

Scientists say that it is possible for a moon to have its own moon

By Atlas Obscura, adapted by Newsela staff on 10.19.18

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Image 1. The lunar terminator — the divide between sunlight and darkness on the moon. Photo by: NASA/Thomas Campbell

Two scientists asked a big question: Can moons have moons? The interesting answer is yes!

Juna Kollmeier is an astronomer. An astronomer is a scientist who studies outer space. She asked Sean Raymond to help her answer the question. He is also an astronomer.

They wrote a paper on why they thought moons can have moons. There are a few things that have to be just right. The main moon has to be big enough. It also has to be far away enough from the planet it orbits. The scientists found that four moons in our solar system could have their own moons. They are two of Saturn's moons and one of Jupiter's. The other is Earth's moon.

It is useful to learn if moons can have their own moons. Kollmeier and Raymond say it can help us learn about how planets and their moons were formed. There is also some fun in it. People like when something repeats itself. It can be funny.

Who Doesn't Love The Idea Of A Sea Within A Sea?

People love islands within islands. A good example is Vulcan Point. It is an "island in the middle of a lake, in the middle of a volcano, in the middle of a bigger lake, in the middle of a bigger island." There are also countries-within-countries. Bodies of water within other bodies of water can be found. How can that be? They exist as a lake under a sea, or an underwater river. There is even a sea in the middle of more sea.

One of the questions about places like this is what to call them. Adding the letters "sub" before a word can help with the name. We call islands within islands "subislands." Kollmeier and Raymond call a moon's moon a "submoon."

There may be other choices. The name "moonmoon" has been used, but why stop there? Other ideas include "mini-moon," "second-order moon" and "nested moons." There is also "meta-moon" and "moon2."

What Sticks

It's less confusing if everyone uses the same language. Say we call a moon's moon a moon-moon. Then would an island in an island be an island-island?

In the end, the word that the most people use will be what sticks. That is how it always works.