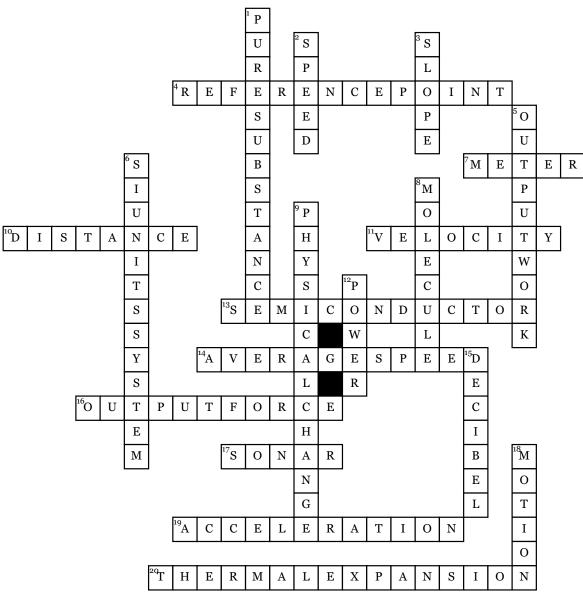
## Physical science



## <u>Across</u>

**4.** a place or object used for comparison to determine if an object is in motion **7.** the basic SI unit for length; equal to about 1.1 yards

10. how much ground is covered by a moving object from start to finish
11. speed in a given direction; distance divided by time along with a stated direction
13. A material which conducts current under certain conditions (Ex: silicon used in computer chips)

**14.** the overall rate of speed at which an object moves at a non-constant rate; total distance divided by total time = average speed

**16.** the force exerted on an object by the MACHINE

**17.** a system that uses reflected sound waves to detect and locate objects under water

**19.** the rate at which velocity changes; increasing speed, decreasing speed, or changing direction; (final speed minus initial speed) divided by time = acceleration **20.** the expansion of matter when it is heated

## **Down**

 a sample of matter with both definite and constant composition with distinct chemical properties; recipe does not change
 the distance an object travels per unit of time; speed = distance divided by time
 the steepness of a line on a graph, equal to its vertical change divided by its horizontal change; slope = rise divided by run **5.** the output force times the output distance

**6.** System International; measurement system used by scientists worldwide to help guarantee clear communication; commonly known as the metric system

**8.** a neutral particle made of two or more atoms joined in a chemical bond

**9.** a change in a substance that does not change its identity (Ex: sand on a beach made into a castle)

**12.** the rate at which work is done; power= work divided by time

**15.** a unit used to compare the loudness of different sounds

**18.** the state in which one object's distance from another object is changing