their pupils to expand. Have the students make their predictions of what will happen when they get back into the light. Have them note how their ability to see and read in this dark room changes over time. Have them exit the room and watch each other's eyes as they change. Note their observations.