**S2 Science – Dead Earth Unit – Conditions on Other Planets/Moons**

**\*\* COPY THE FOLLOWING NOTE INTO YOUR JOTTER THEN, WITH A PARTNER, COMPLETE THE FOLLOWING RESEARCH TASKS USING SUITABLE WEBSITES TO HELP YOU \*\***

Conditions for Life

For life to exist on Earth, and elsewhere in the universe, there must be –

* A source of energy (e.g. sunlight, volcanic thermal vent, etc)
* The correct chemical elements (e.g. carbon, nitrogen, oxygen, etc)
* Water in liquid form (usually between 0°C to 100°C, but can still be liquid in hotter or colder environments if other conditions allow)

If these conditions exist on other planets or moons, it may be possible for life to exist, even if it is only tiny, simple, single-celled microbes.

Research tasks (To be completed in your jotter. You should work with a partner.) –

1. Find the name of a moon orbiting another planet in our solar system and give the name of the planet it orbits.
2. For your chosen moon find out –
   1. The distance from the Sun to the planet the moon orbits
   2. The average surface temperature on the Moon in °C
   3. If the moon has been examined by a space probe, give the name of the mission and its date.
   4. The composition of the moon’s atmosphere (if it has one)
   5. The composition of the moon itself
   6. The elements present in the materials from which the moon is made
   7. Whether or not there are signs of water on the moon
3. Using your findings from task 2, decide whether there could be life on your moon. You should try to explain your decision.