THE NERVOUS SYSTEM – Grade 5

1. What are the three major components of the Nervous system?

2. Match the lobes of the forebrain with their main function

<table>
<thead>
<tr>
<th>Lobe</th>
<th>Function</th>
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<tbody>
<tr>
<td>Parietal Lobe</td>
<td>Vision</td>
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<tr>
<td>Frontal Lobe</td>
<td>Hearing</td>
</tr>
<tr>
<td>Occipital Lobe</td>
<td>Controlling movement and thinking</td>
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<tr>
<td>Temporal Lobe</td>
<td>Sensory processing (e.g., touch)</td>
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</tbody>
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3. What is the name of the special region of our brain that is in charge of speech production (gives us the ability to say words out loud)?

________________________________________________


What did you observe as the rounds became faster? Why do you think this happens?

5. Label the cerebellum and the three parts of the brainstem:
6. a) Draw a neuron in the space below:

b) How many neurons do you estimate are in the human brain? _______________

How many neurons are actually in the brain? ______________

7. Activity: Hand Eye- Coordination

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<tbody>
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<td>Palm up</td>
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<td>Palm down</td>
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What did you think about the difficulty of this exercise from start to finish?

Was there a difference between the two conditions? Why or why not?

8. Activity: The Dress

What colours do you see in the dress? ________________________________

Interview the people in your house- what colours do they see?

________________________________________________________________________

Find a partner and two blunt-ended sticks (chopsticks, unsharpened pencils) – nothing pointy!

1. Ask your partner to close their eyes
2. Take the two sticks and gently touch them on your partner’s arm a few centimetres apart
3. Ask them “Do you feel one stick or two?”
4. Next, use only one stick to touch their arm
5. Ask again “Do you feel one stick or two?”
6. Now, keep repeating this exercise, using one or two sticks at different distances apart on their arm. Keep asking them if they feel one or two sticks. Depending on how close you put the sticks, sometimes they will feel only one stick when you placed two!
7. Repeat this experiment on different parts of their body: leg, back, neck, fingers, hand, etc.

You might notice that if a body part is more sensitive, it will feel two separate sticks, even if you place them close together. Body parts that are not sensitive will feel only one stick if you poke them with two sticks that are close to each other.

Repeat this exercise with as many different distances (close, far apart) on as many body parts as you can. Make observations on which body parts are most sensitive, where your partner is almost always able to guess the right number of sticks!

Image from Science World (https://www.scienceworld.ca/resource/tactile-sensitivity/)