Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_

Purple **Wave Motion Poster**

**Focus question:** How do we measure and describe waves?

**Directions:** Complete the following steps and CHECK them off as your complete each step.

**Day 1:**

\_\_\_1. Title your poster “How do we measure and describe waves? You will need both sides of your poster, so be sure to use coloring materials that will not bleed through.

\_\_\_2. Below your title, make a hypothesis and label it “hypothesis”.

\_\_\_3. You will need to divide the rest of your poster into two sections; you will want one section to be titled “What do I think”.

\_\_\_- Your second section should be titled “evidence”

|  |  |
| --- | --- |
| How do we Measure and Describe Waves? | |
| Hypothesis: | |
| What do I think | Evidence |

\_\_\_4. You will be working in groups of three (Ms. Murphy will give you your group). Once everyone in your group is ready to move on and complete step 5.

\_\_\_5. On your poster in the “What do I think” section please draw a detailed, labeled picture with a description of three different kinds of waves and how they are measured. You are going to want to include words such as amplitude, wavelength and frequency and label them on your picture.

\_\_\_5b. Raise your hand and wait patiently for Ms. Murphy to give you your slinky. You must demonstrate your three waves using a slinky.

\_\_\_-When you are finished you will need to get Ms. Murphy’s signature

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Day 2:**

\_\_\_6. In the “evidence” section of your poster define the words amplitude, frequency, and wavelength.

\_\_\_7. Raise your hand and ask Ms. Murphy for the “Fundamentals of Waves” article. Follow the directions on the article and complete with your group.

8. Show Ms. Murphy your completed article and get her signature below

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_9. Go to Ms. Murphys blog and watch the Brain Pop video : Waves

Login: Stout 1

Password: Falcon

Take the quiz and record your score here

\_\_\_10. Get the Chromebook your assigned and complete research explaining the three different kinds of waves and identify how amplitude, wavelength and frequency is shown and measured. Any evidence collected should be recorded in the “evidence” section of your poster, be sure to include your source.

**Day 3**

**Part 2: The Summative Task (25)**

\_\_\_1. With the Slinkys model the three different kinds (transverse, surface and longitudinal) of waves for Ms. Murphy (3). Get her signature below

X\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. On the back of your poster I would like you to create an informational poster about the three different kinds of waves. Please include a detailed labeled picture of the three kinds of mechanical waves and include a description explaining how the three waves are different, and how amplitude, wavelength and frequency is shown and measured. When using your evidence please be sure to reference your source.

*Check list*

\_\_\_ detailed colored, labeled picture of the three waves. Include arrows demonstrating the movement of the wave and the molecules (6)

\_\_\_ Informational description for each wave including particle movement and examples (6)

\_\_\_ Evidence with a source supporting all of your claims (6)

\_\_\_ Identify amplitude, frequency, and wavelength in each picture (4)

|  |  |  |
| --- | --- | --- |
| **Transverse Waves**  Picture:  Description:  Source(s): | **Surface Waves**  Picture:  Description:  Source(s): | **Longitudinal Waves**  Picture:  Description:  Source(s): |