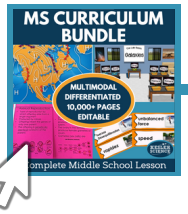
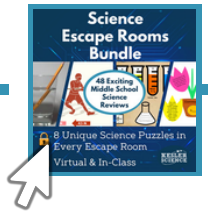
What Can Kesler Science Do for You?

4th - 8th grade science teachers love our Life, Earth, and Physical Science materials! With these easy and engaging materials, teachers can save planning time and put their focus back on the teaching that really matters.



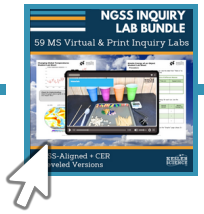
5E LESSONS

Two-week lessons with over 100 topics



ESCAPE ROOMS

Engaging activities for review

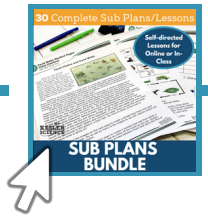


INQUIRY LABS

Three different levels to fit every student

AMAZING ANCHORS

Anchoring phenomenon to book-end your lessons



SUB PLANS

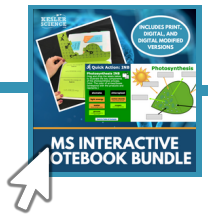
Never worry about planning for a sub again.

WARM-UPS

Bellringers for the entire year

STATION LABS

Student-led exploration

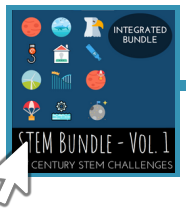


INTERACTIVE NOTEBOOKS

Bring science journals to life.

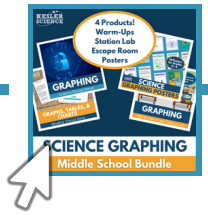
WIKI TICKETS

Quick formative assessments



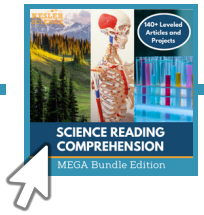
STEM CHALLENGES

Real-world STEM problem-solving



GRAPHING

Table and charts and graphs ... OH MY!

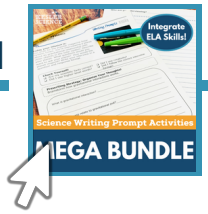


SCIENCE READING COMPREHENSION

Leveled reading passages with mini-activities

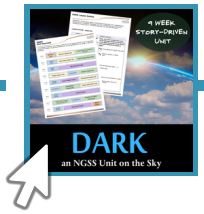
SPANGLER COLLABORATION

Exclusive Steve Spangler lessons and videos



WRITING PROMPTS

Writing activities covering 100+ topics



EXPLORIES

Story-driven units with integrated activities

The Kesler Science Professional Learning Network (PLN) group on Facebook has a huge community of engaged and supportive science teachers - come join us!

KESLER SCIENCE

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Weekly Phenomenon
Graphing Activity

Name: _____

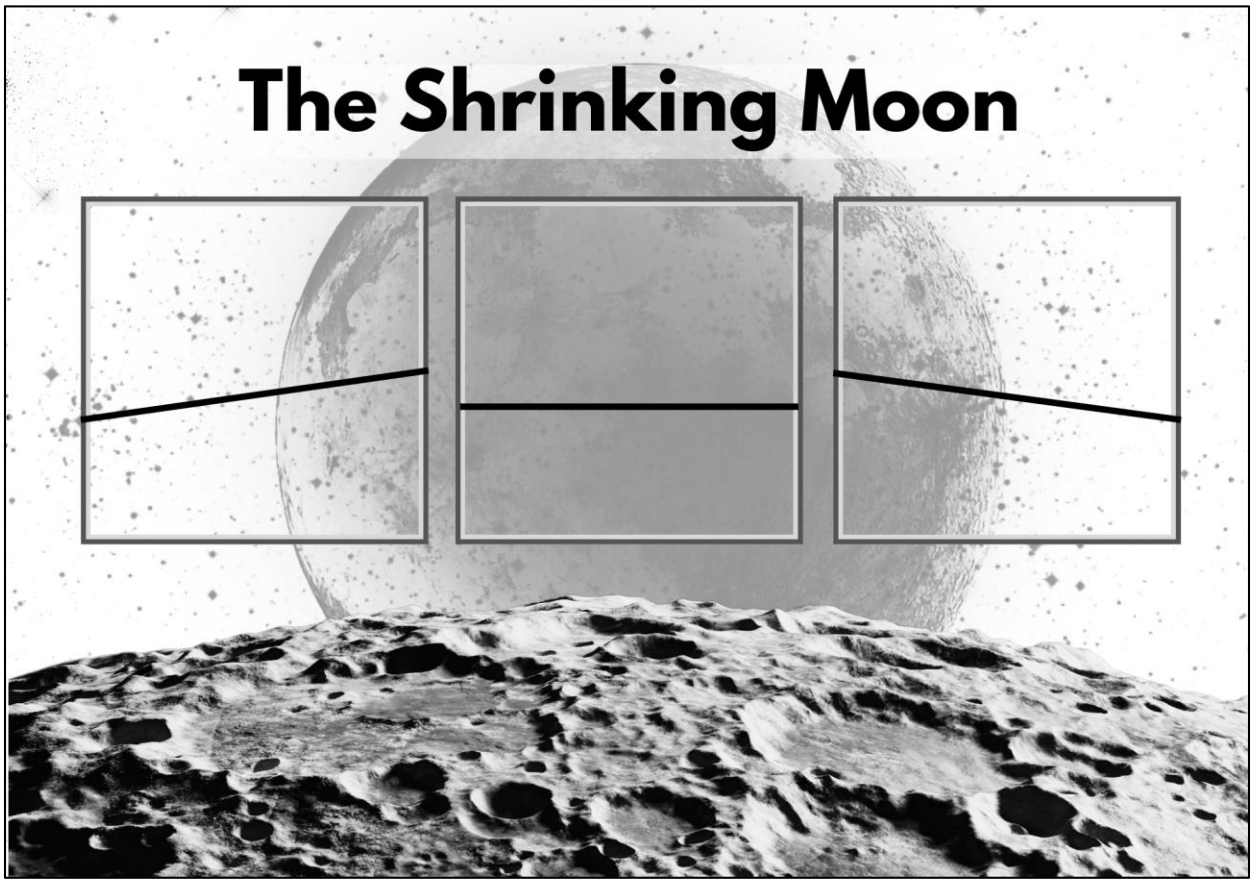
Date: _____

The Shrinking Moon, Plate Tectonics, and Density

Did you know the moon is (sloooowly) shrinking?

There's a great tie-in with earthquakes and tectonic plates here. Unlike Earth with its many plates, the moon has only one continuous plate. When Earth's tectonic plates shift and move, energy can be released in smaller ways. Earthquakes, volcanoes, subduction, mountain formation, sea floor spreading - they're all part of the balancing act.

On the moon, the whole crust can only fold up into ridges when the core cools and contracts (think of the way an apricot forms ridges as it dries out and you'll get the idea 😂). The result of this rearrangement? Moonquakes that can last for HOURS. Can you imagine if earthquakes lasted that long??



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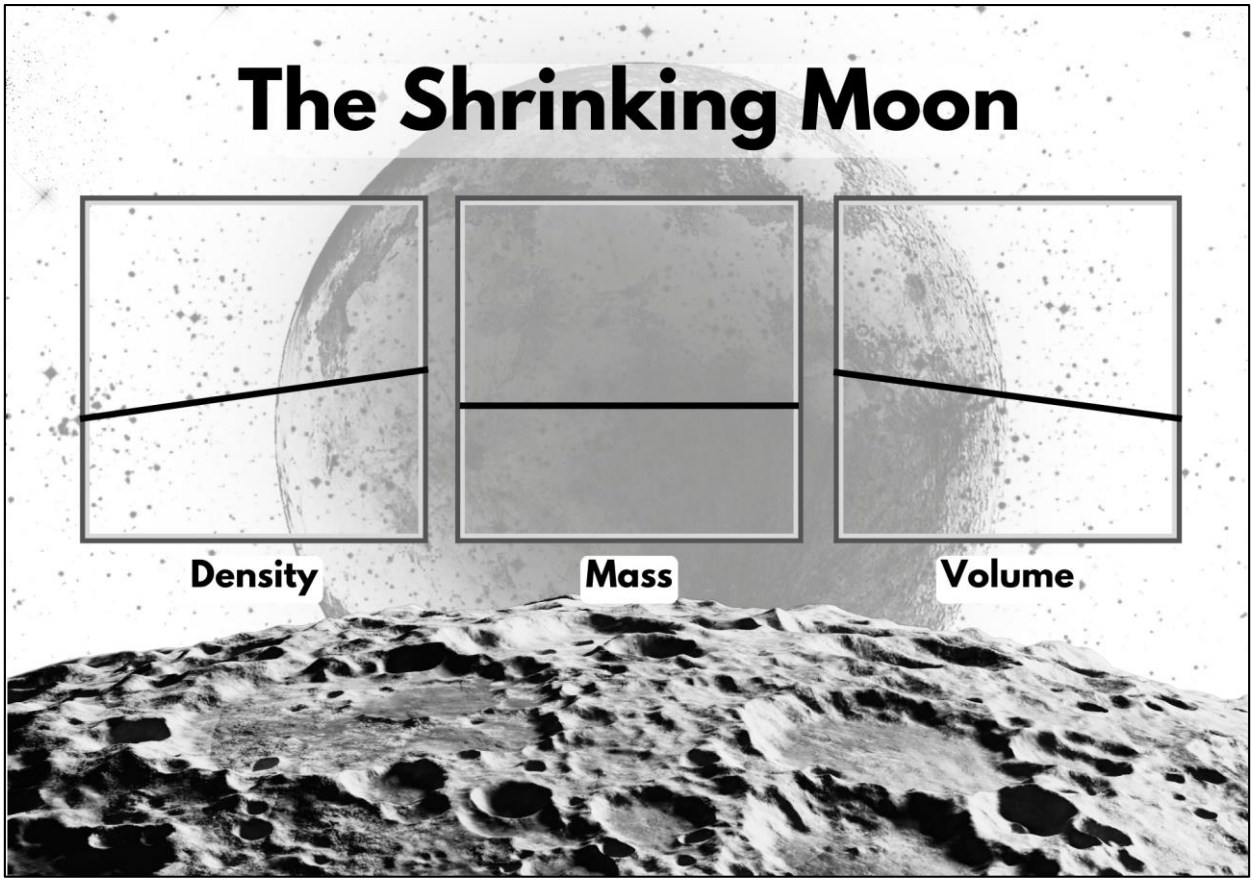
The Shrinking Moon, Plate Tectonics, and Density

Spoiler below!



1. What happens to the mass of the moon as it shrinks? Explain why you think this happens.

_____

_____

_____

2. What is volume? What pattern do you notice in the volume of the moon over time?

_____

_____

3. What is the density of an object? Use the formula for density to explain the pattern shown in the graphs.

_____

_____

_____

_____

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Blog Link: https://blog.keslerscience.com/phenomenon-and-graphing/shrinking-moon-volume-density-mass

The Shrinking Moon, Plate Tectonics, and Density

Did you know the moon is (sloooowly) shrinking?

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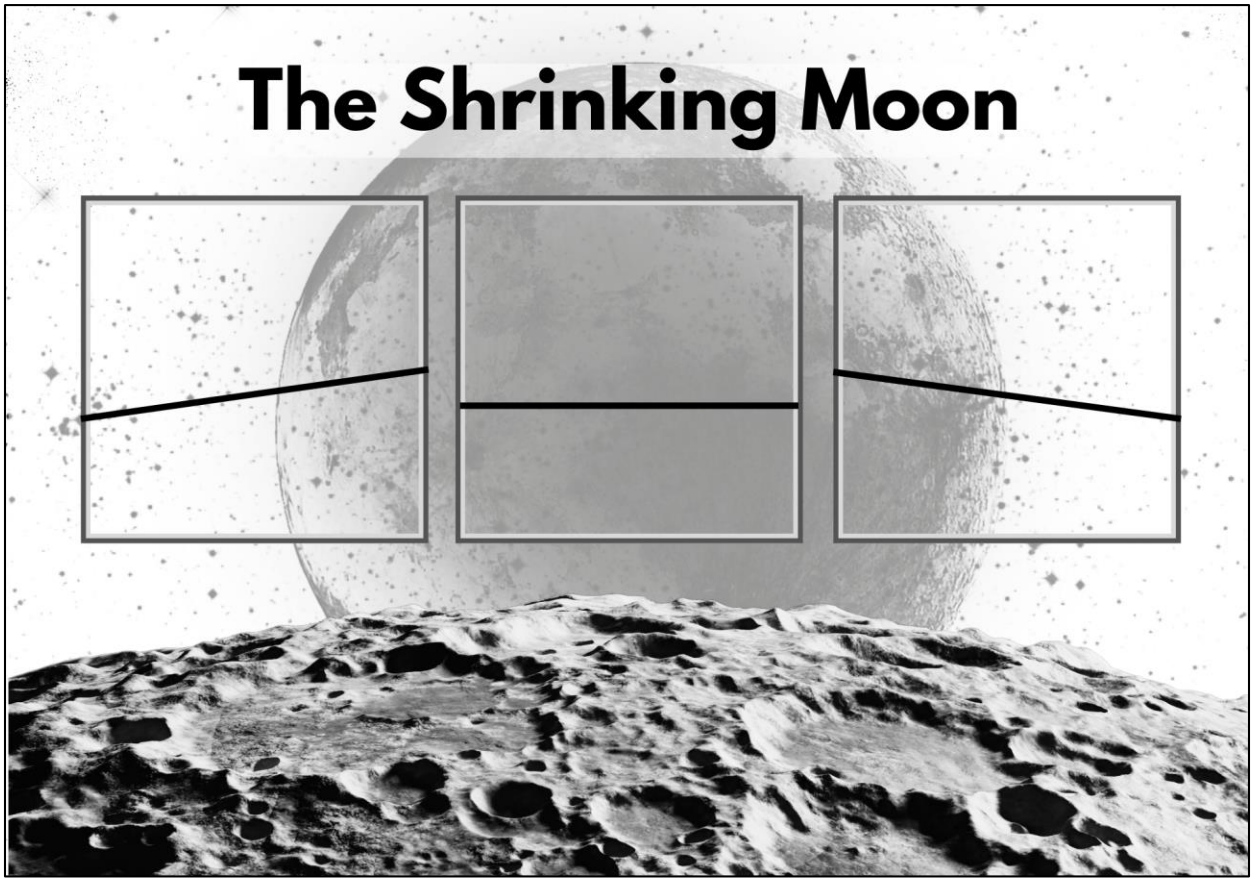
On the moon, the whole crust can only fold up into ridges when the core cools and contracts (think of the way an apricot forms ridges as it dries out and you'll get the idea 😂). The result of this rearrangement? Moonquakes that can last for HOURS. Can you imagine if earthquakes lasted that long??

Comparing the two spheres and their quakes might help your students understand the connection between earthquakes, energy, and tectonic plate movement.

For another connection, check out the two images below. On the first one, you can ask your students, which of the graphs represents the mass, volume, and density of the Moon as it shrinks, and why? The second image has the big reveal!



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The Shrinking Moon, Plate Tectonics, and Density

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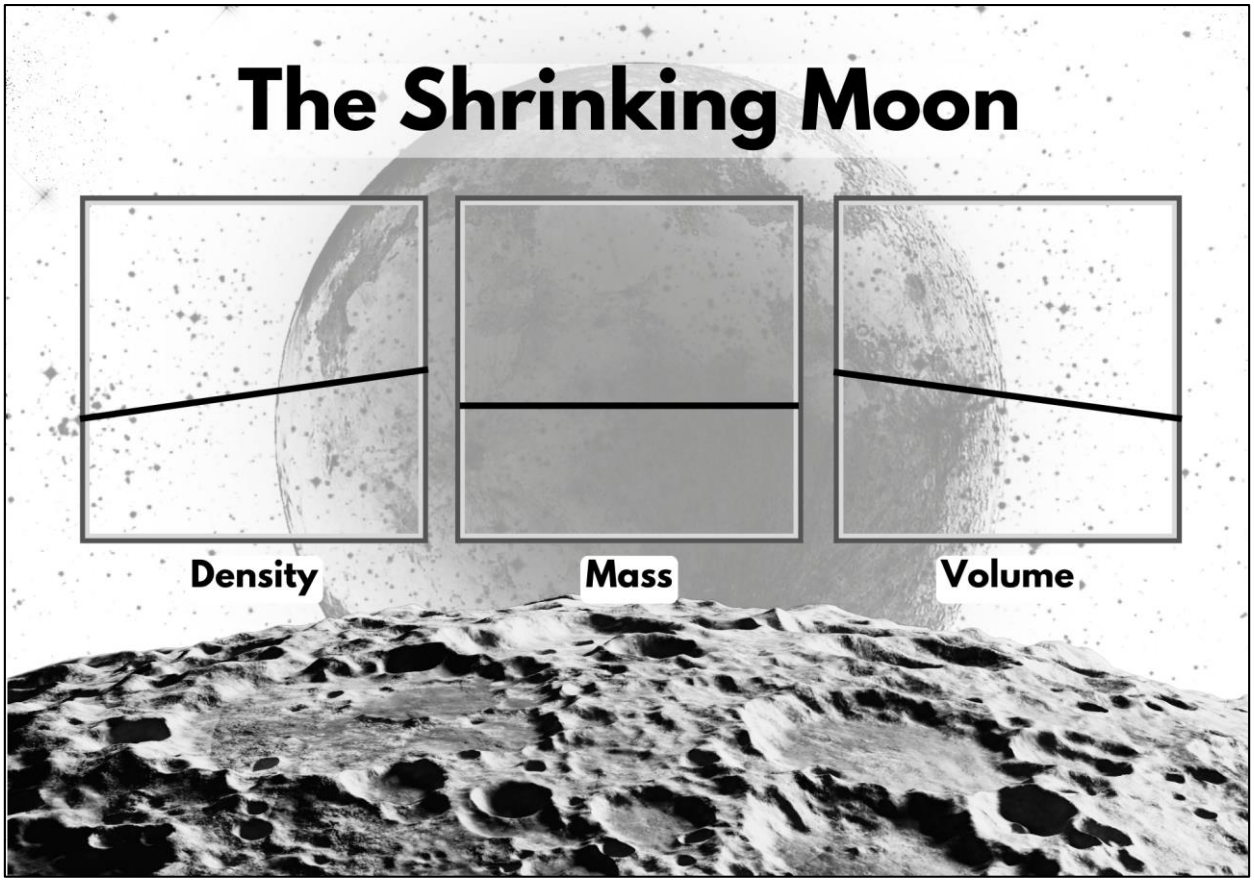

1. What happens to the mass of the moon as it shrinks? Explain why you think this happens.

   The mass of the moon does not change as the moon shrinks. This means that all of the matter that composes the moon remains present (there aren't pieces of the moon breaking off) but is becoming more compressed as it shrinks.

2. What is volume? What pattern do you notice in the volume of the moon over time?

   Volume is the amount of space an object takes up. In the graph, the volume of the moon decreases over time.

3. What is the density of an object? Use the formula for density to explain the pattern shown in the graphs.

   Density describes how close the particles of an object are. It is calculated by dividing mass by volume. If the mass of the moon stays constant but the volume decreases, we are dividing mass by an increasingly smaller number. This would result in a greater density.

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