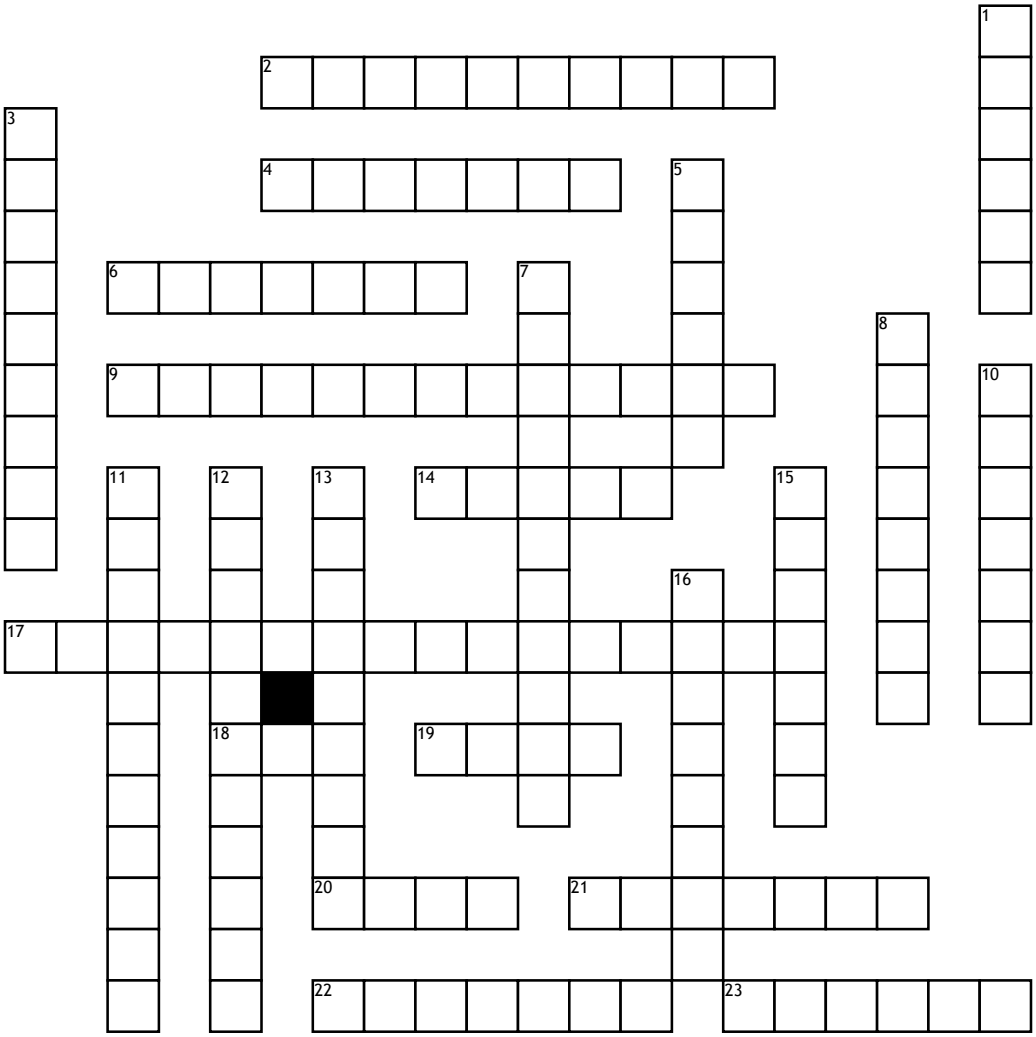
Name: _____ Date: _____ Period: _____

Space



Across

2. Scientist who studies celestial objects, space and the physical universe as a whole.

4. The sudden expansion of dense matter that marked the beginning of the Universe 13.8 billion years ago, according to current theory.

6. A measure of the consistency of an object, found by dividing the mass by the volume

9. The process of forcing together the nuclei of atoms.

14. A furnace or shop where metal is worked and turned into new materials. (verb) To shape metals under heat and/or pressure, or (colloquially) to form one element from another under the intense heat and pressure inside stars.

17. Any object that exists beyond or comes from outside of Earth.

18. The familiar term given to the star nearest to Earth. It resides 150 million kilometers from Earth. In a sense, however, every star is a sun somewhere.

19. A huge ball of gas, with its heat generated by nuclear fusion. Stars are held together by the force of gravity.

20. The tiny particles that make up all matter. Each atom consists of a nucleus surrounded by electrons.

21. The attraction between any two objects with mass. The more mass there is, the more gravity.

22. A subatomic particle with mass but no electrical charge.

23. A subatomic particle with one positive charge. The number of protons in a nucleus determines an element's atomic number.

Down

1. A system of stars, planets, and dust formed by gravitational attraction.

3. The distance light travels in a year, about 9.48 trillion kilometers (almost 6 trillion miles). To get some idea of this length, imagine a rope long enough to wrap around the Earth. It would be a little over 40,000 kilometers (24,900 miles) long. Lay it out straight. Now lay another 236 million more that are the same length, end-to-end, right after the first. The total distance they now span would equal one light- year.

5. The collision of two or more atomic nuclei, which forms a different type of nucleus

7. An extremely compact star, usually the leftover remains from a supernova. This stellar remnant consists primarily of neutrons.

8. An old star in the last phase of life, with a relatively low surface temperature. The star greatly expands and often appears reddish.

10. A substance consisting of all one type of atom. Each element is characterized by a specific number of protons in its nucleus

11. The central portion of an atom, containing protons and neutrons.

12. A planetary system that includes our sun, and the eight planets, moons, dust and other rocky objects orbiting around it.

13. An aged, exploding star.

15. The central portion of an atom, containing protons and neutrons.

16. The disclike, spiral galaxy that contains Earth and our solar system. The Milky Way is about 100,000 light-years across.

Word Bank

forge	Big Bang	Milky Way	Super nova	Protogalaxy	Neutron star
Sun	light-year	extraterrestrial	gravity	neutron	galaxy
atom	fusion	astronomer	density	Star	Nucleus
Red giant	Nuclear fusion	solar system	element	Proton	