TOPIC 4: ACTIVITY SHEET (LEVEL 2)

Neuroplasticity

Name: _____ Date: _____

Background:

In this experiment you will be exploring the ability of our brains to adapt in response to environmental changes, new experiences, incoming signals, or changes in information arriving through our senses.

The visual distortion goggles used in this experiment alter your vision, changing the angle at which you perceive objects in space. When the goggles are placed, the prism changes the light signals reaching the eye, showing us a different location of the target.

Instructions:

First, try out the visual distortion goggles and observe what happens. Then, as a group, design an experiment that explores neuroplasticity using the goggles.

Follow the prompt in the activity sheet below, writing down your materials, aim, independent and dependent variable, your method and hypothesis.

Then, conduct your experiment. Design a table to collect data, and analyze your results. At the end, reflect on your results and write a conclusion, answering the prompts and questions.

Materials

List the materials used.

- 1 x visual distortion goggles
- _____
- _____
- _____
- _____
- _____

Aim

What is the aim of your experiment? What are you trying to measure? What is your research question?

Independent Variable

The variable being changed or controlled to test its effects on the dependent variable.

Dependent Variable

The variable being tested / measured in the experiment.

Hypothesis

What do you predict will happen? Why?

Method

What method will you use to conduct your research? Write down the step-by-step instructions on how to conduct your research. Ensure that if someone outside your group would read it, they would be able to conduct the research in exactly the same way you did

Results

Design a table to collect your data. You can also show results in a graph and draw it below.

Observations and Conclusions

Write down a summary of your results and answer the questions below.

What did you observe? What does your data tell you? Did the results support your hypothesis? How? What can you conclude from your experiment?

Are your results evidence of neuroplasticity? What areas of the brain might be the most involved in the activities performed by participants? Why do you think it is important that our brains have this plasticity ability?