| Name: | Class: | Date given: |
|---|---|---|
| | | Date due in: |

# The **Solar System**

| **Planet** | **Diameter** (km) | **Distance from Sun** (million km) | **Temperature** (°c) | **Composition** | **Number of moons** | **Gravity** (compared to Earth) |
|---|---|---|---|---|---|---|
| Mercury | 4 879 | 58 | -180 to 430 | Rock / metal | 0 | 0.38 |
| Venus | 12 104 | 108 | 465 | Rock / metal | 0 | 0.90 |
| Earth | 12 756 | 150 | -89 to 58 | Rock / metal | 1 | 1.00 |
| Mars | 6 787 | 228 | -82 to 0 | Rock / metal | 2 | 0.38 |
| Jupiter | 142 800 | 778 | -150 | Gas giant | 63 | 2.30 |
| Saturn | 120 660 | 1427 | -170 | Gas giant | 82 | 1.16 |
| Uranus | 51 118 | 2871 | -200 | Gas / ice | 27 | 1.17 |
| Neptune | 49 528 | 4498 | -210 | Gas / ice | 13 | 1.77 |

Use the information given in the table above to answer the questions below.
You may find it useful to sketch graphs of some of the data to observe any correlation or patterns.

1. How many planets have known satellites (moons) orbiting them?

_____

2. Which planet is the largest?

_____

3. Which planet has the most satellites (moons)?

_____

4. Suggest an explanation to your answer for question 3.

_____

_____

5. List the planets in order of size; smallest to largest.

_____

_____

6. Which planet has the greatest range of temperature?

_____

7. Which planet has the coldest temperature?

_____

8. Is there any correlation between the distance from the Sun and the average temperature of the planet?

_____

_____

9. Which planet has the highest gravity compared to Earth?

_____

_____

10. Is there any correlation between the diameter of a planet and its gravitational pull?

_____

_____

**Learning Outcomes** (tick if achieved)

| | |
|---|---|
| I can understand and use information presented in a scientific table | |

# The Solar System **Answers**

1. How many planets have known satellites (moons) orbiting them?

   **6 planets**

2. Which planet is the largest?

   **Jupiter**

3. Which planet has the most satellites (moons)?

   **Saturn**

4. Suggest an explanation to your answer for question 3.

   **The greater the mass of a planet, the greater its gravitational pull; therefore, it can attract more moons.**

5. List the planets in order of size: smallest to largest.

   **Mercury, Mars, Venus, Earth, Neptune, Uranus, Saturn, Jupiter**

6. Which planet has the greatest range of temperature?

   **Mercury – range of 610°C**

7. Which planet has the coldest temperature?

   **Neptune, at -210°C**

8. Is there any correlation between the distance from the Sun and the average temperature of the planet?

   **Overall, there is a negative correlation – the greater the distance, the colder the average temperature.**

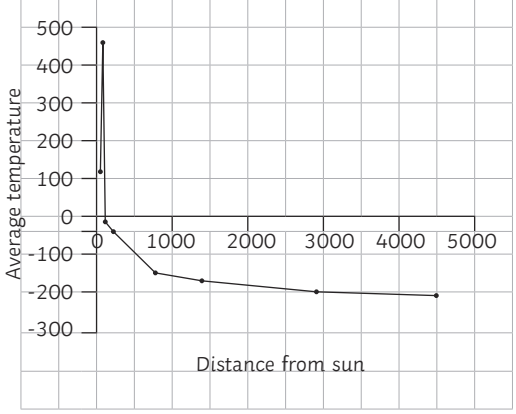
9. Which planet has the highest gravity compared to Earth?

   **Jupiter**

10. Is there any correlation between the diameter of a planet and its gravitational pull?

    **Overall, there is a positive correlation – the greater the diameter, the greater the relative gravity.**

Graph linked to question 8:




Graph linked to question 10: