

Term 3 Science Assessment Task

Data Analysis: Patterns in the Solar System

Name _____

Class: _____

TASK:

This term we have been studying the Solar System and Earth's place in space, and how to write an effective and interesting information report. It is essential to have an in depth understanding of our Solar System. To demonstrate your knowledge, you will complete a data analysis task where you explain patterns in the solar system.

Your tasks are:

1. You need to organise a set of data related to the eight planets in the solar system. You need to make a table (written or typed) to share this data in a clear and concise manner.

Data you need to collect and organise in a table is:

- a) The distance of each planet from the sun
- b) The length of a day on each planet (using Earth days, hours, minutes etc)
- c) Length of a year on each planet (using Earth days, years etc)
- d) The diameter of each planet

2. You will then answer the following questions about the patterns you can see in your organised data. These questions need to be typed up and handed to your teacher with your name clearly on the page.

- a) What did you notice about the length of the year of the planets in relation to the distance from the sun?
- b) How were the planets spaced?
- c) Which planet had the smallest orbit? Why?
- d) What do you notice about the size (diameter of the planets)?
- e) What other patterns do you notice about the planets in the solar system?

Extension/Optional

3. You will then draw a scaled model and label the planets within the solar system (based on the data in your table). You will be able to construct this model based on the information you have researched for the first task. You will need to do this by hand on a clean sheet of A4 paper which your teacher will give you. It must have your name written on it.

You will be sufficient time to plan, research, write, proofread and complete your Data Analysis Task in class.

All of the work in this task must be done at school. It is not to go home at any stage.

Date Given: _____

Date Due for Data Analysis Task: _____

Please read the attached criteria sheets carefully so that you know what you are being marked on.

Year 5 Term 3 Science Data Analysis Assessment Task

Criteria	A	B	C	D	E
Knowledge / Skills					
<p>Students <u>will construct a table to represent data and describe observations and patterns in the data.</u> ACSIS090 (Skill)</p>	<p>Student has constructed a table that clearly shows all of the required data accurately. It is very easy to read and retrieve data from.</p> <p>Table was presented in a digital format that highly matched the task.</p>	<p>Student constructed a table that included all of the required data in an accurate and detailed format.</p> <p>Table was presented in a digital format that matched the task.</p>	<p>Student constructed a table that is mostly easy to read and it is easy to understand the expected data. All data has been included.</p> <p>Table was neat and may have been hand drawn or presented in a digital format.</p>	<p>Student needed support to complete this task. OR Student constructed a table however some of the required data was missing. OR Student constructed a table however it was difficult to read the data. Table was untidy or not set accurately.</p>	<p>Student could not produce a table to display the required data.</p>
<p>Students will construct a table to represent data and <u>describe observations and patterns in the data.</u> ACSIS090 (Skill)</p>	<p>Student could identify and describe the patterns in their data, and could give accurate and detailed explanations of the patterns in their data.</p>	<p>Student could describe their observations and gave detailed explanations of the patterns in their data.</p>	<p>Student could describe their observations and could give basic explanations of the patterns in their data.</p>	<p>Student needed support to complete this task. OR Student could describe some of their observations, and gave limited explanations of the patterns in their data.</p>	<p>Student could not describe their observations and / or could not explain the patterns in their data.</p>
Comments:				<p>Overall Grade For ACSIS090</p>	

ACSIS090 Elaborations

- constructing tables, graphs and other graphic organisers to show trends in data
- identifying patterns in data and developing explanations that fit these patterns
- identifying similarities and differences in qualitative data in order to group items or materials

