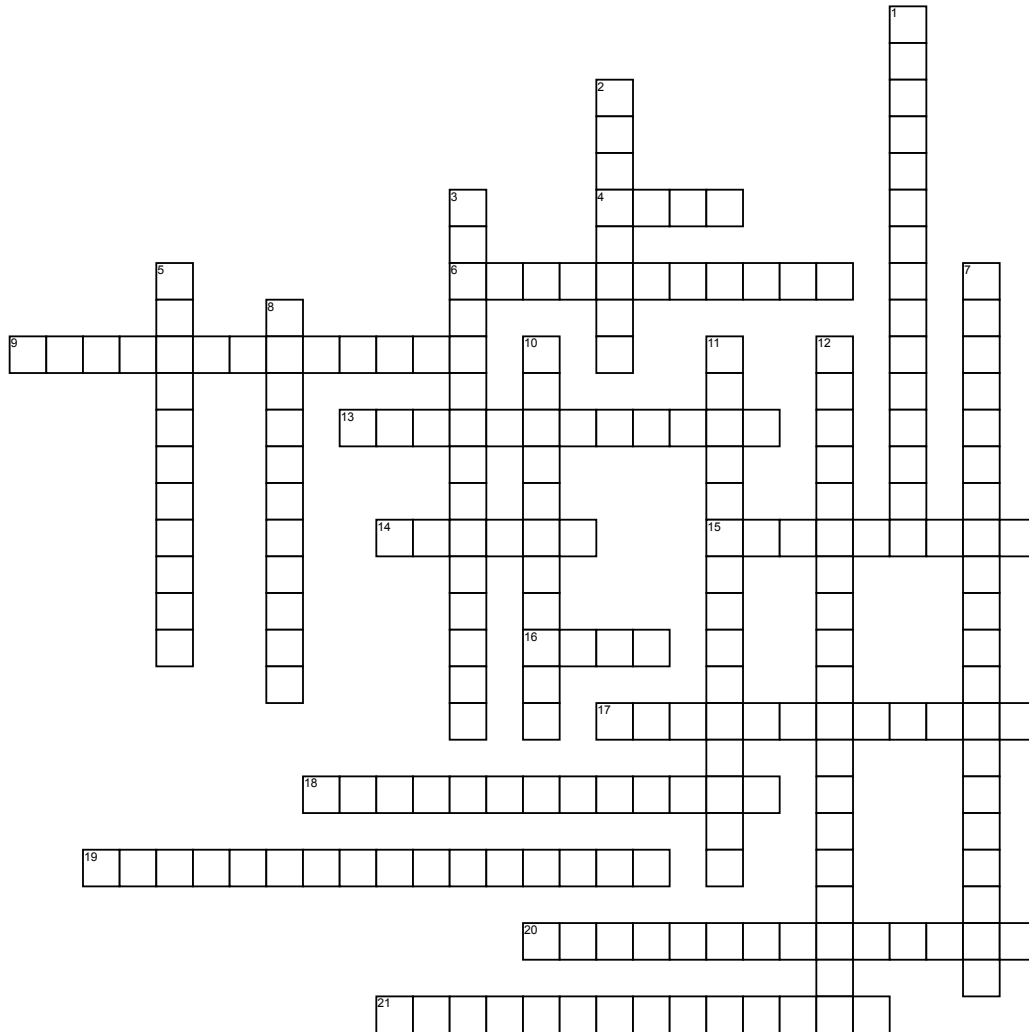


3rd Six Weeks Astronomy Vocabulary



Across

4. an astronomical object consisting of a luminous spheroid of plasma held together by its own gravity that produces light energy through nuclear fusion in its core
6. radiation from the surface of the Sun, which is the portion of the Sun we see directly
9. layer of the Sun between the core and the convection zone where energy from nuclear fusion radiates from the core
13. the recurring increase and decrease in the number of sunspots over a period averaging about eleven years
14. the outermost region of the Sun's atmosphere still visible during a total solar eclipse that varies in size depending on the Sun's magnetic field and the solar cycle
15. the continuous flow of charged particles (ions, electrons, and neutrons) that comes from the Sun in every direction
16. the hottest zone of the Sun where nuclear fusion takes place to produce the Sun's energy
17. thin orange-red gaseous layer just above the photosphere

18. process that occurs in the Sun's core producing all of its energy in which the nuclei of atoms are joined together to create new elements (for example two hydrogen atoms fuse to form helium)
19. planets do not move with constant speed along their orbits, they move fastest when closest to their central star (perihelion) and slowest when they are farthest (aphelion)
20. When the nucleus of an atom breaks apart (or is broken apart) into smaller pieces
21. areas of the Sun where energy is being transferred by currents of hot material rising inside the Sun and cooler material sinking towards the core

Down

1. the period for a planet to orbit the Sun increases rapidly with the radius of its orbit
2. planet-sized areas of the Sun that appear darker because they are much cooler than normal temperatures on the Sun
3. each planet's orbit about the Sun is an ellipse
5. the grainy appearance of the Sun's photosphere caused by convective currents in the plasma

7. the Sun does not rotate at the same rate throughout, rather, it rotates faster at the equator and slower at the poles
8. Tremendous explosions on the surface of the Sun in which material is heated to millions of degrees in minutes and explodes from the surface of the Sun
10. a large, bright, gaseous feature extending outward from the Sun's surface, often in a loop shape, anchored to the Sun's surface
11. the study of the propagation of wave oscillations in the Sun
12. an event in which a large cloud of energetic and highly magnetized plasma erupts from the solar corona into space, causing radio and magnetic disturbances on the Earth as well as satellites and other spacecraft

Word Bank

nuclear fission	solar wind	prominences	sunspots	Keplers First Law
convection zone	star	sunspot cycle	nuclear fusion	helioseismology
Radiation zone	chromosphere	coronal mass ejection	solar flares	Keplers Second Law
Photosphere	granulation	corona	differential rotation	Core
Keplers Third Law				