IGCSE Year 1 Science
Topic 1: Life Processes and Ecosystems

Teacher's Answer Key

Set 1: Multiple Choice

Choose the single best answer for each question by circling the correct letter.

1. What form of exercise is best for building your stamina?

A. Sleeping
B. Running or swimming
C. Stretching
D. Sitting

Answer: B

2. What do we call drugs that are specifically used to treat illnesses?

A. Vaccines
B. Poisons
C. Medicines
D. Prescriptions

Answer: C

3. How are medicines for asthma usually taken into the body?

A. Swallowed as a pill
B. Rubbed on the skin
C. Injected
D. Inhaled through an inhaler

Answer: D

4. What do we call the practice of keeping infected animals apart from healthy ones to stop disease from spreading?

A. Rehabilitation
B. Vaccination
C. Quarantine
D. Digestion

Answer: C

5. Who used scientific enquiry to develop the very first vaccine for smallpox over 200 years ago?

A. Albert Einstein

B. Edward Jenner
C. Galileo
D. Isaac Newton

Answer: B

6. What is the scientific name for an animal's natural home or surroundings?

A. Ecosystem
B. Pharmacy
C. Habitat
D. Enclosure

Answer: C

7. Which of the following is a producer in a food chain?

A. A grasshopper
B. A hawk
C. A plant
D. A rabbit

Answer: C

8. An animal that only eats meat is called a:

A. Herbivore
B. Carnivore
C. Omnivore
D. Producer

Answer: B

9. What is the main source of energy for all living things on Earth?

A. The Sun
B. Soil
C. Water
D. Wind

Answer: A

10. During photosynthesis, what sugar do plants make for energy?

A. Sucrose
B. Fructose
C. Glucose
D. Lactose

Answer: C

Set 2: True or False

State whether each statement is True or False, and write your answer on the line provided.

11. Eating a balanced diet without any exercise is enough to make you strong and flexible. **False (Exercise is also needed**

12. Medicines can be swallowed, injected, inhaled, or absorbed through the skin. **True**

13. Only humans get infectious diseases; plants and animals do not. **False (Plants and animals als**

14. Rabies is an infectious animal disease that can be passed on to humans. **True**

15. Smallpox is a deadly disease that no longer exists today because of successful vaccination programmes. **True**

16. A rock-pool is a suitable habitat for a rabbit. **False (Suitable for crabs/limp**

17. Animals that are taken to rehabilitation centres are always able to return to the wild. **False (Sometimes they do not**

18. All food chains must start with a plant. **True**

19. An omnivore is an animal that eats only plants. **False (Eats both plants and m**

20. Animals get their energy indirectly from the Sun by eating plants or other animals. **True**

Set 3: Fill in the Blanks

Fill in the missing scientific word to complete each sentence.

21. To become more **flexible**, you need to do exercises like stretching to make your body bendy and supple.

22. Doctors sometimes give sick patients a **prescription** to take to a pharmacy so they can get the right medicine.

23. A **vaccine / vaccination** is a small amount of a disease injected into the body to teach it how to fight the illness.

24. The branch of medicine that deals with the prevention and treatment of diseases in animals is called **veterinary** medicine.

25. The place in the environment where a plant or animal lives is called its **habitat**.

26. Limpets have a strong muscular **foot** that attaches them to rocks so they aren't washed away by the tide.

27. When we describe what eats what in an environment, we are describing **feeding** relationships.

28. An animal that consumes another animal is a **predator**, and the animal it eats is its prey.

29. Plants make their own food through a process called **photosynthesis**.

30. During photosynthesis, plants use light energy to change water and **carbon dioxide** into glucose.

Set 4: Matching Concepts

Match the term on the left with its correct scientific description on the right. Write the correct letter (A–E) on the line next to each term.

Descriptions Bank:

A. An animal that relies on plants or other animals for its food.

B. Restoring an animal to health after an injury or illness.

C. The scientific name for our surroundings and the conditions found there.

D. Medicines used to treat infections caused by bacteria.

E. Being able to carry on doing something for a long time.

31. Stamina _____E_____

32. Antibiotics _____D_____

33. Rehabilitation _____B_____

34. Consumer _____A_____

35. Environment _____C_____

Set 5: Short Answer Questions

Write a brief scientific explanation for each question on the lines provided.

36. Why is it important to do exercises like push-ups and sit-ups?

Answer: These exercises build up strength in our legs, arms, and body.

37. Why should you never take medicine that was prescribed for someone else, or eat pills that look like sweets?

Answer: Medicines are drugs and can be dangerous or harmful if they are not used in the correct way or if you don't know what they are.

38. What did Edward Jenner observe about dairy maids that helped him create the smallpox vaccine?

Answer: He observed that dairy maids who had already caught cowpox did not catch the deadly smallpox virus.

39. What three things must a habitat provide for an animal to survive?

Answer: Food, water, and shelter.

40. How is a limpet's shell adapted to keep it safe from predators?

Answer: It has a strong, pyramid-shaped shell that is difficult to break, so it seldom gets eaten.

41. What is the purpose of an identification "key" in science?

Answer: Keys allow scientists to group and identify living things based on their similarities and differences.

42. What is the difference between a herbivore and a carnivore?

Answer: A herbivore eats only plants, while a carnivore eats only meat.

43. What does a food chain show?

Answer: It shows the feeding relationships in an environment (what eats what).

44. Why are plants called "producers"?

Answer: Because they make their own food using light energy from the Sun.

45. Look at this food chain: Grass $\rightarrow$ Rabbit $\rightarrow$ Hawk. What would happen to the hawk if all the rabbits died?

Answer: The hawk would lose its food source and might die or have to move to a new habitat to find food.

Set 6: Scientific Enquiry / Practical Questions

These questions test your ability to model and investigate scientific concepts.

46. A student runs on the spot for 60 seconds to test their fitness. What observation should they make to see how hard their body is working?

Answer: They should observe how their heart feels (heart rate) and how their skin feels (sweating/temperature).

47. When Edward Jenner tested his new smallpox vaccine, he repeated his test many times on other patients. Why is repeating tests an important part of scientific enquiry?

Answer: Repeating observations and tests gives a much more reliable result.

48. You want to investigate how plants need light to grow. You place Plant A in a sunny window. Where should you place Plant B to make a fair comparison?

Answer: In complete darkness (like a dark cupboard) to see the difference light makes.

49. In the plant light experiment above, name two variables you must keep the same to ensure it is a fair test.

Answer: The amount of water given to each plant, the type of plant, and the type of soil.

50. You are investigating pine leaves (needles) to see how they are adapted to snowy mountain habitats. You cut different leaf shapes out of paper and drop fake snow (flour) on them. What are you trying to observe?

Answer: You are observing which leaf shape catches the least amount of snow, preventing the branches from getting too heavy and breaking.