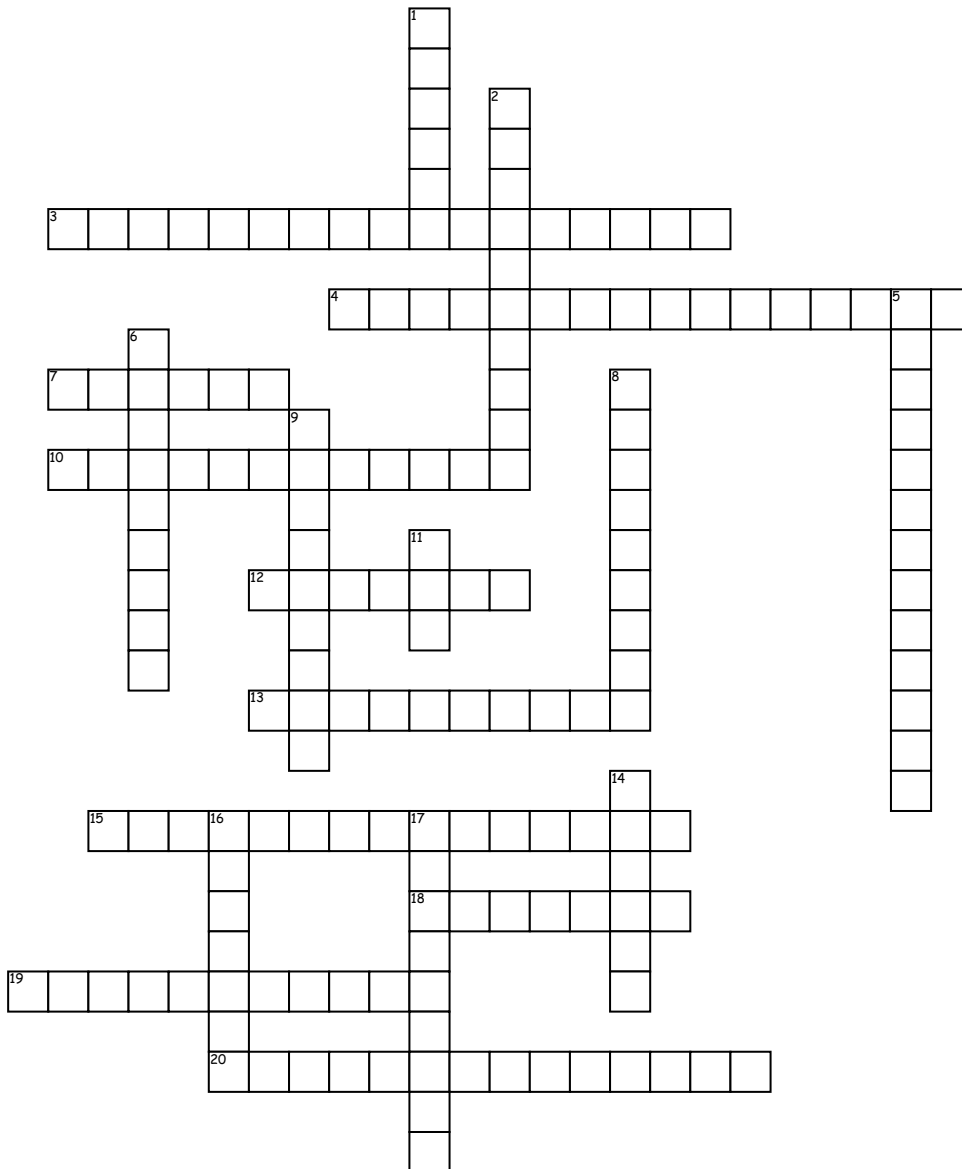


# Astronomy



**Across**

- 3. a scale for measuring the actual brightness of a celestial object without accounting for the distance of the object. measures how bright an object would appear if it were 10 parsecs (33 light years) away from earth.
- 4. a term used to describe anything that does not originate on earth.
- 7. a large grouping of stars. they are found in a variety of sizes and shapes.
- 10. the invisible boundary around a black hole past which nothing can escape the gravitational pull- not even light.
- 12. the theory that suggests that the universe was formed from a single point in space during a cataclysmic explosion about 13.7 billion years ago.
- 13. a term used to describe matter in the universe that cannot be seen, but can be detected by its gravitational effects on other bodies.

- 15. an imaginary sphere around the earth on which the stars and planets appear to be positioned.
- 18. a mutual physical force of nature that causes two bodies to attract each other.
- 19. a celestial body orbiting the sun that is massive enough to be rounded by its own gravity but has not cleared its neighboring region of planetesimals and is not a satellite.
- 20. the speed required for an object to escape the gravitational pull of a planet or other body.

**Down**

- 1. the outer part of the sun's atmosphere. visible from earth during total solar eclipses.
- 2. the angle between the sun and a planet, with earth as the reference point.
- 5. a disk of gas that accumulates around a center of gravitational attraction, like a white dwarf, neutron star, or black hole. as the gas spirals in, it becomes hot and emits light or even x-rays.

- 6. indicates that an object is moving toward the observer. the larger the \_\_\_\_\_, the faster the object is moving.
- 8. a faint red star that appears to change in brightness due to explosions on its surface.
- 9. atomic nuclei (mostly protons) that are observed to strike the earth's atmosphere with extremely high amounts of energy.
- 11. a unit of measure of atmospheric pressure.
- 14. a bowl-shaped depression formed by the impact of an asteroid or meteoroid.
- 16. when one celestial body passes into the shadow of another.
- 17. an astronomical unit of measure equal to the distance light travels in a year, approximately 5.8 trillion miles