— END-OF-UNIT ANSWER KEY —

SOLAR SYSTEM UNIT

★ TEACHER COPY · ANSWER KEY

/ 30 TOTAL

PART 1 · MATCH THE PLANET

/ 8

Draw a line from each fact to the planet it describes.

1. The smallest planet, closest to the Sun → **Mercury**
2. The hottest planet, with thick clouds of carbon dioxide → **Venus**
3. The only planet known to have life → **Earth**
4. The Red Planet — has the biggest volcano in the solar system → **Mars**
5. The largest planet, with a 350-year-old storm called the Great Red Spot → **Jupiter**
6. The planet famous for its bright rings, with 292 moons → **Saturn**
7. The planet tipped over on its side → **Uranus**
8. The farthest planet from the Sun, with the fastest winds (2,100 km/h) → **Neptune**

PART 2 · TRUE OR FALSE

/ 5

Write T (true) or F (false) on the line beside each statement.

F Mercury has more moons than Earth.

T A day on Venus is longer than a year on Venus.

T Saturn would float in water if you had a big enough bathtub.

F Neptune was discovered before Uranus.

T Earth is in the "Goldilocks zone" — not too hot, not too cold for liquid water.

PART 3 · SHORT ANSWER

/ 6

Answer each question in 1–2 sentences.

1. Why is Venus hotter than Mercury, even though Mercury is closer to the Sun? **(2 marks)**

> *Venus has a thick atmosphere of carbon dioxide that traps heat (a runaway greenhouse effect). Mercury has almost no atmosphere, so heat escapes back into space.*

2. Name two ways scientists are exploring Mars right now. **(2 marks)**

> *(Any two of:) NASA's rovers (Perseverance, Curiosity) are driving across the surface; helicopters like Ingenuity have flown above; satellites orbit and map the planet; samples are being collected for future return to Earth.*

3. Why is Earth's magnetic field important for life? **(2 marks)**

> *It deflects harmful charged particles from the Sun (the solar wind) that would otherwise strip away our atmosphere — which is what scientists believe happened to Mars long ago.*

PART 4 · ORDER THE PLANETS

/ 8

Number the planets 1–8 in order from closest to the Sun (1) to farthest (8).

6 Saturn	3 Earth	8 Neptune	1 Mercury
5 Jupiter	2 Venus	7 Uranus	4 Mars

PART 5 · YOUR FAVORITE PLANET

/ 3

Pick one planet you found most interesting in this unit. In 3–4 sentences, explain why.

> **RUBRIC:** Full marks: identifies a planet, gives at least 2 specific facts about it, explains personally why it interested them. Half marks: names a planet and gives 1 fact. No marks: blank or unrelated.