

By the end of Autumn 1 you will know:

Reproduction

1. What is reproduction?
2. What are the male and female reproductive parts?
3. What are gametes?
4. What is fertilisation?
5. What are the adaptations of egg and sperm cells?
6. Where are the eggs released from?
7. Where is sperm produced?
8. How long is the menstrual cycle?
9. What happens first 5 days?
10. What happens on 14 day?
11. What happens after ovulation?
 12. What is a zygote?
 13. What is gestation?
 14. How long does human gestation last?
 15. What is the function of the placenta?
 16. What is the function of the umbilical cord?
 17. What is the function of amniotic fluid?
 18. What are the possible effects of pregnant women consuming drugs or alcohol?
 19. What is contraception?
 20. List some examples of contraception.
 21. What is the function of a condom?
 22. What are the pros and cons of contraceptive pill?
 23. What are the main parts of a flower?
 24. Which parts of the plant are male and female?
 25. What is pollination?
 26. What 3 ways can pollen be transferred?
 27. What is nectar?
 28. What are gametes?
 29. What is fertilisation?
 30. What is germination?
 31. What do seeds need for growth?
 32. What are the 4 method of seed dispersal?
 33. What are the adaptations of seeds dispersed by wind?
 34. What are the adaptations seeds dispersed by animals?
 35. What are the adaptations of seeds dispersed by water?
 36. How do insects pollinate plants?
 37. What are the adaptations of the wind pollinated plants and insect pollinated plants?

Genetics

38. What is DNA?
39. What are genes?
40. What is DNA made of?
41. Where is genetic information found?
42. What is the link between DNA and chromosomes?
43. Who discovered structure of DNA?
44. What is peer review?
45. What is the order of sizes; DNA, genes, Chromosomes, nucleus
46. What is variation?
47. Give an example of genetic and environmental variation
48. What is continuous data?
49. What is discontinuous data?
50. Which chart is used for continuous data?
51. Which chart is used for discontinuous data?
52. What is the reason why we look like our parents?
53. What is an allele?
54. What is a dominant allele?
55. What is a recessive allele?
56. Give an example of a homozygous and heterozygous genotype?
57. What is used to predict the probability of inheriting a trait?
58. What is unethical about predicting genetics/genetic screening?
59. What is evolution?
60. What is the theory of natural selection?
61. What is a fossil?
62. What is a species?
63. What did Charles Darwin do?
64. What is required for a theory to be accepted
65. What evidence is there for natural selection?

Interaction and interdependence

66. What resources do animals compete for?
67. What resources do plants compete for?
68. How is a cactus adapted to compete for water?
69. How is a tiger adapted to compete for food?
70. How is a peacock adapted to compete for a mate?
71. What adaptations are needed for survival in a tiger?
72. What does extinction mean?
73. Give an example of an extinct species.
74. Give 4 causes of extinction.
75. What is an endangered species?

76. List 3 methods used to prevent extinction.
77. What is prey?
78. What is a predator?
79. What is a producer?
80. What is a consumer?
81. What is a food chain?
82. What do the arrows represent?
83. What flows through a food chain?
84. What is a food web?
85. What is bioaccumulation?
86. What happens to numbers of secondary consumers if primary consumers decreases/become extinct?
87. What happens to the number of primary consumers if the secondary consumers decrease?
88. What is sampling?
89. What is a population?
90. What is a quadrat?
91. What piece of equipment is used for measuring length?
92. What organisms can we use sampling for?
93. How do you calculate the mean?
94. What is biodiversity?
95. What is an ecosystem?
96. What are the benefits of maintaining biodiversity?
97. Why do we need to maintain biodiversity?

By the end of Autumn 2 you will know:

Materials

1. What are the different parts of the Earth's structure?
2. What are the features of the mantle?
3. What are the features of the crust?
4. What is the crust made of?
5. What are minerals?
6. What is the core made of?
7. What state is the outer core?
8. What state is the inner core?
9. Give 3 examples of sedimentary rock.
10. What are the main properties of sedimentary rock?
11. What is weathering?
12. What is erosion?
13. What is deposition?
14. What does porous mean?

15. What are strata?
16. Name an igneous rock and a metamorphic rock.
17. Give 2 properties of igneous rock.
18. What causes different crystal sizes in igneous rock?
19. What is the difference between lava and magma?
20. What causes metamorphic rock to form?
21. What are the main features of metamorphic rock?
22. What are the three types of rock?
23. What is the rock cycle?
24. List the main stages in the rock cycle.
25. Name the 3 types of weathering.
26. What is a ceramic material?
27. What are the properties of ceramics?
28. What are two examples of ceramic materials?
29. What are three examples of uses for ceramic materials?
23. How are metals above carbon on the reactivity series extracted?
24. What is electrolysis?
25. How are metals below carbon on the reactivity series extracted from their ore?
26. Why can't carbon be used to extract magnesium?
27. State an advantage and a disadvantage to extracting metals using electrolysis.
28. Where do our resources come from?
29. What is recycling?
30. Name 3 materials that can be recycled.
31. Give 3 advantages of recycling.
32. Give 2 disadvantages of recycling.

Earth

1. What is the composition of the Earth's atmosphere?
2. What are the approximate percentages of the gases in the Earth's atmosphere?
3. What is a greenhouse gas?
4. Name the three greenhouse gases?
5. What is the greenhouse effect?
6. What is global warming?
7. Give 3 ways humans contribute to global warming.
8. What is the carbon cycle?
9. What is a carbon sink?
10. Give 3 examples of carbon sinks.
11. List all the process that release carbon.
12. List all the processes that absorb carbon
13. What is the word equation for respiration?
14. What is the word equation for combustion?
15. What is the word equation for photosynthesis?
16. What is fossilisation?
17. What is decay?
18. What is climate change?
19. Give some examples of how the climate is changing.
20. What effects could climate change have?
21. How could we prevent climate change?
22. What is an 'ore'?