

Flower Pollination & Seed Dispersal

Pollination is essential to the reproduction of flowering plants. It involves the transfer of pollen from one flower to another. Since plants cannot move, they must rely on pollinators to transfer pollen for them. Different flowers have different agents, or pollinators. The pollinator depends on the characteristics of the flower.

Some plants are pollinated by the wind. However, most angiosperms are pollinated by insects, birds, and mammals. Many of these organisms eat pollen and nectar produced by flowers. As the pollinator travels from flower to flower in search of food, pollen is accidentally transferred to another flower.

The following chart describes some common agents of pollinations. Use this information to decide which agents would pollinate each of the flowers described in the list.

<u>Pollinator</u>	<u>Special Characteristic</u>
<u>Honeybees:</u>	Excellent vision but cannot see the colour red; can see blue, yellow, and ultraviolet best.
<u>Night-flying moths:</u>	Cannot see colour; excellent sense of smell
<u>Flies:</u>	Attracted to scents that resemble dead or decaying animals
<u>Hummingbirds:</u>	Good sight; attracted to orange and red; poor sense of smell
<u>Bats:</u>	Active at night; attracted to sour, musty odors.

Pollinator: Using the table above, answer questions #1-7 by stating which pollinator would be best suited for pollinating the flower.

1. The banana plant has a hanging flower that opens only at night and gives off a musty odour.
2. Willow trees have simple flowers with little fragrance that produce tiny pollen grains.
3. Skunk cabbage releases an odour like that of decayed meat.
4. Flower A is bright orange with little fragrance.
5. Flower B has small white flowers that open at night and produce sweet scent.
6. Flower C is bright yellow with nectar located close to its surface.
7. Flower D is bright red with nectar located in long tubes.

Type of pollination:

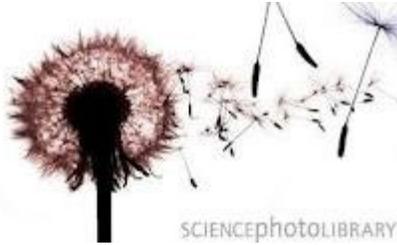
8. Which type of pollination is most random (wind or using a pollinator)? Explain your answer.
9. Do wind-pollinated or animal-pollinated flowers produce more pollen? Explain your answer.

Seed Dispersal

Just as flowers have different methods of pollination, angiosperm fruits have different adaptations to help scatter seeds away from the parent plant. The process of distributing seeds is called **seed dispersal**. The illustrations that follow represent four methods of seed dispersal. One method has 2 ways. Next to each illustration, briefly describe the method of seed dispersal. Use **Nelson p. 270 – 272** as a reference.

Diagram

Name the type of seed dispersal & Explanation



Why is seed dispersal important to plants?