

1. What is the purpose of red blood cells?
2. What is the purpose of white blood cells?
3. What is the purpose of platelets?
4. What is plasma?
5. List the 3 differences between arteries and veins.
6. What type of muscle is the heart?
7. What causes heart disease?
8. What can prevent heart disease?
9. Why is the left hand side of the heart thicker than the right hand side?
10. Where are red blood cells made?
11. What are the 3 functions of the skeleton?
12. What do the ribs, skull and hips protect?
13. Name the 2 skeletons?
14. Name the 3 joints and where they are found.
15. Draw the three joints.
16. What are ligaments, cartilage, tendons and synovial fluid?
17. What are antagonistic muscles?
18. Name all the parts of a flower.
19. What is photosynthesis?
20. What is the photosynthesis equation?
21. What is chlorophyll?
22. Describe an experiment to show leaves make starch.
23. What is the stoma or the stomata?
24. What is tropism, phototropism and geotropism?
25. What are the definitions for pollination, fertilisation and germination?
26. Draw a diagram of a plant flower and label it.
27. What is the difference between a bee pollinated plant and a wind pollinated plant?
28. What are the 4 types of seed dispersal?
29. Why is seed dispersal important?

30. What is the definition of energy?
31. Name the 8 types of energy.
32. What is an insulator?
33. What are non-renewable source of energy?
34. Name the 6 types of renewable sources of energy.
35. What is nuclear energy?
36. Give 2 advantages and disadvantages of nuclear energy.
37. Describe an experiment to demonstrate the conversion of electrical to magnetic to kinetic energy.
38. Describe an experiment to demonstrate the conversion of light to electrical to kinetic energy.
39. Describe an experiment to demonstrate the conversion of chemical to electrical to heat energy.
40. What is the definition of speed, velocity and acceleration?
41. A car takes 15 seconds to accelerate from  $20\text{ms}^{-1}$  to  $80\text{ms}^{-1}$ . What is the acceleration of the car?
42. A car starts from rest and accelerates at a rate of  $6\text{ms}^{-2}$ . How long will it take to reach a speed of  $24\text{ms}^{-1}$ ?

43. Draw a velocity / time graph using the following data and use it to calculate acceleration. Label the two axes.

Time (s)	0	1	2	3	4	5
Velocity (m/s)	0	10	20	30	40	50

44. What is the definition of force?
45. Name 4 types of force.
46. What is the definition of friction?
47. What is the definition of Hooke's Law?
48. Describe an experiment for Hooke's Law?
49. What is the definition of Work?
50. What is the definition of Power?
51. What is a lever?
52. What is a fulcrum?
53. Explain the centre of gravity.
54. What is stable equilibrium?

55. The diagram below shows a balanced meter stick with a 3g mass at the 15cm mark and a 5g mass at position x. Calculate the value of x. (remember to convert the grams to Newton's.  $W = m \times g$ )

