

## Template for Table of Specifications for the Sun, Earth, and the Moon unit test



Content	Knowledge definition	Knowledge Recognition and identification	Comprehension	Application	Total number	Per cent
Number of items					T:	--
Per cent					--	100

## Subject matter topics for the Sun, Earth, and the Moon unit grouped by learning objective



This document lists the name of the lessons and their objectives from the 'Sun, Earth, and the Moon' unit. This is a resource for Student Teachers to use when working with the Table of Specifications in Unit 4, Week 12.

### Lesson 1: Objects in the sky

#### Learning objectives

- Students will understand that the universe is vast and has millions of different types of objects, including our solar system.
- Students will understand that the Sun is the centre of our solar system, which has eight planets.
- Students will recognize the position of the Sun, Earth, and its Moon in the solar system.
- Students will know that all the planets revolve around the Sun in a circular path.
- Students will know the meaning of the word *orbit* and that paths of the planets around the Sun are called *orbits*.

### Lesson 2: How big, how far

#### Learning objectives

- Students will understand the concept of a scale model.
- Students will understand the relative size differences between the Sun, Earth, and the Moon.
- Students will be able to understand the relative distances between the Sun, Earth, and the Moon.
- Students will know that the Sun's diameter is more than 100 times as big as the Earth's diameter, and the Earth is about 100 Sun diameters away from the Sun.
- Students will understand that the Moon's diameter is around one-fourth the size of Earth's diameter, and it is about 30 Earths away from the Earth.

### Lesson 3: Endless Earth

#### Learning objectives

- Students will be familiar with the concept of spherical shapes.
- Students will understand that the Earth is a sphere.
- Students will be able to explain why they think that the Earth is a sphere.
- Students will be familiar with the discovery that the Earth is a sphere.

## Lesson 4: Movements of the Earth

### Learning objectives

- Students will understand that the Earth moves around itself and around the Sun.
- Students will be able to define the rotation and revolution of the Earth.
- Students will be able to differentiate between the concepts of rotation and revolution.
- Students will understand that the Earth's axis is an imaginary line drawn through the Earth's centre to represent its tilt and movement.
- Student will know the time it takes the Earth to complete a rotation and a revolution.

## Lesson 5: Day and night

### Learning objectives

- Students will understand the process by which day and night occurs.
- Students will be able to explain the role of the Sun in creating day and night.
- Students will be able to explain the role of the Earth's rotation in creating day and night.

## Lesson 6: Reason for seasons

### Learning objects

- Students will understand that the Earth rotates around itself on an axis.
- Students will understand the concepts of the southern hemisphere, northern hemisphere, and equator.
- Students will know that the axis of the Earth is tilted.
- Students will comprehend that the tilt in the Earth's axis causes different hemispheres of the Earth to experience different seasons.

## Lesson 7: Phases of the Moon

### Learning objectives

- Students will know that the Moon does not generate any light; it only reflects the light from the Sun.
- Students will learn that the Moon revolves around the Earth in a counter-clockwise fashion.
- Students will understand that the journey of the Moon around the Earth is called a lunar, or Moon phase, cycle.
- Students will know that it takes the Moon approximately 28 days\* to complete one lunar cycle.
- Student will learn that there are four major phases of the Moon.
- Students will be familiar with the names of the four major phases of the Moon.

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\* The time between two full moons (a Lunar cycle) is about 29.5 days. However, the time it takes the Moon to make one orbit around the Earth is about 27.5 days. This difference is caused by the fact that the Earth-Moon system is orbiting around the Sun at the same time the Moon is orbiting around the Earth. For simplicity, this document talks about the lunar cycle and the Moon's orbit around the Earth as if they are the same duration, approximately 28 days.