



# NASA Space Communications and Navigation (SCaN) Lunar Weather Fact Sheet

**Grades 3-5**

Learn about the weather on some of the moons in our solar system.

The **Earth's Moon** has ice in deep craters near its south pole. The Moon's craters are dark and cold bowl shaped holes on its surface. NASA's Artemis program plans to send the first woman and the first person of color to the Moon.



**Enceladus**



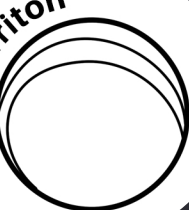
Saturn's moon **Enceladus** [ en-sel-uh-duhs ] has geysers, or holes, that shoot water into space. The vapor freezes and falls back to the surface as snow. Some of the ice also escapes the moon to become part of Saturn's rings. It's one of the brightest objects in our solar system.

Like Saturn's moon Enceladus, Jupiter's moon **Europa** [ yoo-roh-puh ] is another icy world with a liquid ocean below its frozen surface. NASA's Europa Clipper mission will further explore the icy moon.

**Europa**



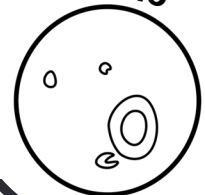
**Triton**



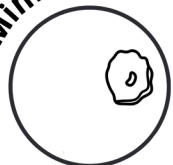
Neptune's largest moon is **Triton** [ trahy-ton ]. It has the coldest surface in our solar system. Triton's atmosphere is made up mainly of nitrogen. Nitrogen is a colorless, odorless, tasteless gas. Nitrogen freezes onto the moon's surface covering Triton with ice.

Jupiter has dozens of moons and one of them, called **Io** [ ee-oh ], has "snowflakes" made out of an element called sulfur. The sulfur shoots into space from a volcano on Io. In space, the sulfur quickly freezes into snowflakes that fall back down to the ground.

**Io**



**Mimas**



Saturn's small moon **Mimas** [ mee-mas ] is actually just a ball of almost pure water ice. It is not big enough to hold a round shape so it looks like an egg. Most of Mimas surface is covered with craters and many people think it looks like the Death Star from "Star Wars".