**Cosmology Worksheet** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Match** the term with its definition:
2. \_\_\_\_\_\_ Star A. Ice chunk orbiting a star
3. \_\_\_\_\_\_ Quasar B. Collection of stars held together by gravity, orbiting a supermassive black hole.
4. \_\_\_\_\_\_ Galaxy C. Huge collection of hydrogen gas and dust
5. \_\_\_\_\_\_ Dark Matter D. Large spherical body orbiting a star
6. \_\_\_\_\_\_ Black Holes E. Large spherical body NOT orbiting a star, travelling alone through interstellar space.
7. \_\_\_\_\_\_ Planets F. Large spherical body of plasma, fusing hydrogen into helium, releasing energy.
8. \_\_\_\_\_\_ Nebula G. A point of infinite mass in an infinitely small volume.
9. \_\_\_\_\_\_ Comets H. A larger, older point of infinite mass in an infinitely small volume, which ejects energy.
10. **Outline** the three components that make up the Universe.
11. **a) Outline** what the Big Bang Theory is.
12. **Outline** the two main pieces of evidence that support the Big Bang Theory.
13. How old is the Universe? **Describe** how time and space are related in the Universe.
14. **Explain** the three possible geometry models of the Universe. Include gravity and dark energy in your explanation.

1. **Explain** the history and future of the Universe in your own words.

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| **Self** | **Level** | **Level descriptor Criterion A: Knowing and understanding** |
|  | 0 | The student **does not** reach a standard described by any of the descriptors below. |
|  | 1-2 | * **state** scientific knowledge * apply scientific knowledge and understanding to **suggest solutions** to problems set in **familiar situations** * **interpret** information to make **judgments** |
|  | 3-4 | * **outline** scientific knowledge * apply scientific knowledge and understanding to **solve problems** set in **familiar situations** * **interpret** information to make **scientifically supported judgments** |
|  | 5-6 | * **describe** scientific knowledge * apply scientific knowledge and understanding to **solve problems** set in **familiar situations** and **suggest solutions** to problems set in **unfamiliar situations** * **analyse** information to make **scientifically supported judgments** |
|  | 7-8 | * **explain** scientific knowledge * apply scientific knowledge and understanding to **solve problems** set in **familiar and** **unfamiliar situations** * **analyse** and **evaluate** information to make **scientifically supported judgments** |