THINK ABOUT

Do small space bodies experience erosion?

Very small bodies in space often have potato-like shapes. Some are covered with dust, boulders, and craters. Solar radiation can break down material directly or by heating and cooling a surface. Broken material can slide downhill, even on a small asteroid. What other processes do you think might act on small and medium-sized bodies in space?

Most objects in the outer solar system are made of ice and rock.

The materials in a space body depend on where it formed. The disk of material that became the solar system was cold around the outside and hottest in the center, where the Sun was forming. Far from the center, chemicals such as carbon dioxide, ammonia, and water were frozen solid. These ices became part of the material that formed bodies in the outer solar system. Bodies that formed near the center of the solar system are made mostly of rock and metal. Bodies that formed far from the center are mostly ice with some rock and a little metal.

Some of the bodies had enough mass to become rounded. Some even melted and formed cores, mantles, and crusts. Many of these bodies have mountains and valleys, volcanoes, and even winds and clouds. The processes at work on Earth also affect other space bodies.

The name of Earth’s satellite is the Moon, but the word moon is also used to refer to other satellites.