

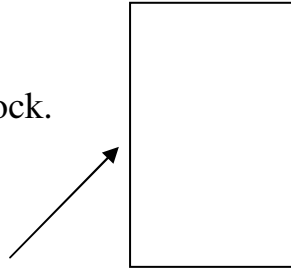
Health revision questions

The credit questions are in ----- ***bold and italics***

1. What happens in any thermometer when the temperature changes?
2. What happens in a liquid filled thermometer when the temperature changes?
3. Give three differences between a clinical and a laboratory thermometer and explain why they are different?
4. What steps have to be followed if someone is going to take someone's temperature with a clinical thermometer.
5. Why do people have their temperature checked and what should their temperature be?
6. What causes sound?
7. What can sound travel through?
8. What can sound not travel through?
9. Why can sound not travel in some places?
10. What are the three parts of a stethoscope and what so the do?
11. Why does a stethoscope have two bells?
12. What are ultrasounds?
- 13. Explain how an ultrasound can be used in medicine.***
14. If a baby is 50mm below the skin of a woman and the ultrasound travels at 1500 m/s how long is the time between the transmitted and detected pulse?
15. What does sound level measure and what is its unit?
16. What is the sound level of a normal conversation, a jet engine at 175m and the danger level?

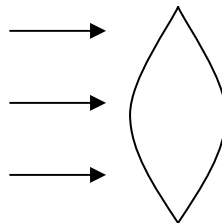
17. What effect do sounds above the danger level have?
18. On what part of the eye should light focus?
19. What makes the light focus?
20. What does the word refract mean?

21. Complete this ray diagram showing how the light would move through and out of the block.

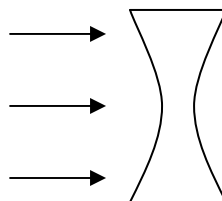


22. Draw and describe a convex lens.
23. Draw and describe a concave lens.
24. What happens if someone is long sighted?
25. What happens if someone is short sighted?

26. Complete this ray diagram.



27. Complete this ray diagram.



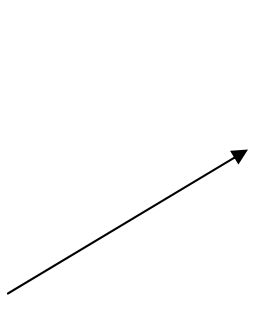
28. *What kind of lens is used to correct short sightedness and how does it work?*
29. *What kind of lens is used to correct long sightedness and how does it work?*
30. Describe what you would do to find the focal length of a convex lens?

31. What is used to produce a cold light source inside a human body?

32. **Complete this diagram and mark on it i) the normal**

ii) the angle of incidence

iii) the angle of refraction



33. **What is the unit used to measure the power of a lens?**

34. **What is the power of a concave lens which has a focal length of 22cm?**

35. **Explain how a fibro scope is used to examine a patient.**

36. What can a laser be used for in medicine

37. Why does an X-ray show a broken bone as white with a dark line in the bone?

38. What can detect X-rays?

39. What can infrared radiation be used for in medicine?

40. What can ultraviolet radiation be used for in medicine?

41. What happens to someone who receives too much ultraviolet radiation?

42. **Why is computer assisted tomography better than an X-ray?**

43. What does nuclear radiation do to living cells?

44. When is radiation used to kill living cells?

45. Radiation can be detected, how is this used in medicine?

46. What will absorb alpha radiation?

47. What will absorb beta radiation?

48. What will absorb gamma radiation?

49. What are the main parts of an atom and how are they arranged?
50. What happens to an atom if it is ionised?
51. What type of radiation causes most ionisation?
52. What happens to some of the radiations energy when it pass through a material?
53. What is meant by the activity of a radioactive source?
54. What is the unit of activity?
55. If a source is left for some time what happens to its activity?
56. What is the unit of equivalent dose?
57. What safety precautions should be used when working with radioactive materials?
58. What happens inside a Geiger-Muller tube?
59. What does scintillation mean?
60. What is the half life of a radioactive material?
61. What experiment has to be done to find the half life of a decaying material?
62. The count rate of a block of material is recorded at 100 counts per minute and 30 minutes later is 12.5 what is the half life of the material?
63. Biological materials are damaged by radiation, what things effect the amount of damage the radiation will do?

*Remember to go through your study guide
and summary notes !!!!!!!!!*

Look at the bite size web site.

*These section have information
about health physics.*

- *Radioactivity*
- *Waves-sound & ultrasound*