

Name _____

Date Due: _____

UNIT 2 PLANTS FOR FOOD AND FIBRE Topic 3: Plant Reproduction and Breeding

Seed Plant Reproduction:

1. What is the advantage of sexual reproduction in plants versus vegetative reproduction?

Cones:

2. What is a cone?

3. Cone bearing trees produce male and female cones. Female cones contain ovules or _____, while male cones contain pollen which contain _____.

4. Pollen is carried to the female cones by the _____.

5. When pollen grains reach the ovules, the sperm fertilizes the egg. This process is called _____.

6. How long might it take for a seed to be released after a female cone has been pollinated?

7. In your notebook, draw, label, and colour, the diagram "Fertilization in pine trees", Fig. 2.30, p. 120.

Flowers:

8. What is the purpose of brightly coloured petals on flowers?

9. What role do insects and other animals play in the life of flowers?

10. What percentage of the world's flowering plants are found in Canada?

11. How do flowers that bloom at night attract pollinators?

Pollination:

12. Explain the difference between self-pollination and cross-pollination.
13. In your notebook, draw, label and colour, the diagram "Seed formation", Fig. 2.34, p. 124.
14. For farmers the best pollinator is the _____.
15. What has recent scientific research found out about the relationship between cold temperatures and seeds?

From Seed to Fruit:

16. Once a plant has been _____, a _____ is formed.
17. In terms of plants, what is an embryo?
18. What is cotyledon?
19. In your notebook, draw, label and colour, the seed diagram, Fig. 2:36, p.125.

Fruit:

20. What is the scientific meaning of fruit?
21. Are cucumbers, green beans, tomatoes fruits? _____
22. What is one fruit that cannot be eaten?

Seed Dispersal:

23. In your notebook, make notes on seed dispersal. Define seed dispersal and list the different ways seed dispersal may take place.