



ALL ABOUT APPLE SEEDS

While commercial apple trees aren't grown from seeds, seeds do play a critical role in fruit growth.

Apples are formed when *apple blossoms are pollinated by honeybees*. If an apple blossom is well pollinated, the resulting piece of fruit, regardless of variety, will contain an average of 5–12 seeds. The piece of fruit will then attain maximum size, weather permitting.

The seeds are distributed among an apple's five seed chambers, called carpels, which are found near the core. Apples cannot self-pollinate, so they must receive pollen from another variety of apple tree, transferred by bees.

Pollen sticks to a bee's hairy legs when it lands on an apple blossom to collect its nectar. When the bee moves to another flower, it deposits some of that pollen on the next flower. A single bee can carry 100,000 pollen grains from flower to flower, cross-pollinating as it moves from tree to tree.

Seed development, in turn, stimulates apple tissue development, specifically the tissue near the seed. If a blossom is poorly pollinated – for example, due to overly cool weather or too much rain—both of which can keep pollen-carrying honey bees away—fewer seeds will form, and the resulting fruit will be small in size. An apple with few seeds will likely drop or fall to the ground before maturing.

DID YOU KNOW?

An apple that develops with more seeds on one side than the other will grow lopsided.

Related activities you can do at home or in school:

1. **Find the carpels:** Cut an apple open horizontally. Do you see the chambers?
2. **Look for a lopsided apple:** Cut it open -- you should find that the fuller side has more seeds in its carpels than the smaller side.