

## Do You Know the Parts of a Corn Plant?

*In the blanks below, label the parts of the corn plant.*



### Record Your Thinking

*How does a plant grow? Show by drawing or writing, or both.*

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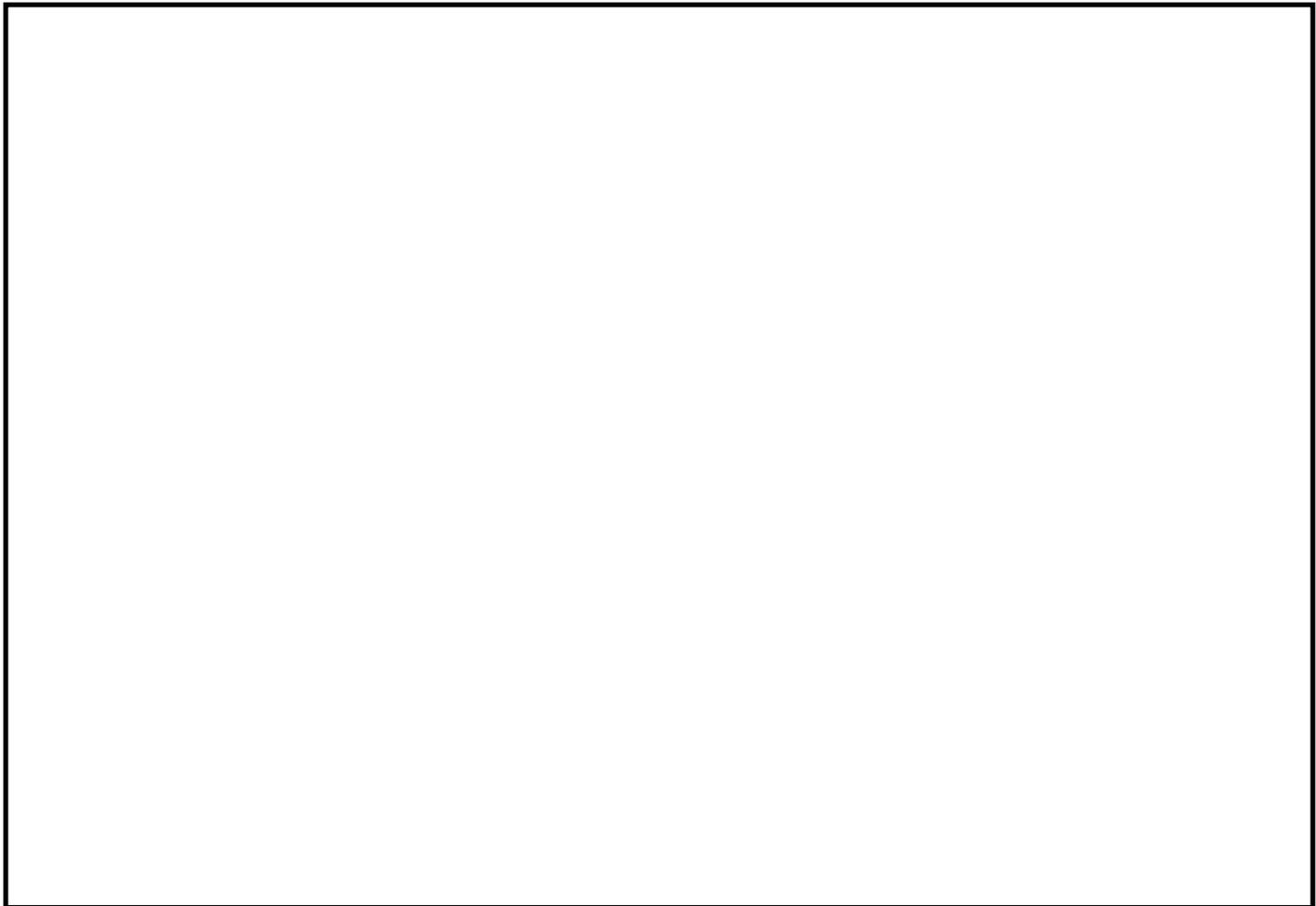
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## CORN: Structurally Speaking

### Lesson 1: Planting

Today's Date:

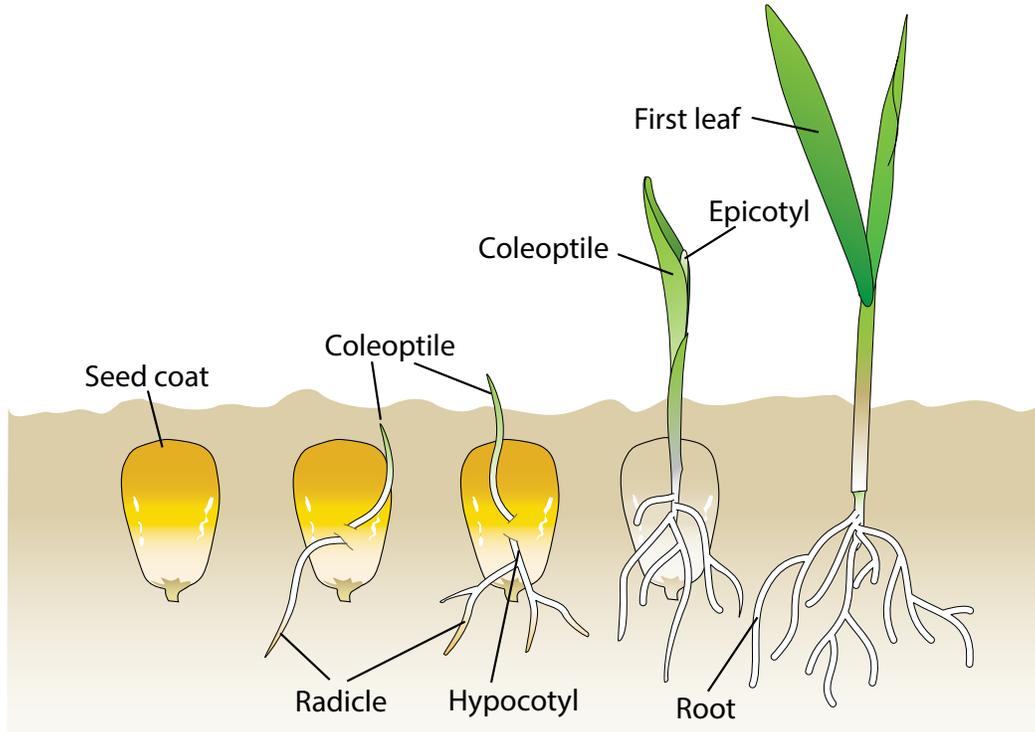
Draw a picture of what your container looks like today

Draw a picture of what you think your container will look like in 3 weeks.



## Lesson 2: Where is the Corn Seed?

### Emerging Corn Plant Structures and Functions



**Seed coat:** protects the starch and embryo from insects and diseases: both at planting and in storage

**Corn seed radicle:** first part of a growing plant embryo that emerges from the seed during germination. The radicle is the first root of the plant and grows downward in the soil

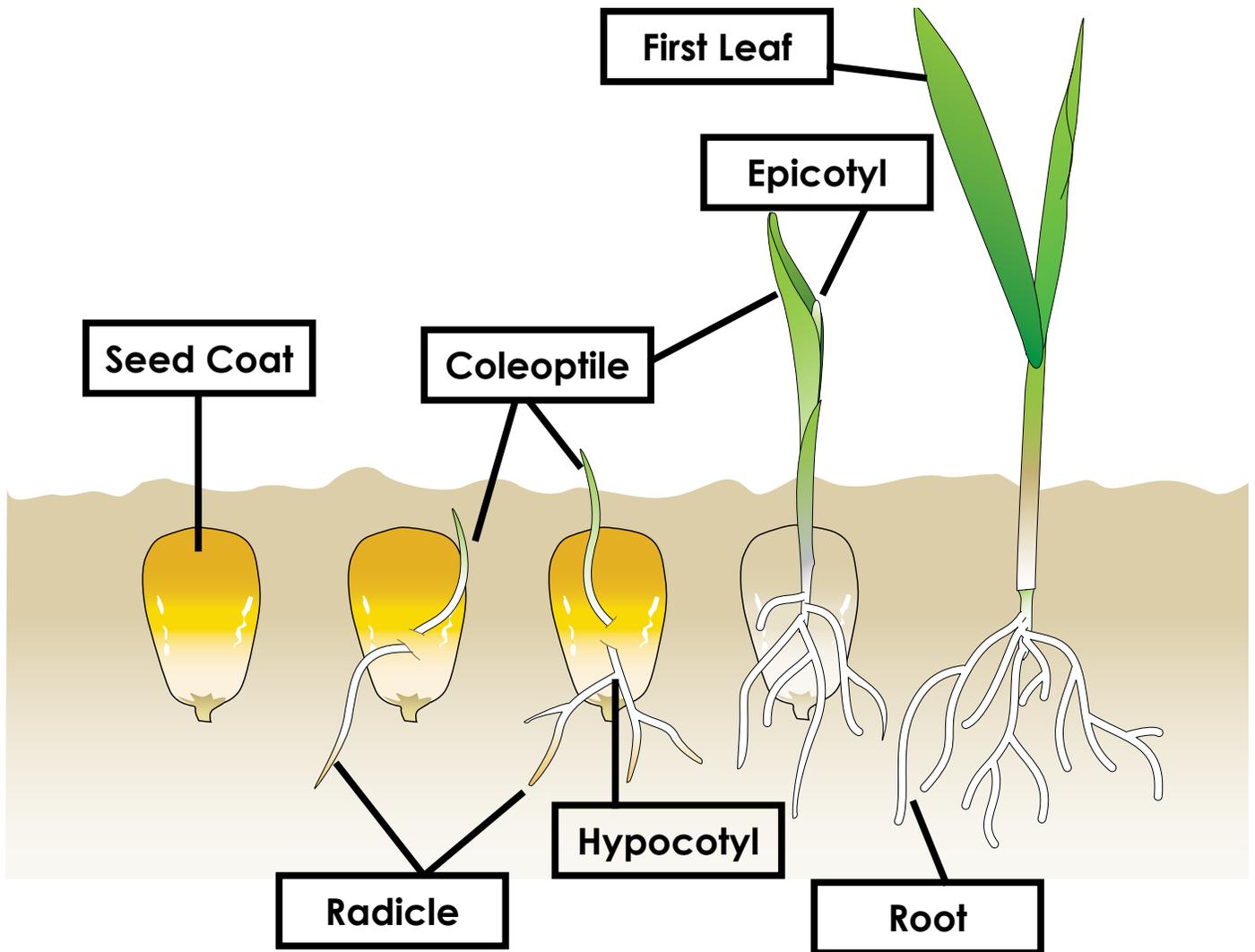
**Corn seed coleoptile:** a pointed protective sheath covering the emerging shoot (epicotyl) that pushes above the ground for the first leaves to appear

**Corn seed hypocotyl:** region between the radicle and the coleoptile and forms more roots

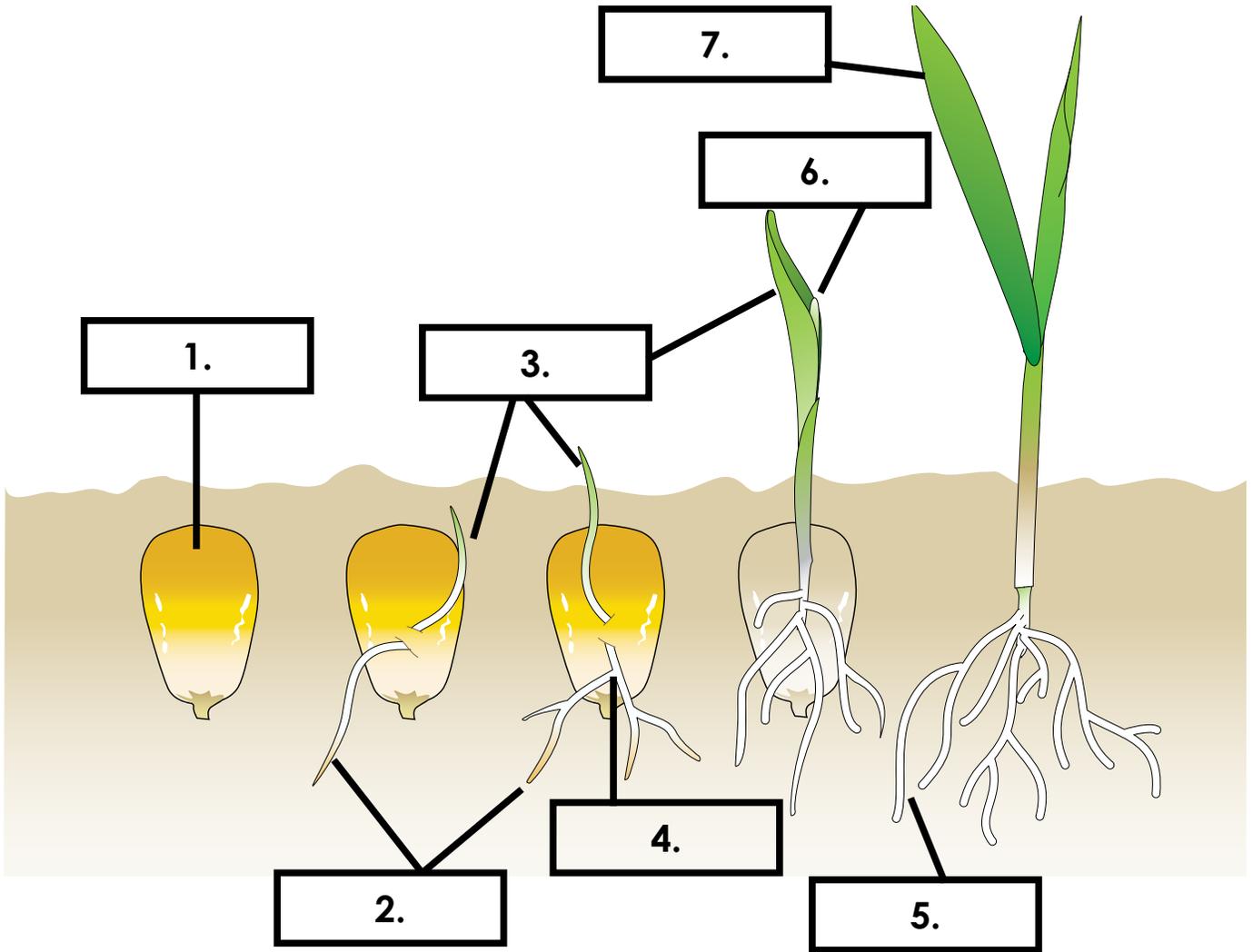
**Corn seed epicotyl:** region inside the coleoptile that forms the leaves and stems

**First leaf:** the true first leaf comes from the inside of the coleoptile and is distinguished by have a rounded tip. All other future leaves have a pointed tip. This first leaf will fall off as the plant is growing and the stem is enlarging. By six leaves the first leaf is hard to find.

## Parts of an Emerging Corn Plant



### Parts of an Emerging Corn Plant



1.

2.

3.

4.

5.

6.

7.



## Seed Germination Investigation

Today's Date:

Research Questions:

Type of Data:

Variables:

Control:

Prediction/Hypothesis:

### My Seed's Progress

Date:	
Date:	
Date:	

**CONTROL:**

**CONTROL:**

**CONTROL:**

### My Seed's Progress

Date:	
Date:	
Date:	

**CONTROL:**

**CONTROL:**

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Date:	
Date:	
Date:	

**VARIABLE:**

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Date:	
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**VARIABLE:**

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## Corn Plant Structures and Functions



**Tassel:** the male part of the corn plant that contains the pollen. The tassel is on top of the corn plant.

**Leaf:** a full grown corn plant has 16-19 leaves although 5 leaves fall off by the time the plant tassels. The leaf provides the surface area where light is intercepted and photosynthesis takes place.



**Silk:** a hollow tube that comes from the female part (ovary) on the ear. The silk grows outside of the husk until the pollen lands on the silk and then moves down silk tube to fertilize the ovary to form the seed. Each ear has one silk strand for each kernel on the ear.

**Husk:** leaf like structure that wraps around the ear for protection.

**Ear:** the structure that contains the kernels that are forming after fertilization. The female part of the corn plant.

**Kernel:** it is the corn seed with one main function; to make another corn plant.



**Node:** a place on the stem where growth occurs. Leaves, roots, ears, and tassels form from nodes.

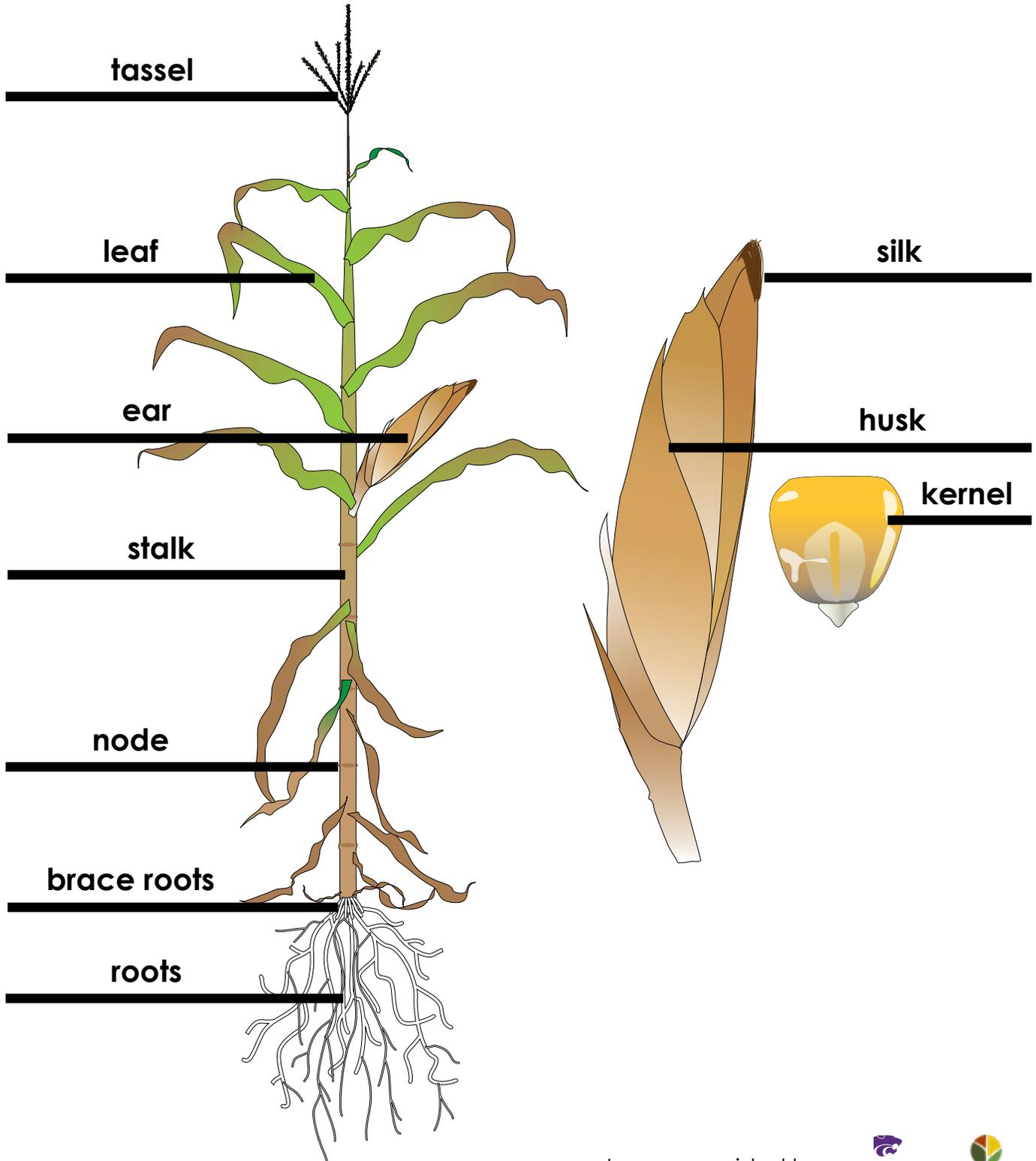
**Stalk:** the main body (stem) of the corn plant. Stalks have to be sturdy to support the weight of the corn ears and provide pathways for the nutrients to move up and down the plant.

**Brace root:** roots that form above ground one the sixth node (the first five nodes are below ground where other roots are formed) Grow from the node and then down to the soil and keep the plant standing upright.



**Roots:** grow underground and bring water and nutrients to the rest of the plant.

## Parts of a Corn Plant



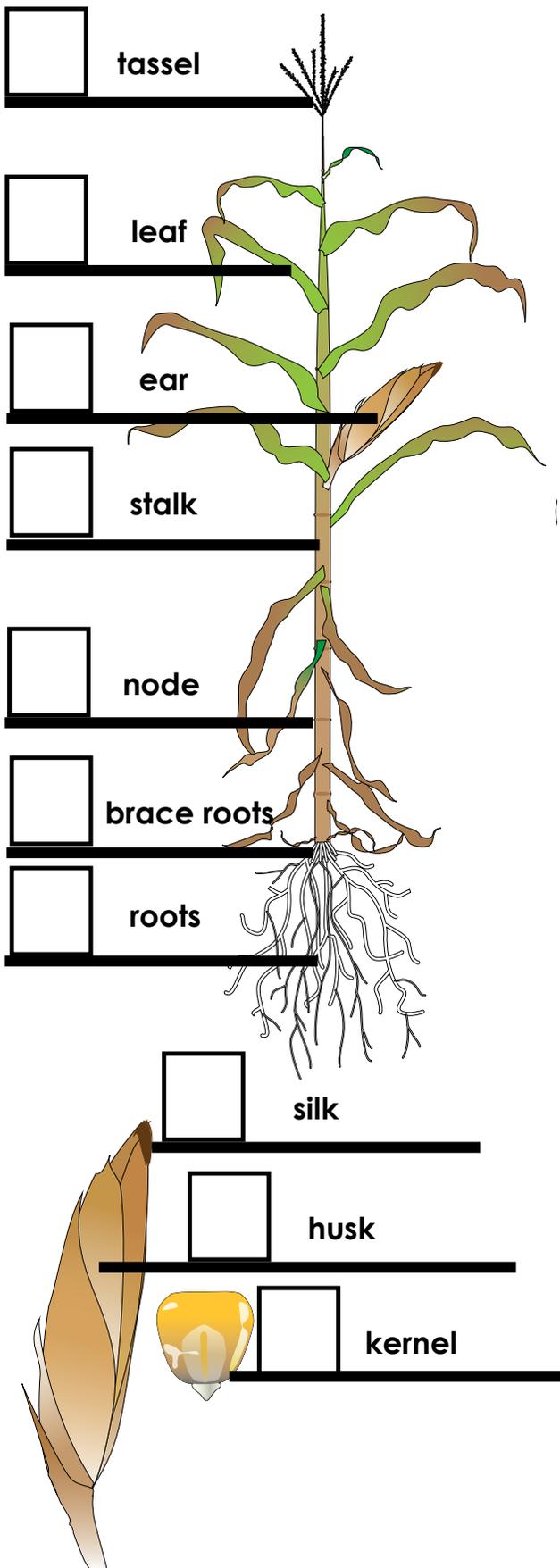




## Test What You Learned

*In the blanks below, label the parts of the corn plant.*

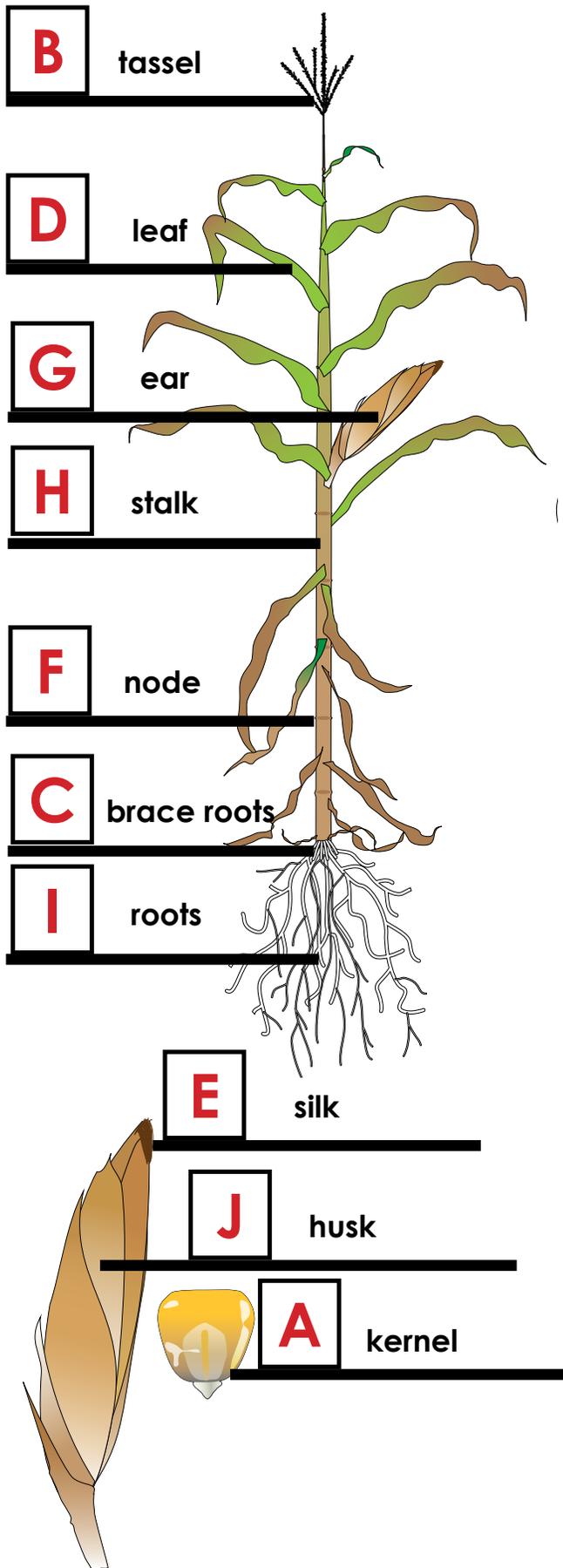




## Test What You Learned

Match the functions with their plant structures.

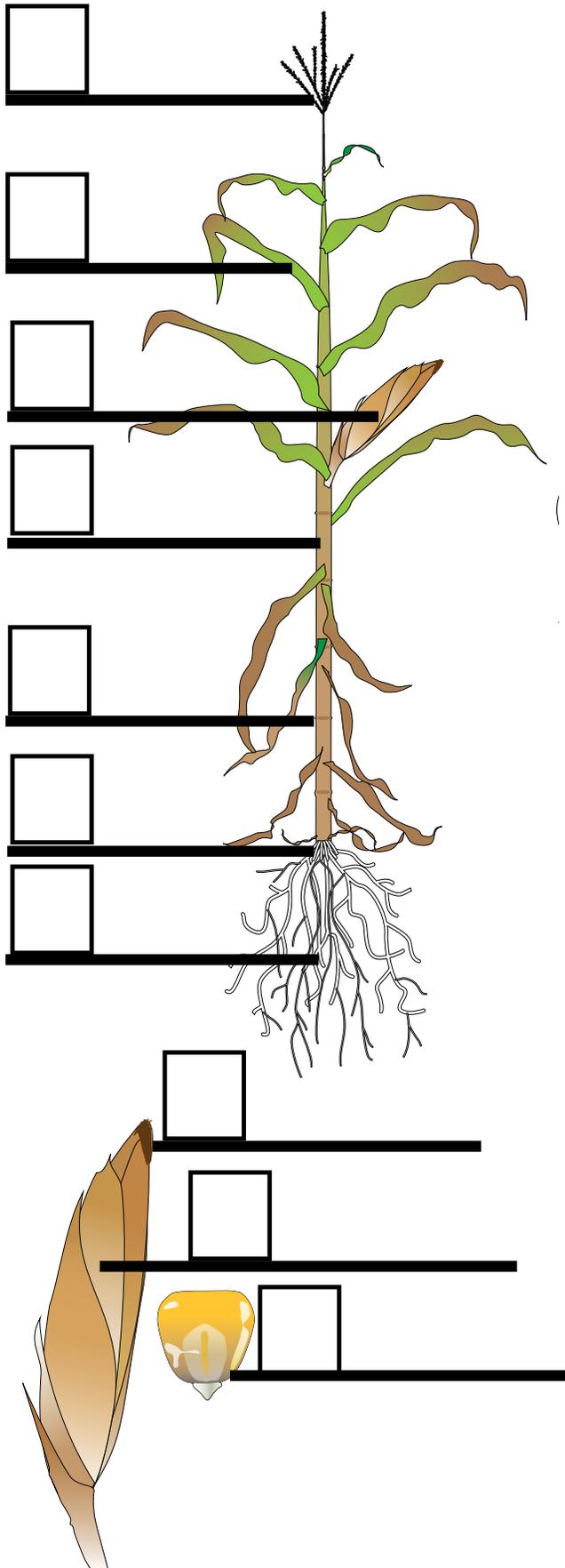
- A.** it is the corn's seed with one main function; to make another corn plant.
- B.** the male part of the corn plant that contains the pollen.
- C.** roots that form above ground to keep the plant standing upright.
- D.** provides the surface area where light is intercepted and photosynthesis takes place.
- E.** collects pollen and carries it inside to the female part of the plant to grow a seed.
- F.** a place on the stem where growth occurs.
- G.** the female part of the plant that contains the kernels that are forming after fertilization.
- H.** the main body (stem) of the corn plant.
- I.** grow underground and bring water and nutrients to the rest of the plant.
- J.** leaf like structure that wraps around the ear for protection.



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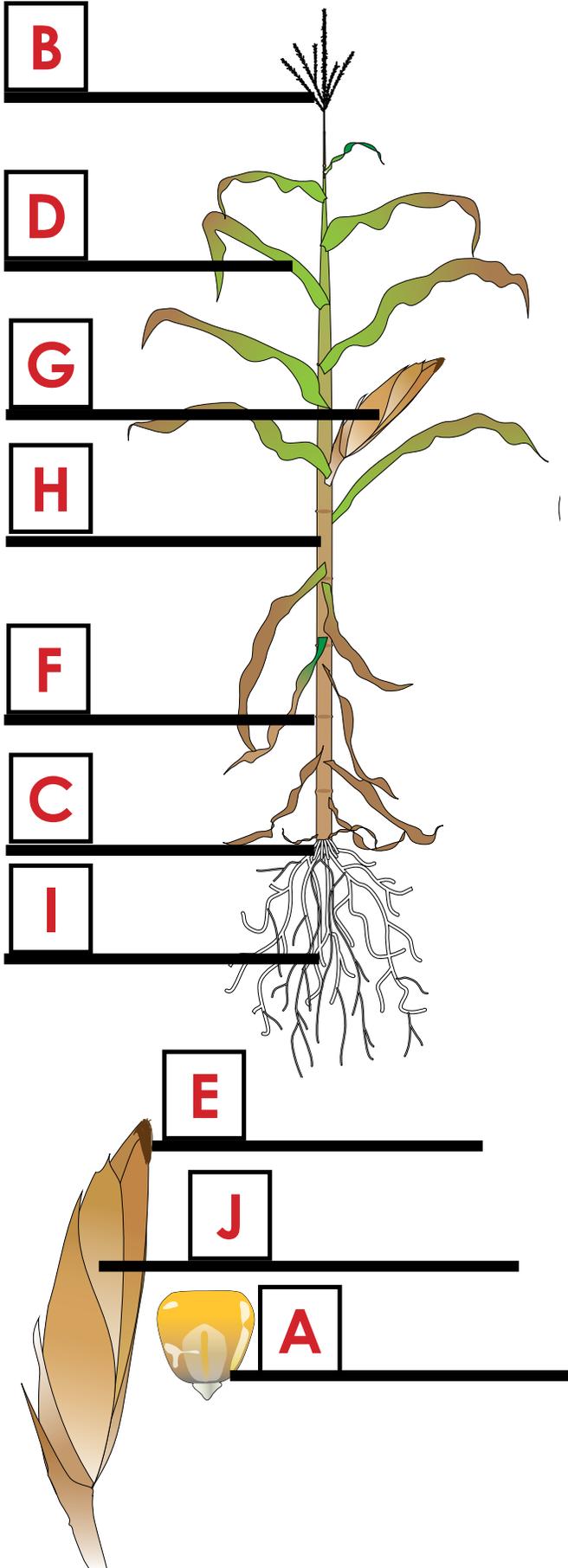
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## Test What You Learned

Match the structures and their functions to the correct place on the corn plant.

- A.** Kernel: it is the corn seed with one main function; to make another corn plant.
- B.** Tassel: the male part of the corn plant that contains the pollen.
- C.** Brace root: roots that form above ground to keep the plant standing upright.
- D.** Leaf: provides the surface area where light is intercepted and photosynthesis takes place.
- E.** Silk: collects pollen and carries it inside to the female part of the plant to grow a seed.
- F.** Node: a place on the stem where growth occurs.
- G.** Ear: the female part of the plant that contains the kernels that are forming after fertilization.
- H.** Stalk: the main body (stem) of the corn plant.
- I.** Roots: grow underground and bring water and nutrients to the rest of the plant.
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