

ANSWERS

G8 SOCIAL STUDIES

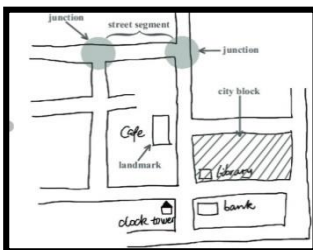
1. Identify the following maps



Topographical map



Atlas map



A sketch map.

2. Discuss the origin of the solar system under the following theories

a. The passing star theory

- ✓ A star with a greater gravitational pull passed near the sun
- ✓ It attracted large quantities of gaseous materials from the sun

- ✓ The materials split, cooled and condensed to form planets
- ✓ The planets were set in orbit by the passing star

b. The nebula cloud theory

- ✓ There was a slowly rotating cloud of dust and gas called Nebula. This caused high concentration of materials at the centre that formed the sun.
- ✓ Rotation speed increased and successive rings of gaseous materials were formed.
- ✓ The rings condensed to form planets.
- ✓ The materials grew in size enough to exert their own gravitational pull.
- ✓ The central gaseous material remained as the sun

3. State the names that describes the shape of the earth

- ✓ *Geoid*
- ✓ *Ovoid*
- ✓ *Oblate-spheroid*

4. What are the Effects of Rotation of the Earth

- ✓ Creates day and night because at any one time one side of the earth faces the sun (day)and the other remains in darkness (night).
- ✓ Causes deflection of winds and ocean currents in the N hemisphere to the left and in the S hemisphere to the right.
- ✓ It causes rising and falling of ocean tides.
- ✓ Causes time difference between longitudes.

5. What are the effects of Revolution of the earth?

- ✓ Causes the four seasons summer, autumn, winter and spring due to the movement of overhead sun causing changes in the heat belt.
- ✓ Causes variation of day and night's lengths due to the earth's axis being inclined to the path of revolution at an angle of 60°.
- ✓ Equinoxes have equal lengths of day and night.
- ✓ Summers have longer days and shorter nights.
- ✓ Winters have longer nights and shorter days.
- ✓ Causes changes in the altitude of the midday sun due to the earth's orbit being elliptical.
- ✓ Highest altitude during equinox.
- ✓ Lowest altitude during solstices.
- ✓ Causes lunar eclipse due to revolution bringing the earth in line with the sun and the moon.

6. If the time in Monrovia , Liberia ,12°W is 8:00am,what is the time at Addis Ababa, Ethiopia, 38 °E?

Longitudinal Difference= $38^{\circ}+12^{\circ}=50^{\circ}$

$1^0 = 4 \text{ Min}$ Or $15^0 = 1 \text{ hour}$

If $1^0 = 4 \text{ mins}$

What About 500? = ~~$50 \times 4 = 200 \text{ Mins}$~~

Change Minutes To Hours = $\left(\frac{200 \text{ mins}}{60 \text{ mins}}\right) \times 1 \text{ hr}$
 = **3 hours 20 Mins**

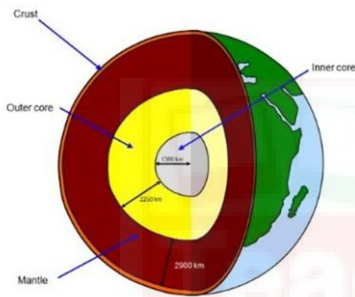
Since Addis Ababa Is Ahead Of Monrovia, Add Time

= $8:00 \text{ am} + 3 \text{ hr } 30 \text{ Min} = 11:20 \text{ am}$

7. List down four proofs that the earth is spherical

- ✓ **circumnavigation**
- ✓ **Approaching ship**
- ✓ **earth rotates from west to East**
- ✓ **Eclipse of the moon**
- ✓ **Earth curved horizon**
- ✓ **All other planets are round**

8. Identify the following parts of internal structure of the earth



9. State the characteristics of the earth's Core

- ✓ The innermost/central layer of the earth.
- ✓ Has 2 layers
- ✓ Outer Core
- ✓ Composed of very dense rocks
- ✓ Made up of nickel and iron
- ✓ Temperatures are up to 3700°c .
- ✓ Inner Core
- ✓ A solid mass of mainly iron
- ✓ Temperatures are estimated to be 4500°c to 5000°c .

10. State the Composition of the Atmosphere

- ✓ Gases-exist as a mixture
- ✓ Smoke particles
- ✓ Dust particles
- ✓ Water vapour.

11. a) Name the four main zones of the atmosphere

- Troposphere
- Stratosphere
- Mesosphere
- Thermosphere/ionosphere

12. The table below shows rain fall and temperature in town x use it to answer the questions that follow

| Months | JA | FE | MA | AP | MA | JUN | JUL | AU | SE | OC | NO | DE |
|-------------|----|----|----|----|----|-----|-----|-----|-----|----|----|----|
| Temp °C | 23 | 24 | 26 | 28 | 29 | 28 | 26 | 26 | 26 | 30 | 28 | 25 |
| Rainfall mm | 3 | 0 | 3 | 1 | 18 | 500 | 720 | 408 | 300 | 70 | 15 | 0 |

a) Calculate

i. The total annual rainfall

Add all values for rainfall in all the months

| | | | | | | | | | | | | |
|-------------|----|----|----|----|-----|------|------|------|------|-----|-----|----|
| Rainfall mm | 3+ | 0+ | 3+ | 1+ | 18+ | 500+ | 720+ | 408+ | 300+ | 70+ | 15+ | 0+ |
|-------------|----|----|----|----|-----|------|------|------|------|-----|-----|----|

2038

ii. The mean monthly rainfall

Add all values for rainfall in all the months, then, divide by the number of months

| | | | | | | | | | | | | |
|-------------|----|----|----|----|-----|------|------|------|------|-----|-----|----|
| Rainfall mm | 3+ | 0+ | 3+ | 1+ | 18+ | 500+ | 720+ | 408+ | 300+ | 70+ | 15+ | 0+ |
|-------------|----|----|----|----|-----|------|------|------|------|-----|-----|----|

$$= \frac{2038}{12}$$

169.83

iii. The annual range of temperature

Differences between highest and lowest mean monthly temperature in year

$$30-23 = 7^{\circ}\text{C}$$

iv. The mean annual temperature (2mks)

$$\text{Mean annual temp} = \frac{\text{sum mean monthly temperature}}{12} = \frac{319}{12}$$

$$= 26.58^{\circ}\text{C}$$

b) Using the table indicate the following

- i. The wettest month

July

- ii. The hottest month

October

- iii. The coolest month

January

13. What are the factors to be taken into account when sitting a weather station

- ✓ Open space-An open place where there is little obstruction of weather elements.
- ✓ Accessible place-Accessible place so that recording can be done easily.
- ✓ Gently sloping land-A fairly level or gently sloping ground (5°) so that it's easy to position weather instruments.
- ✓ Security-The place should have security.
- ✓ The place should provide a wide view of the surrounding landscape and the sky.
- ✓ The site should be free from flooding.

14. Write what element of weather they measure

- ✓ **Thermometer**- measures temperature
- ✓ **Hygrometer**- measures humidity
- ✓ **Rain gauge**-measures rainfall

15. State the Factors influencing population distribution in Africa.

- ✓ Climate.
- ✓ Security.
- ✓ Soil.
- ✓ Presence of water.
- ✓ Transport and communication.
- ✓ Historical events.
- ✓ Conflicts.
- ✓ Growth of towns among others.

✓

16. A Grade 7 learners in a certain school obtained the following data showing monthly temperatures recorded in the nearby weather station. Create a simple bar graph using the information given

| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Temp °C | 29 | 24 | 33 | 27 | 27 | 29 | 29 | 28 | 33 | 28 | 30 | 29 |

Simple Bar graph showing Monthly temperature distribution in Ukunda

