



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society

कक्षा / **Class** : VIII

विषय / **Subject** : SCIENCE

Worksheet of chapter 11 - KEEPING TIME WITH THE SKIES

School - AECS KUDANKULAM

General Instructions:

- All questions are compulsory.
 - Draw diagrams wherever necessary.
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Section A: Multiple Choice Questions

1. The apparent motion of the Sun in the sky is due to:
a) Rotation of Earth b) Revolution of Earth
c) Tilt of Earth's axis d) Movement of the Sun
2. The time taken by Earth to complete one rotation is:
a) 12 hours b) 24 hours c) 365 days d) 30 days
3. The Earth's axis is tilted by:
a) 23.5° b) 45° c) 66.5° d) 90°
4. The shortest day and longest night in the Northern Hemisphere occur on:
a) 21 June b) 23 September c) 22 December d) 21 March
5. A year is defined as the time taken by Earth to complete:
a) One rotation b) One revolution around the Sun c) One lunar cycle d) One eclipse
6. The instrument used to measure time using the Sun's shadow is:
a) Telescope b) Sundial c) Clock d) Barometer
7. Leap year occurs every:
a) 3 years b) 4 years c) 5 years d) 6 years
8. The phases of the Moon are caused by:
a) Rotation of the Moon b) Revolution of the Moon around Earth
c) Revolution of Earth d) None

9. The standard time of a country is based on:
a) Local time b) Mean solar time c) Prime Meridian d) Time zone
10. The imaginary line passing through the North and South Poles is called:
a) Equator b) Axis c) Orbit d) Tropic

Section B: Assertion and Reason

Choose the correct option:

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true but R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false but R is true.

1. A: The Sun appears to move from east to west.

R: The Earth rotates from west to east.

2. A: Day and night occur due to Earth's revolution.

R: Revolution changes the direction of sunlight falling on Earth.

3. A: The Earth's axis is tilted, which causes seasons.

R: The tilt affects the amount of sunlight different parts of Earth receive.

4. A: The Moon completes one revolution around Earth in about 30 days.

R: The same side of the Moon always faces the Earth.

Section C : Case Study-Based Question

Rohit observed that in winter, the days were shorter and nights longer. He also noticed that on certain dates, the day length gradually increased.

- a) What causes variation in the length of days and nights?
- b) Which motion of the Earth is responsible for seasons?
- c) What is the position of the Earth on 21 June?
- d) Why are days and nights equal on 21 March and 23 September?

Section D: Short answer type questions I

- 1. Name all eight phases of the Moon in order.
- 2. If we didn't have clocks or calendars, how else could we measure time?

3. Why do most Indian festivals fall on different dates every year?
4. What is the purpose of launching artificial satellites?
5. Why does the Moon appear to change shape every night?

Section E: Short answer type questions II

1. How do shadows help explain Moon phases and eclipses?
2. What are the main differences between solar and lunar eclipses?
3. Explain how the Moon's phases affect its visibility and position in the sky.
4. What is the difference between the waxing and waning phases of the Moon?