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## Physical science



## Across

4. a place or object used for comparison to determine if an object is in motion
5. the basic SI unit for length; equal to about 1.1 yards
6. how much ground is covered by a moving object from start to finish
7. 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)
8. the overall rate of speed at which an object moves at a non-constant rate; total distance divided by total time = average speed
9. the force exerted on an object by the MACHINE
10. a system that uses reflected sound waves to detect and locate objects under water
11. 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

1. a sample of matter with both definite and constant composition with distinct chemical properties; recipe does not change 2. the distance an object travels per unit of time; speed = distance divided by time 3. the steepness of a line on a graph, equal to its vertical change divided by its horizontal change; slope = rise divided by run
2. the output force times the output distance
3. System International; measurement system used by scientists worldwide to help guarantee clear communication; commonly known as the metric system
4. 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)
5. the rate at which work is done; power = work divided by time
6. a unit used to compare the loudness of different sounds
7. the state in which one object's distance from another object is changing
