Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Earth Science – Space Unit Summative**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Team: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_

| **Grading Rubric – Criterion A *Knowing & understanding*** | | | | | | | |
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| **8** | **7** | **6** | **5** | **4** | **3** | **2** | **1** |
| *Outline s*cientific knowledge  *Apply* scientific knowledge & understanding to *solve familiar* problems and *suggest solutions* to *unfamiliar* problems | | *State* scientific knowledge  *Apply* scientific knowledge & understanding to *solve familiar* problems | | *Recall* scientific knowledge  *Apply* scientific knowledge & understanding to *suggest solutions* to *familiar* problems | | *Select* scientific knowledge  *Select* scientific knowledge & understanding to *suggest solutions* to *familiar* problems | |

| Objective A – Strand 1 & 2 \* **MS-ESS1-3** Analyze and interpret data to determine scale properties of objects in the solar system. | |
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| Select, suggest solutions to familiar problems | Level: 1-2 |
| 1. The \_\_\_\_\_\_\_\_ is at the **center** of our solar system.    1. Earth    2. Jupiter    3. Sun    4. Moon | 1. Our **solar system** has . . . \_\_\_\_\_\_\_\_\_\_\_\_\_ 2. the sun, 8 planets, moons and other objects. 3. only 8 planets. 4. the sun, 9 planets, moons and other objects. 5. only 9 planets. |
| 1. The planets **orbit** around the sun in what kind of **shape**? 2. Satellite 3. Ellipse 4. Galaxy 5. Constellation | 1. This is a diagram of the Earth’s orbit around the sun. **Draw in the orbit of another planet**. *Image is not to scale.*   The Earth's orbit around the Sun |
| Recall, apply, suggest solutions to familiar problems | Level: 3-4 |
| 1. What helps **keep the planets** in our solar system in **orbit around the Sun**?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1. Put the following in order from smallest to biggest: solar system, galaxy, planet, and universe.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 1. If the **sun** was the size of a 14 cm **balloon**, what would best represent the **relative size of the earth**?    1. A soccer ball    2. A tennis ball    3. A golf ball    4. A sesame seed | 1. Explain why you picked the answer you did for #7.   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| State, apply, solve familiar problems | Level: 5-6 |
| 1. What is a galaxy?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  54 | 1. The diagram below shows parts of our solar system. **Label the diagram** using the following terms: sun, planet, moon. |
| Outline, apply, solve familiar problems, suggest solutions to unfamiliar problems | Level: 7-8 |
| 1. Imagine a new super-strong telescope discovers objects rotating around Jupiter.  Describe what these objects probably are and how you know*.*   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Imagine a new solar system is discovered. The system has one sun, one planet, and one moon. The mass of each body is given in the table below. Decide which of the three bodies in the table below (A, B, C) is the sun, which is the planet and which is the mood.  |  |  | | --- | --- | | Body | Mass | | A | 1 unit | | B | 36,000,000 units | | C | 60 units |   sun = \_\_\_\_\_\_\_\_\_ planet = \_\_\_\_\_\_\_ moon = \_\_\_\_\_\_\_  Explain how you made your decision: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |