

Earth in space

Name & Set

1 (a) In terms of the movement of a planet, explain what is meant by a *day* and a *year*.

(i) a day: _____

_____ [2]

(ii) a year: _____

_____ [2]

Draw a diagram in the space below to illustrate your answer to (ii).

(b) Arrange the following in **increasing** order of size starting with the smallest. Give a brief description or definition of each one.

| | | | | |
|--------|------|--------|--------------|------|
| GALAXY | MOON | PLANET | SOLAR SYSTEM | STAR |
|--------|------|--------|--------------|------|

| | Name | Description |
|---|------|-------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

(c) What is the force that causes a planet to orbit a star? _____ [1]

2 Some information about planets in the Solar system is given in the table.

| <i>Planet</i> | <i>Length of day</i> | <i>Length of year (in earth days)</i> |
|---------------|----------------------|---|
| Earth | 24 hours | 365 |
| Mars | 24 hours 40 min. | 686 |
| Venus | 2808 hours | 225 |
| X | 10 hours | 10753 |
| Y | 4224 hours | 88 |

(a) In terms of the movement of a planet, explain what is meant by

(i) a day _____
 _____ [2]

(ii) a year _____
 _____ [2]

(b) Which of the planets **X** or **Y**, would you expect to be closest to the Sun? Explain your answer.

 _____ [3]

(c) On each planet, a day is divided into so many hours of darkness, and so many hours of light. Explain why in summer in Britain it is light for more than 12 hours each day, whereas in winter it is light for less than 12 hours each day.

 _____ [3]

(d) Some students made a list of the object they observed in the night sky. They have not completed the entire table. Use the words 'YES' or 'NO' to complete the table (The information on artificial satellites has been done for you). [3]

| <i>Object</i> | <i>Creates its own light</i> | <i>Reflects the Sun's light</i> | <i>Orbits the Earth</i> |
|----------------------|------------------------------|---------------------------------|-------------------------|
| Artificial Satellite | No | Yes | Yes |
| Moon | | | |
| Star | | | |
| Planet | | | |