

## **Mars in a Minute: Are There Quakes on Mars?**

Are there earthquakes on Mars? Or rather, “marsquakes?”

Quakes on Earth happen many times a day, largely due to continental plates shifting as they float on the mantle below. That’s called “plate tectonics.”

Mars doesn’t seem to have plate tectonics, but other things can make the ground shake too, like:

- cracking caused by contraction from cooling;
- magma moving and creating pressure deep underground;
- or even meteorite impacts.

Quakes of any kind send seismic waves around and through the planet. Scientists can study how those waves bounce off layers deep underground, to help understand what a planet’s interior is like.

NASA’s InSight lander carries a super-sensitive instrument to measure marsquakes, and could detect dozens of them during its mission. Each one can tell us a lot about what’s going on inside that mysterious red planet – and maybe, about how all the rocky planets came to be.