



Coherence and Alignment Among Science Curriculum, Instruction, and Assessment (CASCIA) Project

Grade 8 Unit 2: Gravity and Motion of Objects in the Solar System

Task 3 Prompt 2 Parts A & B Scored and Annotated Anchor Set

March 2025

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CASCIA Grade 8 EOU Assessment 2 Task 3: Earth's Solar System

Prompt 2 Parts A & B Score Point 3

Prompt 2 Parts A & B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2 Part A. & Part B.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: Part A - Correct sorting of at least three (3) of the four (4) Rocky Planets and three (3) of the four (4) Gaseous planets Part B - Identifies that all Rocky planets have much higher density than all Gaseous planets based on data from Table 2	Response includes the following aspects: Part A - Correct sorting of four (4) Rocky Planets and four (4) Gaseous Planets Part B - Identifies that all Rocky Planets have much higher density than all Gaseous Planets based on data from Table 2	NA

Score Point 3 (3/3 aspects met)

- Part A
 - Correctly sorts **four (4)** Rocky Planets and **four (4)** Gaseous Planets.
- Part B
 - Identifies that Rocky Planets have a higher density than Gaseous Planets based on data from Table 2.

Part A.

Sort and list the rocky planets and the gaseous planets in Chart 1 using the data in Table 2.

Chart 1. Rocky Planets versus Gaseous Planets

Rocky Planets	Gaseous Planets
Mars, Earth, Mercury, Venus	Saturn, Jupiter, Uranus, Neptune

Part B.

Explain your reasoning for sorting the planets as either Rocky Planets or Gaseous Planets. Include how you used data from Table 2 to sort the planets.

To choose which planets are Rocky Planets + which are Gaseous planets the ones with the higher densities like Earth ($5,514 \text{ kg/m}^3$) would be considered as Rocky planets.

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Prompt 2 Parts A & B Score Point 2

Prompt 2 Parts A & B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2 Part A. & Part B.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: Part A - Correct sorting of at least three (3) of the four (4) Rocky Planets and three (3) of the four (4) Gaseous planets Part B - Identifies that all Rocky planets have much higher density than all Gaseous planets based on data from Table 2	Response includes the following aspects: Part A - Correct sorting of four (4) Rocky Planets and four (4) Gaseous Planets Part B - Identifies that all Rocky Planets have much higher density than all Gaseous Planets based on data from Table 2	NA

Score Point 2 (2/3 aspects met)

- Part A
 - Correctly sorts at least **three (3)** of the **four (4)** Rocky Planets and **three (3)** of the **four (4)** Gaseous Planets.

NOTE: The student indicates Uranus and Venus in the wrong groups.

- Part B
 - Identifies that Rocky Planets have a higher density than Gaseous Planets based on data from Table 2.

Part A.

Sort and list the rocky planets and the gaseous planets in **Chart 1** using the data in **Table 2**.

Chart 1. Rocky Planets versus Gaseous Planets

Rocky Planets	Gaseous Planets
Earth Mars Mercury Uranus	Jupiter Saturn Venus Neptune

Part B.

Explain your reasoning for sorting the planets as either Rocky Planets or Gaseous Planets. Include how you used data from **Table 2** to sort the planets.

If a planet has high density is rocky and solid and if it has low density it is gaseous and big.

CASCIA Grade 8 EOU Assessment 2 Task 3: Earth's Solar System

Prompt 2 Parts A & B Score Point 1

Prompt 2 Parts A & B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2 Part A. & Part B.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: Part A - Correct sorting of at least three (3) of the four (4) Rocky Planets and three (3) of the four (4) Gaseous planets Part B - Identifies that all Rocky planets have much higher density than all Gaseous planets based on data from Table 2	Response includes the following aspects: Part A - Correct sorting of four (4) Rocky Planets and four (4) Gaseous Planets Part B - Identifies that all Rocky Planets have much higher density than all Gaseous Planets based on data from Table 2	NA

Score Point 1 (1/3 aspects met)

- Part A
 - Correctly sorts at least **three (3)** of the **four (4)** Rocky Planets and **three (3)** of the **four (4)** Gaseous Planets.

NOTE: The student indicates Uranus and Venus in the wrong groups.

- Part B
 - Does **NOT** identify that all Rocky Planets have a much higher density than all Gaseous Planets based on data from Table 2.

Part A.
Sort and list the rocky planets and the gaseous planets in **Chart 1** using the data in **Table 2**.

Chart 1. Rocky Planets versus Gaseous Planets

Rocky Planets	Gaseous Planets
Earth Mars Venus Mercury	Jupiter Saturn Uranus Neptune

Part B.
Explain your reasoning for sorting the planets as either Rocky Planets or Gaseous Planets. Include how you used data from **Table 2** to sort the planets.

Jupiter is known for it gas and
Earth is a living planet so it's rocky

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Prompt 2 Parts A & B Score Point 0

Prompt 2 Parts A & B Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 2 Part A. & Part B.	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: Part A - Correct sorting of at least three (3) of the four (4) Rocky Planets and three (3) of the four (4) Gaseous planets Part B - Identifies that all Rocky planets have much higher density than all Gaseous planets based on data from Table 2	Response includes the following aspects: Part A - Correct sorting of four (4) Rocky Planets and four (4) Gaseous Planets Part B - Identifies that all Rocky Planets have much higher density than all Gaseous Planets based on data from Table 2	NA

Score Point 0 (0/3 aspects met)

- Part A
 - Does **NOT** correctly sort the Rocky Planets and the Gaseous Planets.
- Part B
 - Does **NOT** identify that all Rocky Planets have a much higher density than all Gaseous Planets based on data from Table 2.

Part A.
Sort and list the rocky planets and the gaseous planets in **Chart 1** using the data in **Table 2**.

Chart 1. Rocky Planets versus Gaseous Planets

Rocky Planets	Gaseous Planets
Saturn Uranus Neptune Jupiter	Mercury Mars Venus Earth

Part B.
Explain your reasoning for sorting the planets as either Rocky Planets or Gaseous Planets. Include how you used data from **Table 2** to sort the planets.

the least amount
 of density is put in rocky
 and more gaseous.