**Year 10 Earth and Space Science Week 2 and 3**

**Questions:**

* 1. In your own words, briefly explain how our solar system was formed.
* solar system began formation approx. 4.6 billion years ago as a nebula
* nebula compressed in on itself
* Intense pressure caused nuclear fusion
* 99% of gas and dust made Sun
* Left over bits clumped together due to gravity.
* Collision of clumps led to planets and dwarf planets being formed.
	1. Explain why our Sun will not become a black hole. Use a flow diagram to assist your explanation.

Our sun does not have enough mass to become a black hole – black holes require 3 Solar Masses and the stars that produce them need to start with greater than 8 solar masses



* 1. What is nuclear fusion and why is it important to human life?

Nuclear Fusion is the process where the collision of two small nuclei produce a larger nuclei and energy.

The process is vital to all food chains on earth as it provides energy to producers (plants) which start all food chains and food webs (including)

* 1. What is the ozone layer and how does it protect us?

The ozone layer is comprised of 3 oxygen atoms (O3) that is chemically bonded. The ozone layer in our atmosphere absorbs harmful UV radiation which prevents it from reaching Earth.

* 1. Despite our atmosphere, some UV radiation makes it to Earth. What are some of the negative consequences of too much UV exposure?
* Eye damage
* Sunburn
* Aging skin
* Skin Cancer
	1. How can we protect ourselves from too much UV exposure?
* Slip – On a shirt
* Slop – On some sunscreen
* Slap – On a hat
* Seek – Adequate Shade
* Slide – Slide on some Sunglasses