



INDIAN SCHOOL AL WADI AL KABIR



CLASS: VIII	DEPARTMENT: SCIENCE 2025 - 2026	DATE: 17/01/2026
TEXTBOOK Q & A	TOPIC: KEEPING TIME WITH THE SKIES	NOTE: A4 FILE FORMAT
NAME OF THE STUDENT:	CLASS & SEC:	ROLL NO.

1. State whether the following statements are True or False.

- (i) We can only see that part of the Moon which reflects sunlight towards us.
- (ii) The shadow of Earth blocks sunlight from reaching the Moon, causing phases.
- (iii) Calendars are based on various astronomical cycles which repeat in a predictable manner.
- (iv) The Moon can only be seen at night.

[Answer:

- (i) We can only see that part of the Moon which reflects sunlight towards us. True**
- (ii) The shadow of Earth blocks sunlight from reaching the Moon, causing phases. False**
- (iii) Calendars are based on various astronomical cycles, which repeat in a predictable manner. True**
- (iv) The Moon can only be seen at night. False]**

2. Amol was born on the 6th of May on a full Moon day. Does his birthday fall on the full Moon day every year? Explain your answer.

[Answer:

No, his birthday will not fall on the full moon day every year. The full moon repeats itself based on the lunar cycle. The lunar cycle repeats itself every 29 days. There are a total of 12 lunar cycles, making 354 days. The birthday of Amol will be next year, according to the solar calendar, which will fall after 365 days. The lunar calendar and solar calendar do not always coincide, as they have a difference of 11 days. So it is highly unlikely that his

birthday will fall on a full moon day next year.]

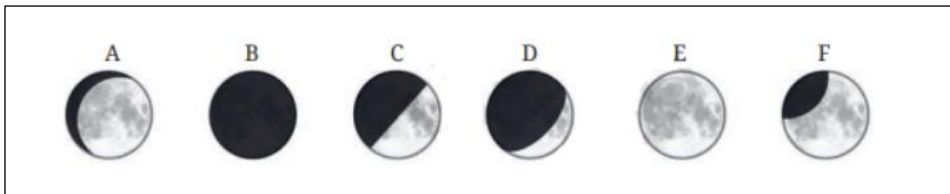
3. Name two things that are incorrect in Fig. 11.10.



[Answer:

Incorrect detail number 1: Stars are drawn upon the moon. This is wrong because Stars are farther away from the Earth than the Moon. A star can't show up in front of the moon.
Incorrect detail number 2: We can see in the figure that the clouds are coming from behind and in front of the moon. It is impossible because clouds are formed within the atmosphere, but the moon is thousands of kilometres away from Earth in space.
These are the two mistakes in the given figure.]

4. Look at the pictures of the moon in fig.11.11 and answer the following questions.



(i) Write the correct panel number corresponding to the phases of the Moon shown in the pictures above.

Picture label (e.g. A, B, C, etc.)	Phase of Moon
	Three days after New Moon
	Full Moon
	Three days after the Full Moon
	A week after the Full Moon
	Day of New Moon

Answer:

Picture label (e.g. A, B, C, etc.)	Phase of Moon
D	Three days after New Moon
E	Full Moon
A	Three days after the Full Moon
C	A week after the Full Moon
B	Day of New Moon

(ii) List the picture labels of the phases of the Moon that are never seen from Earth. Hint: You can use your observations from Activity 11.1 or Fig. 11.2 as a reference.

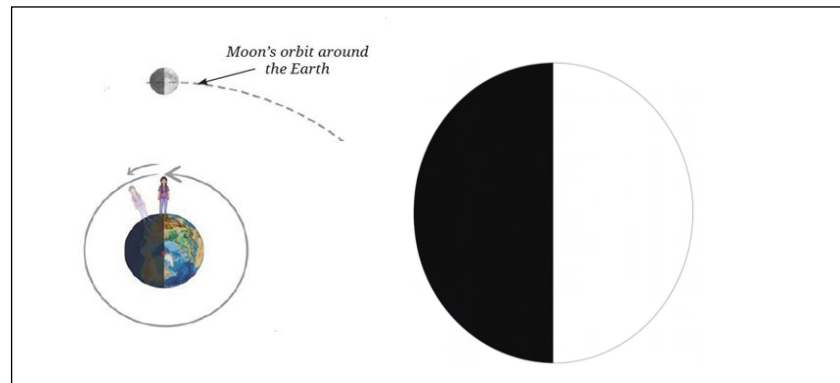
[Hint: Picture B]

5. **Malini saw the Moon overhead in the sky at sunset.**

(i) Draw the phase of the Moon that Malini saw.

(ii) Is the Moon in the waxing or the waning phase?

Answer:(i)



(ii) It is in the waxing phase

6. Ravi said, “I saw a crescent Moon, and it was rising in the East when the Sun was setting.” Kaushalya said, “Once I saw the gibbous Moon during the afternoon in the East.” Who out of the two is telling the truth?

Answer: Kaushalya is telling the truth; a gibbous moon can be seen in the afternoon.

Ravi's statement is wrong because a crescent Moon rises before sunrise, not when the sun is setting. The crescent moon does not rise in the east at sunset. A waxing crescent is visible

after sunset in the western sky, not rising in the east. Waning crescent rises just before sunrise, not at sunset

7. Scientific studies show that the Moon is getting farther away from the Earth and slower in its revolution. Will luni-solar calendars need an intercalary month more often or less often?

Answer:

If the Moon is getting farther away from the Earth and slower in its revolution. Luni-solar calendars will require an intercalary month less often because the lunar month will gradually become longer compared to the solar year.

8. A total of 37 full Moons happen during 3 years in a solar calendar. Show that at least two of the 37 full moons must happen during the same month of the solar calendar.

Answer:

In 3 years, 37 full Moons occur since there are only 36 calendar months in 3 years, at least two full moons must fall in the same month, and this is known as a blue moon.

9. On a particular night, Vaishali saw the Moon in the sky from sunset to sunrise. What phase of the Moon would she have noticed?

Answer:

If Vaishali saw the Moon in the sky from sunset to sunrise, it was a full moon because the full moon rises at sunset and sets at sunrise.

10. If we stopped having leap years, in approximately how many years would the Indian Independence Day happen in winter?

Answer:

Without leap years, the calendar would drift about one day every 4 years. A full season, the shift is roughly around 120 days. So the time needed for a 120-day drift is $120 \times 4 = 480$ years. Therefore, Indian Independence Day happen in winter after about 480 years.

11. What is the purpose of launching artificial satellites?

Answer:

Artificial satellites help us in many ways, like communication, navigation, weather monitoring, disaster management, and scientific research. The Indian Space Research Organisation (ISRO) has launched many satellites that support these activities.

12. On which periodic phenomenon are the following measures of time based: (i) day, (ii) month, (iii) year?

Answer:

(i) day -Rotation of Earth on its own axis

(ii) month -Revolution of the moon around the Earth(phases)

(iii) Year-Revolution of Earth around the sun

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