

TRIMESTER I Study Guide for Final Exam on 11/12/19 and 11/13/19

TOPIC: Scientific Method (page/s _____)

<http://www.batty4science.com/7th-grade-science-blog/tuesday-100119-scientific-method-review-and-amplify-science-introduction>

- Observation: _____
- Inference: _____
- Objective: _____
- Subjective: _____
- Hypothesis: _____
- Independent Variable: _____
- Dependent Variable: _____
- Controls: _____
- Steps of the Scientific Method: 1) _____, 2) _____, 3) _____, 4) _____, 5) _____, 6) _____, and 7) _____.
- MAKE SURE you have a neat and clean model of the Scientific Method Process Flow-Chart in your ISN!

TOPIC: Amplify Science Geology on Mars (ASGM) Key Terms (page/s _____)

<http://www.batty4science.com/7th-grade-science-blog/tuesday-100119-scientific-method-review-and-amplify-science-introduction>

- Atmosphere: _____
- Biosphere: _____
- Channel: _____
- Claim: _____
- Compare: _____
- Evidence: _____
- Geologic Process: _____

- Geosphere: _____
- Habitable: _____
- Hydrosphere: _____
- Landform: _____
- Model: _____
- Planetary Geologist: _____
- Reasoning: _____
- Rocky Planet: _____
- Scientific Argument: _____
- System: _____
- Conglomerate: _____
- Basalt: _____
- Alluvial Fan: _____

TOPIC: Amplify Science Geology on Mars Unit and Chapter Questions (make sure you know how to answer them).

- Unit EQ - How can we search for evidence that other planets were once habitable? _____

- Chapter 1 EQ - What geologic processes could have formed the channel on Mars? _____

- Chapter 2 EQ - How can we gather more evidence about whether lava or water formed the channel on Mars? _____

- Chapter 3 EQ - How can we decide which geologic process formed the channel on Mars? _____

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- Make sure your FINAL DRAFT for your Geology on Mars CER is completed to answer: **Which geologic process formed the channel on Mars? (ISN page _____)**

TOPIC: ASGM Ch 1 Searching for habitability; Comparing Rocky Planets; and “Scale in the Solar System” 10/04/19 (page/s _____)
<http://www.batty4science.com/7th-grade-science-blog/friday-100419-asgm-11-comparing-rocky-planets-to-earth-scale-in-the-solar-system-and-isn-check-06>

- Two resources scientists look for when searching for habitability? _____ and _____
- The main reason why scientists compare Earth to Mars: _____

Scale in the Solar System: ① In _____, millions of people watched as _____ visited the _____ for the first time. Since then, many _____ have visited the area of _____ that’s just outside Earth’s _____. We’ve even built the _____, which circles Earth and allows astronauts to live and do _____ in space! We have also _____ more _____ areas of the _____ using _____ - _____ without people on board. However, humans have never set foot anywhere else in the solar system. _____ that helps humans travel and _____ in space has improved since that first trip to the Moon—so why _____ we traveled to any other _____? The answer lies in _____ and _____. Compared to the rest of our solar system, _____ is just a tiny dot _____ by a whole lot of _____ space. ② Our solar system includes the _____, the _____ that move around the sun, and the _____ that move around the planets. ③ The sun is by far the _____ object in our solar system: it’s so big that about 1.3 _____ Earths could fit inside it! ④ There are _____ planets in our solar system, and they _____ widely in _____. The smallest planet in our solar system is _____ — if Earth were hollow, about _____ Mercurys would fit inside. The largest planet in our solar system is _____. It’s so big that more than _____ Earths could fit inside! ⑤ The _____ in our solar system don’t just vary in _____; each is also a different _____ from the sun. The _____ planet to the sun is _____; it’s about _____ kilometers from the sun. The _____ planet from the sun is _____ — it’s _____ kilometers from the sun. The _____ of each planet from the sun makes a big _____ in its _____ and whether it can _____. Planets that are _____ to the sun, like Mercury and Venus, get a lot of _____ from the sun and are too _____ to be _____. Planets that are very _____ from the sun, like Uranus and Neptune, get _____ energy from the sun and are much too _____ to be _____. On these planets, _____ exists only as _____. Earth is about _____ million _____ from the sun, which is good news for living things. _____ can support life partly because it has _____ — and it has liquid water because it’s just the right _____ from the sun. ⑦ Since all the planets in the solar system (including Earth) are always _____ around the sun, the _____ between them are always _____. Even when our closest neighbor planets are as close to Earth as they can get, they’re still very far away: Earth’s _____ planet _____ is so far away that it would take _____ to get there by rocket. Other planets are much farther from Earth than Mars is—a spacecraft launched from Earth would take about _____ years to reach _____!

TOPIC: ASGM “Investigating Landforms on Venus” (page/s _____)

<http://www.batty4science.com/7th-grade-science-blog/friday-101119-active-reading-in-amplify-and-isn-check-07>

① Imagine traveling in a spaceship toward the _____ of the planet _____. At first, everything is hidden by thick clouds, but as you get closer, you can see the _____ below. As you fly over the surface, you notice strange _____ scattered around. They are raised _____ with _____ reaching outward in all directions. These are called _____ (NO-vay). ② Why do we see novae on Venus but not on _____? _____ Taras Gerya (TAR-as GARE-ya) wondered whether two important _____ between the two planets might help answer that question. First, Venus’s _____ is much _____ than Earth’s. Its thick atmosphere traps _____ from the _____, making Venus much _____ than Earth. The _____ surface _____ of Earth is a comfortable _____ (57°F), while the average _____ temperature of Venus is a scorching _____ (864°F)! Second, Gerya thought that possible differences between the _____ of Earth and Venus might affect how novae are _____. He didn’t know for sure, but he thought that the top rock _____ on Venus might be _____ than the top layer of Earth’s crust. A thinner crust might allow _____ rock called _____ to move toward the surface more easily, pushing the surface _____ to form the novae. ③ Gerya wanted to _____ his ideas about how novae form on Venus. But how? Venus is _____ of kilometers from Earth, and the novae there were formed millions of _____. To test his ideas, Gerya made a _____ of Venus. ④ _____ can help scientists like Gerya get _____ about things that are _____ or impossible to _____, like the creation of _____ on Venus. Some models are made of _____ materials and others run on _____, like Gerya’s Venus model. When Gerya made his computer model, he made it _____ Venus in ways that would let him _____ his ideas. For example, he made the surface _____ of the Venus model much hotter than the surface temperature of Earth. He also made the top _____ layer in his model much thinner than the top layer of Earth’s _____. Gerya _____ his model to show what would happen on Venus _____ with this combination of a high surface temperature and a thin rock layer. If _____ like novae formed in his model, he would have _____ that he was right about how novae on Venus were formed. ⑤ When Gerya _____ the model, it showed melted rock _____ up from _____, pushing the surface upward and creating raised _____ with cracks reaching out in all directions. ⑥ When he _____ the domes that formed in the computer model with the domes on the surface of Venus, he found that the domes in the computer model were the _____ size and _____ as the novae that have been _____ on the surface of Venus. Because the model _____ matched the _____ features on Venus, Gerya was more _____ that the _____ represented in his model were _____.

TOPIC: I#6 and I#7 Stream Table Investigations (page/s _____)

<http://www.batty4science.com/7th-grade-science-blog/tuesday-101519-i6-stream-table-landform-models> AND <http://www.batty4science.com/7th-grade-science-blog/thursday-101719-i7-testing-an-idea-with-the-stream-tables>

How _____ were _____ the _____ Stream Table Models SIMILAR to _____ flowing water on Earth?

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How were the Stream Table Models DIFFERENT than flowing water on Earth?
