

The following glossary includes terms that are used in the student texts for Cratering in the Solar System section of the Feel the Impact materials. You will probably want to study the terms and their definitions before you read these student texts.

Crater

(krā´ tər)

A Crater is a depression on the surface of a planet (or a moon) usually caused by the impact of a meteoroid, asteroid, or comet.

Dwarf Planet

(dwôrƒ plăn´ ět)

Dwarf Planet is a name given to a small body that orbits the sun. Dwarf planets are large enough to be shaped by their mass into a spherical shape.

This definition of dwarf planets was written by astronomers in 2006 to accommodate the fact that many large bodies, but very small planets are being found beyond the orbit of Neptune, in the Kuiper Belt.

Ejecta

(ĕ jĕk´t)

Ejecta is material expelled from the impact site during a crater formation.

Ejecta Curtain

(ē jĕk´tā)

An Ejecta Curtain is a thin, funnel-shaped sheet of material or debris that has projected upward from a point of impact.

Gravity Dominated

(grā´vĭ·tē dŏm´ĭ nāt ěd)

Gravity Dominated is the term used when the gravitational force pulling the impactor down is significantly larger than the material strength of the target that is resisting that downward motion.

Hypervelocity

(hĭ´pər vĕl-ŏs-ĭ-tĭ)

Hypervelocity is a velocity many times the speed of sound.

Impact Velocity

(ĭm-păkt vĕl-ŏs-ĭ-tĭ)

Impact Velocity is the speed and direction of motion of two bodies at the time of impact. It is the difference between the speed and motion of each body.

Kinetic Energy

(kĭ·nĕtĭk ěn´ər·jĭ)

The Kinetic Energy of a moving body is one-half the product of its mass and its velocity squared.

Meteor

(mē'tě·ər)

A Meteor or “shooting star” is what a meteoroid becomes when it starts burning up in our atmosphere. Dust from the tails of comets are also seen as meteors.

We also see regular meteor showers like the Leonids and Perseids when the Earth travels through dust particles left over from a comet’s passage long ago.

Meteorite

(mē'tě·ər·īt)

A Meteorite is a meteor that lands on the Earth’s surface. Meteorites are found all over the world.

Meteoroid

(mē'tě·ər oid')

A Meteoroid is a piece of rock floating in space. The rock probably came from the asteroid belt between Mars and Jupiter, but some can come from Mars or the moon.

Porosity

(pôr ős' ĭ·tĭ)

Porosity is a measure of the void spaces in a material. A sponge is porous, as is a comet nucleus.

Projectile

(prô-jěk' tĭl)

Impactor

(ĭm'-păkt ər)

A Projectile, or Impactor, is an object that is traveling through space toward a target.

Projectile Density

(prô-jěk' tĭl dĕn'sĭ-tĭ)

Projectile Density is the density, that is, the mass per unit volume, of the object that impacts a surface.

Shockwave

(shök' wāv)

A Shockwave is a front that moves through the rock at supersonic speeds structurally altering the rock through which it passes.

Strength Dominated

(strĕngth dŏm'ĭ nāt ěd)

Strength Dominated is the term used when the strength of the material that makes up the target, or surface, is significantly larger than the gravitational force pulling the impactor down.

Target Density

(tār' gĕt dĕn'sĭ-tĭ)

Target Density is the density, that is, the mass per unit volume, of the surface that is impacted by a projectile or impactor.

Yield Strength

(yēld strēngth)

Yield Strength is the applied stress under which an object experiences plastic deformation. It can be measured in pounds per square inch in the English system or megapascals in the metric system.