

## INTERACTIONS QUIZ

**1. Why do the Moon and Sun appear to be the same size in the sky?**

- a) The Moon is 400 times smaller but 400 times closer than the Sun
- b) The Sun is 400 times smaller but 400 times closer than the Moon
- c) The Earth is 400 times smaller but 400 times closer than the Moon

**2. Why do we not get a total lunar or solar eclipse every month?**

- a) The Moon is too far away
- b) The Moon is 5 degrees inclined to the ecliptic
- c) The Earth is not close enough to the Moon

**3. Which of these is the best time to observe craters and mountains on the Moon is..?**

- a) Full Moon
- b) Half Moon
- c) New Moon

**4. From Space which would be brighter?**

- a) A Full Moon
- b) A Full Earth

**5. What does the Moon like look to us when it is in First Quarter phase?**

- a) Quarter full
- b) Half full
- c) Crescent

**6. The Moon's phase cycle is 2.2 days longer than the orbital period of the Moon. Why?**

- a) The Sun rises earlier
- b) The Moon rotates around the Sun
- c) The Moon is orbiting the Earth at the same time as rotating around it

**7. Why do lunar eclipses last longer than solar eclipses?**

- a) The Moon travels faster during a solar eclipse
- b) The Earth casts a larger shadow on the Moon than vice versa
- c) The Moon is larger than the Earth

**8. Which of these eclipses last the longest?**

- a) Total solar
- b) Annular
- c) Total lunar

**9. The Moon moves in front of the Sun from our position. Using safely equipment, we observe a 'ring' of the Sun around the shadowed Moon. What is this eclipse called?**

- a) Total
- b) Annular
- c) Lunar

**10. During a total solar eclipse, the inner part of the Moon's shadow is called the..?**

- a) Umbra
- b) Penumbra

**11. This can be used to determine local noon and observer's longitude..?**

- a) Orrery
- b) Planisphere
- c) Shadow Stick

**12. What is a disadvantage if using a sundial to tell the time..?**

- a) Does not work when the Sun cannot cast a shadow
- b) Does not work correctly if not precisely aligned
- c) Requires use of equation of time calculations to be accurate

**13. True or False? The Sun rises and sets at different times during the year**

- a) True
- b) False

**14. This is when the Sun is either at its lowest or highest position during the year...**

- a) Solstice
- b) Equinox

**15. This is the time of year when day and night time are equal...**

- a) Solstice
- b) Equinox

**16. 'Apparent Sun' means..?**

- a) The position of the sun in the sky at a given time
- b) The time we use on our watches

**17. A solar day is..?**

- a) The time it takes for the Sun to arrive at the same point in the sky as the previous day
- b) The time it takes for a star to be positioned at the same point in the sky as the previous day

**18. A Sidereal day is 4 minutes longer than a Solar Day. Why?**

- a) The Sun rises earlier
- b) Earth rotates around the Sun
- c) Earth is orbiting at the same time as rotating around the Sun

**19. The Equation of Time is..?**

- a) Apparent solar time - Mean solar time
- b) Apparent solar time + Mean solar time
- c) Apparent solar time = Mean solar time

**20. Aurorae are best seen..?**

- a) Toward the poles
- b) Toward the Equator
- c) Between the Tropics and Equator

**21. Aurorae are caused by..?**

- a) Solar wind rotating around Earth
- b) Trapped solar particles in the Van Allen belts near the poles
- c) Dust in the atmosphere

**ANSWERS**

1. (a)

2. (b)

3. (b)

4. (b)

5. (b)

6. (c)

7. (b)

8. (c)

9. (b)

10. (a)

11. (c)

12. (a) (b) (c)

13. (a)

14. (a)

15. (b)

16. (a)

17. (a)

18. (c)

19. (a)

20. (a)

21. (b)