**Astronomy Booklet Guidelines**

PAGES REQUIRED CONTENT

**1st** (front) = **Creative Colored Cover** with your name

**2nd** = **The Universe**- **Description** or **drawing** **with captions** of how the universe formed – **Bing Bang Theory** *(p. 720)*

Draw a **diagram** showing where we are in the **Milky Way Galaxy**. (*p. 716, fig. 17*)

Explain **Hubble’s Law**.

What is **red shift?** (*p. 719*)

**3rd**= **Solar System- Description** or **drawing with captions** of formation of the solar system- **Nebular Theory** (*p. 647*)

 **Diagram** of the planets in order from Mercury to Neptune. *(p. 646)*

**4th** = **Planetary Motion**- List and explain of **Kepler’s 3 Laws** (p. 618 and notes)

 Definitions for ***Precession*** *(p. 625)****, Barycenter****,* ***Nutation****,* ***Rotation****, &* ***Revolution***.

**5th** & **6th** = **Earth Motions**- (*2 page drawing, minimum 3 colors*)

 -Earth’s tilted axis & equator - equinoxes & solstices (*dates* ***Mar 21****,* ***June 21****,* ***Sept 21****, &* ***Dec 21***)

 -4 seasons labeled (Northern and Southern hemispheres) - the Sun & directional arrows of Earth’s orbit

**7th** = **Solar radiation**- Explain how energy is created through **Nuclear Fusion** (*p. 689*)

 What is **fission?** Give an example.

 Give examples of **electromagnetic waves.** Be sure to include which types are harmful.

**8TH** = **The Sun -** Explain how the sun warms the earth (*seasons & latitudinal differences, p. 589*)

 **Description** or **drawing with captions** of how the **ozone layer** is formed.

 Explain how it makes life possible on Earth- **photosynthesis** (*p. 433*)

 Explain how the sun influences the **food chain.** (Be sure to include **producers** and **consumers**).

**9th The Moon/Tides-** Explain what makes the **tides**. *(p. 458)*

 Draw the **phases** of the **moon**. *(p. 626)*

 How long does it take for the moon to make a complete revolution around the Earth?