UNIT 3 – SCIENCE REVISION TEST

Multiple Choice • Choose the best answer. Each question has three choices.

Name: _____ Class: _____ Date: _____

3.1 Write the word used to describe each of these.

a. The force of gravity on an object is called:

A. Weight

B. Mass

C. Energy

b. The quantity of matter in an object is called:

A. Mass

B. Weight

C. Force

3.2 Gravity and weight

a. Why does the Sun have more gravity than any of the planets?

A. The Sun has a larger mass than the other planets.

B. The Sun is smaller than the planets.

C. The Sun has no gravity.

b. What is the strength of gravity on Earth used in these questions?

A. 10 N/kg

B. 1 N/kg

C. 100 N/kg

c(i). What is the weight of a book with a mass of 1 kg on Earth?

A. 10 N

B. 1 N

C. 100 N

c(ii). A calculator has a mass of 150 g. What is its weight on Earth?

A. 1.5 N

B. 15 N

C. 0.15 N

d(i). How does the weight of Luna 2 compare on Earth and on the Moon?

A. Its weight is less on the Moon than on Earth.

B. Its weight is greater on the Moon than on Earth.

C. Its weight is the same in both places.

d(ii). How does the mass of Luna 2 compare on Earth and on the Moon?

A. Its mass is the same in both places.

B. Its mass is less on the Moon.

C. Its mass is greater on the Moon.

LIVEWORKSHEETS

3.3 Orbits

a. What keeps the Earth in its orbit around the Sun?

A. The Sun's gravity

B. Air resistance

C. Sound energy

b. Why does Mercury travel faster in its orbit than Earth?

A. The Sun's gravitational force is stronger on Mercury because it is closer to the Sun.

B. Mercury is farther from the Sun.

C. Mercury has no gravity.

3.4 Tides

a. In the original diagram, where will there be high tide on Earth?

A. At B and D

B. At A and C

C. At A and B

b. If there is low tide at a place, how many hours until the next low tide at the same place?

A. 12 hours

B. 6 hours

C. 24 hours

c. Which arrangement produces the highest tides (spring tides)?

A. The Sun, Earth and Moon are in a straight line.

B. The Sun, Earth and Moon form a right angle.

C. The Moon is far away from the Earth and Sun.

d. The Moon causes a tidal _____ on the Earth.

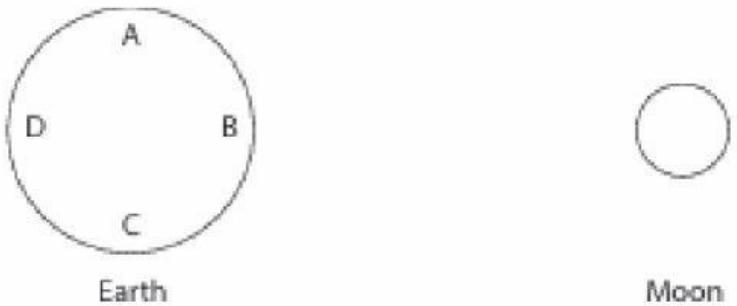
A. force

B. mass

C. energy

Original Earth–Moon diagram

e diagram is not to scale. [1]



[1]

LIVEWORKSHEETS

3.5 Units

Which two measurements have the same units?

A. Weight and force

B. Weight and mass

C. Mass and energy

3.6 Energy

a. Which word means to spread out and become less useful?

A. Dissipate

B. Increase

C. Concentrate

b. Which energy transfer in an electric motor is useful?

A. Kinetic energy

B. Thermal energy

C. Sound energy

c. Which two forms of energy are wasted by an electric motor?

A. Thermal energy and sound energy

B. Kinetic energy and light energy

C. Chemical energy and nuclear energy

3.7 Forces on a planet in orbit

Which row correctly shows the forces on a planet orbiting the Sun?

A. Air resistance: No; Gravity: Yes

B. Air resistance: Yes; Gravity: No

C. Air resistance: Yes; Gravity: Yes

3.8 Energy transfer

a. What type of energy is transferred from the fire to the water?

A. Thermal energy

B. Sound energy

C. Chemical energy

b. Where can some of the energy go instead of being transferred to the water?

A. Into the container and the surrounding air

B. It disappears completely

C. It changes only into mass

ANSWER KEY

All correct answers are A. 3.1(a–b), 3.2(a–d), 3.3(a–b), 3.4(a–d), 3.5, 3.6(a–c), 3.7 and 3.8(a–b).

LIVEWORKSHEETS