**THE UNIVERSE WORKSHEET**

1. What is astronomy?
2. What 2 things does the universe consist of?
3. What is space better known as?
4. What is the Milky Way? What is it made of?
5. What is a “solar system”? How many are there?
6. What are large collections of matter that emit huge amounts of energy?
7. Define “constellation”.
8. What is the key difference between a planet and a moon?
9. What do satellites do?
10. What is a comet?
11. What is an asteroid?
12. What is the difference between meteors, meteoroids, and meteorites?
13. There are two main types of movements that planets make. What are they?
14. Sketch a diagram of the Earth’s rotation.
15. What do we “get” because of the Earth’s rotation?
16. How often does the Earth rotate?
17. What is the Earth’s revolution?
18. How long does it take for the Earth to make one complete revolution? What do we “do” as a result of this?
19. What causes seasons to happen?

THE ORIGIN OF THE UNIVERSE

1. Where is our solar system located?
2. How old is the Milky Way?
3. How many galaxies are there in the universe?
4. What is cosmology?
5. Theory #1 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   * In ancient times people believed that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They saw things moving in the sky and assumed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* + **PTOLEMY** was a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ who first wrote about the “**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.** He also believed that the stars were only slightly farther away from Earth than the moon, sun and other planets.

1. Theory #2 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* In 1500 AD, **COPERNICUS** suggested that the solar system \_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* It was not until the 1600’s when **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** used the first \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, that people began to accept that the \_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Theory #3 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Scientists can prove that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!
* This means they must have once been \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_… and before that they must have been \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This mass would have been under extreme \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The **BIG BANG** is sometimes called “**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**”, they estimate it was between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ years ago. Ever since then the universe has been \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!!!

1. Describe the differences between the two main types of telescopes.
2. Where are the biggest reflecting telescopes found? Where are they located? Why?
3. What is the “Hubble”? How long has it been active?