

# Explore an ear of corn

<b>Focus questions</b>	What do you know about this plant? How do the parts of the corn plant work together to produce an ear of corn?
<b>Vocabulary</b>	Commodity, reproduce, tassel, leaf, shank, silk, husk, ear, kernel, stalk, roots

Corn is an important food and fuel crop in the world today. It undergoes a series of developmental stages as it grows from a seed at planting to a tall plant with an ear at harvest. **Commodity** corn growth and development is dependent upon our understanding of corn structure and function. How does each part of the plant contribute towards the production of an ear of corn?

## Procedure

1. What does a corn plant require to grow and be productive? How does a plant **reproduce** to create more corn plants?
2. Look at the corn plant and identify its parts and their functions that you know. How does each part of the corn plant contribute to the energy necessary to produce an ear of corn?



3. Were there any parts of the plant that you did not know? Look at the functions for the corn parts below. Research the descriptions to determine the correct names and add them to the diagram above.
- Male part of the plant that contains pollen
  - Structure that provides surface area where light is intercepted and photosynthesis takes place
  - A hollow tube that transports the pollen to the kernel
  - Leaf-like structure that wraps around the ear for protection
  - Female part of the corn plant that contains the kernels forming after fertilization
  - Corn seed that produces another plant
  - Place where the leaf breaks away from the plant
  - Main body of the corn plant
  - Place where the ear attaches to the stalk
  - Underground structure that provides support and conveys water and nourishment to the rest of the plant via numerous branches
4. Investigate the ear of corn. How many kernels are on the average ear of corn below?



**Cross-section of ear**



**Lateral view**

5. Construct an explanation for how environmental and genetic factors influence the growth of the corn plant.

## Rubric for self-assessment

Skill	Yes	No	Unsure
I can identify the parts of a corn plant.			
I can describe the function of each part of the corn plant.			
I can explain how the parts and functions of the corn plant work together to produce an ear of corn.			