

## UNIT 6: THE DIVERSITY OF LIFE

### PLANT REPRODUCTION.

Dear language assistant,

You are using a presentation to explain this topic. Here you have the comments for each slide. Notice that just bold letters are shown on the slides.

1. Title: **Plant reproduction.**
2. (Image of the parts of the flower). The flower is the reproductive organ of the plant and these are its main elements: **petals, sepals, stamen and pistil.**
3. **Accessory structures: What are they for?** (Picture of a simple flower to recognise petals and sepals)
  - a. The calyx consists of all the sepals, which protects the flower before it opens
  - b. The corolla consists of all the petals, which serve to attract pollinators through color and scent
4. **Male Reproductive Structure** The stamen consists of two parts: **Anther and Filament**
  - a. The anther is where pollen is produced.
  - b. The filament is a stalk that supports the anther
5. **Female Reproductive Structure** The pistil consists of the **stigma, style and ovary**
  - a. The sticky stigma receives the pollen from the anther
  - b. The pollen grows a tube down through the style towards the ovary where ovules are
6. **Pollination:** pollen moves from a flower to another flower, from the anther of one flower to the stigma of another
  - a. Flowers vary depending on pollination mechanism
7. **Types of pollination**
  - a. At the top left corner: Wind Pollination: Dull, scentless flowers with reduced petals
  - b. At the top on the right: Insect Pollination (bees, butterflies...): Bright color, nectaries, scent. They sip nectar, get pollen on coats, transfer pollen from flower to flower
  - c. At the bottom, on the left: Bird Pollination: Nectaries, bright colors, tube-like flowers. No in Spain but in tropical countries where hummingbirds live (colibrí)
  - d. At the bottom on the right: Moth Pollination: White petals, open at night
8. What type of pollination corresponds to these plants? .....Wind pollination.
9. **Pollination and fertilization** (four pictures)
  - a. After pollen lands on stigma...
  - b. .... a pollen tube grows down through the style to ovary. The tube contains the sperm nuclei.
  - c. In ovary, there is one egg or ovule nucleus. Fertilization occurs: one sperm nucleus fertilizes the egg
10. Fertilization. Review with three pictures.
11. Link to an animation to show pollination and fertilization.
12. **Seed and Fruit Development** After fertilization,

- a. the petals and sepals fall off flower
  - b. Ovary “ripens” into a fruit
  - c. The ovule develops into a seed
- 13. Seed Dispersal: allow plants to colonize new areas and avoid shade of parent plant.**
- 14. Seed Dispersal Mechanisms I.**
- a. Gravity Dispersal - Heavy nuts fall to ground and roll. Ex. Acorns
  - b. Water Dispersal – Plants near water create floating fruits. Ex. coconuts
- 15. Seed Dispersal Mechanisms II (these are the most important mechanisms)**
- a. Wind Dispersal - Flight mechanisms, like parachutes, wings, etc. Ex. Dandelion, maples, birch
  - b. Animal Dispersal - Fleshy fruits which animals eat, drop undigested seeds in feces **or** burrs which stick to animals’ coats
16. Which kind of dispersal corresponds to this fruit? ..... Animal dispersal.
17. Which kind of dispersal corresponds to this fruit?..... Water dispersal.
18. Which kind of dispersal corresponds to this fruit?..... Wind dispersal.
19. Which kind of dispersal corresponds to this fruit?..... Gravity dispersal.
- 20. Seed Germination:**
- a. Stem grows straight up and roots grow down.
  - b. The embryonic leaf or two leaves appears.

Then, the students can do some exercises from the Activity Book (53-57 and 61-62).

Thank you