

GLOSSARY

Ablation: The removal of the surface of a re-entering body by vaporisation. The process of ablation prevents the interior of the meteor from being heated but also removes a large amount of the meteor's mass.

Accretion: Process of growth due to gradual build-up of material. In astrophysics this is due to gravity attracting more matter.

Amino acids: Molecules made of an amine and carboxylic acid. They can be combined into long branching chains to form proteins which are necessary for life. There are 20 different amino acids which are used to build all life as we know it.

Angle: The amount of turn between two lines that meet at a common point (vertex)
Predict: Making an educated guess about an outcome.

Asteroid: Large rocks that have accreted together over millennia but never became large enough to form into a planet.

Bolide: An extremely bright meteor or fireball that is the result of a large meteoroid entering the atmosphere.

Catapult: A machine for hurling objects.

Chondrules: Spherical grains that formed during the early accretion of the solar system and are the building blocks of the solar system. Chondrules formed by the crystallisation of molten droplets and accreted together to form asteroids and planets.

Controlled: Factors that are kept the same in an experiment so they do not influence results so the test is 'fair'. Examples are duration of experiment, type of plant, soil used, water given, place of light exposure, measuring instruments used.

Comet: small clumps of dust and ice with eccentric orbits.

Constellation: A constellation is a defined region of the celestial sphere (night sky)

that can be interpreted to form a shape when viewed from the Earth. They are often constructed like a dot-to-dot picture in the stars. Stars within constellations are not actually related, as they are at varying distances from the Earth, but are useful for identifying regions of the night sky.

Crater: A depression or cavity on the Earth's surface caused by the impact of a celestial body.

Density: Mass per unit volume of a substance where density equals mass divided by volume. Indicates how tightly matter is packed in a substance.

Dependant: Responds to changes in the independent variable and changes in its value are observed in an experiment. Example is amount of plant growth in cm

DNA: Deoxyribonucleic acid. These molecules contain the genetic code necessary for the construction and function of all known forms of life.

Dwarf planet: Smaller than normal planets and orbit the sun with objects at a similar distance from the sun. Planets can clear their orbital path of other objects.

Estimate: Roughly calculate or judge the value

Fireball: Extremely bright meteors. These meteors are much larger than normal and can sometimes be brighter than the sun.

Fusion crust: Smooth, shiny black surface of a meteorite formed by the flash cooling of the molten exterior after ablation has stopped.

Hypothesis: A proposed theory about the natural world that could explain natural phenomena. A proposal based on incomplete evidence that sets up the opportunity for further investigation.

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Inclinometer: An instrument used to measure an angle of elevation (height) of an object.

Inclusion: A particle that is a part of something else.

Independent: Factor changed in an experiment (usually singular) to see how it impacts upon the dependant variable. Example is amount of light a plant is exposed to.

Intangible: Incapable of being perceived by the senses.

Kuiper belt: A disc shaped region of icy objects beyond the orbit of Neptune (30-55 AU). Comets which take less than 200 years to orbit the sun originate here.

Meteor: The bright light given off by a meteoroid as it burns through the atmosphere.

Meteor showers: A regularly occurring rain of meteors that radiate from a point in the sky. These meteors are the remnants of a comets tail.

Meteoroid: A small rock that is currently travelling through space. Once it has landed on a planet it is called a meteorite.

Meteorite: A rock from space that has survived re-entry and landed on the Earth's surface.

Mineral: A naturally occurring, inorganically produced crystalline solid with a fixed chemical composition.

Oort cloud: A disc shaped region of icy objects beyond the orbit of Neptune (5-100,000 AU). Comets which take more than 200 years to orbit the sun originate here.

Orbit: The motion of an object around a gravity point in space, such as the motion of a moon around a planet or the motion of a planet around the sun.

Organic molecules: Molecules made of carbon chains and other organic elements such as oxygen or nitrogen. Organic molecules are not necessarily biological in nature and can be from

Parallax: An apparent change in the position of an object due to a change in position of the observer.

Proteins: Long chains of molecules that serve a number of different functions within life forms from cell walls to respiration. They are made of amino acid chains and can form incredibly complex structures.

Rock: A naturally occurring solid made up of minerals or mineral like matter

Scale: The ratio of length in a model to the length of the real object.

Solar system: A star and all the objects that travel in orbit around it.

Trajectory: Path of a moving object in air or space influenced by factors such as thrust, gravity and wind resistance.

Trebuchet: A counterweight machine for hurling objects.

Variable: Any factor that can be controlled, changed or measured in an experiment that will influence results.