

Answers

Health revision questions

1. There is a change in the sensor- -it expands
 - it produces a voltage
 - it changes colour
2. The liquid expand and moves up the tube
3. Thinner tube
 - Different scale
 - One has a kink
4. Shake to rest temperature, place in the mouth until the temperature stops
Rising , take out and twist to focus
5. Temperature should be 37°C if it is not they are unwell
6. Something vibrating
7. Solid, liquid and gas
8. A vacuum
9. There are no particles to carry the vibrations
10. Bells --to collect sound vibrations
 - Tube-- to carry the sound to the ears
 - Ear piece – to keep other sounds out of the ear
11. Open bell to collect low frequency sounds (heart)
Closed bell to collect high frequency sounds (lungs)
12. Sound with frequencies greater than 20 000Hz which humans can not hear
13. It is sent into the body
 - Reflects off something
 - The time for it to return is measured
 - This is used to build up a picture of what is happening in the body
14. 0.000033s
15. Decibel -- dB

16. normal conversation—60db

Jet engine 120dB

Danger level 80dB

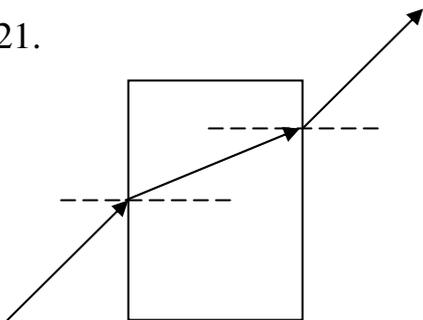
17. above danger level hearing is damaged

18. retina

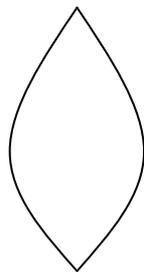
19. the lens

20. when waves change speed when they go from material into another

21.

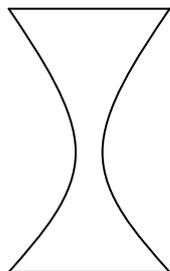


22.



Thicker in the middle than the edges

23.

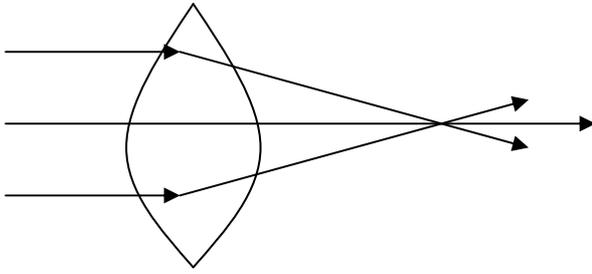


Thicker at the edges than the middle

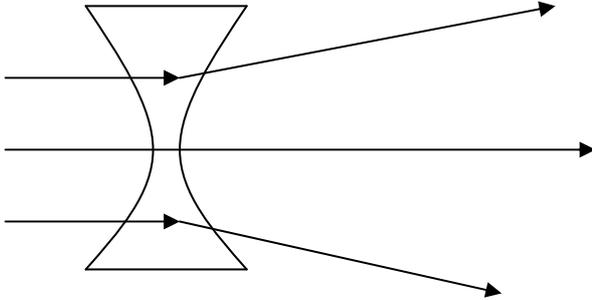
24. They can see distant object clearly but near objects are out of focus

25. They can see near objects clearly but distant objects are out of focus

26.



27.

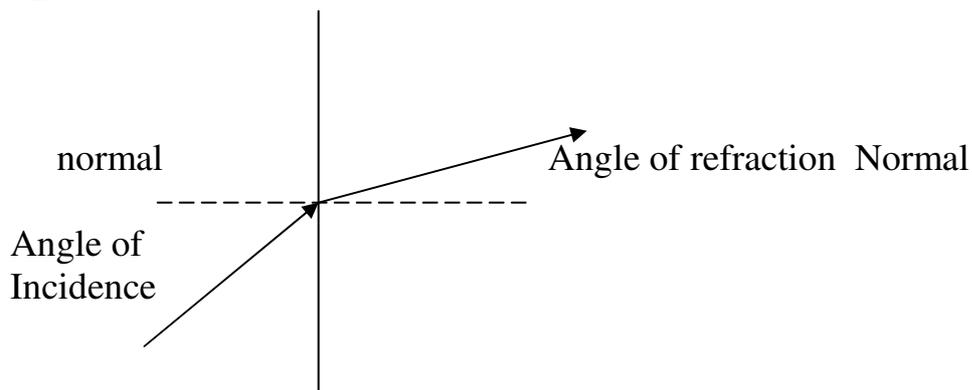


28. The light is made to converge using a convex lens so that it focuses on the retina and not behind it when looking at distant objects

29. The light is made to diverge using a concave lens so that it focuses on the retina and not in front of it when looking at near objects

30. Hold it against a wall, focus the images of a distant object and measure the distance between the wall and the lens

32.



33. dioptre D

34. -4.5D

35. It has two optical fibres
One to take light into the body to light inside
The other carries the reflected light back out to the observer's eye
36. laser scalpel , vaporise tumour
37. the bone absorbs the X ray and appears white on the film
the X rays can pass through the crack and turn the photographic film black
38. photographic film
39. To speed up the healing of damaged muscle
40. to treat some skin conditions
41. it can cause skin cancer
42. it gives a three dimensional picture which is more detailed
43. it can change the cell or kill it
44. when they are cancerous
45. To trace what is happening inside someone's body
46. A few centimetres of air
47. A few millimetres of aluminium
48. A thick sheet of lead
49. The proton and neutron are in the nucleus which is orbited by the electrons
50. It loss or gain an electron
51. Alpha
52. Some of it energy is absorbed
53. The number of decays each second
54. Becquerel—Bq
55. Its activity reduces

56. Sievert –Sv

57. Wash hands

Store in a lead box with the radiation symbol on it

Never point towards people's eyes and keep it away from the body

Use tongs to handle it

58. The gas is ionised

Charged then flow to the central wire which is at a high voltage

A pulse of current is then produced

59. Some substances give off a flash of light when they absorb radiation this is called scintillation.

60. The time taken for the activity of a radioactive material to fall to half its initial value

61. Measure the activity (count rate) of the source over a period of time - at

On regular intervals

Plot the activity of the source for each interval against time on a graph

On the graph mark an activity

Half this activity and from the graph find the time it took to half

62. 10 minutes

63. The type of radiation

The type of tissue absorbing it

The amount of radiation absorbed

