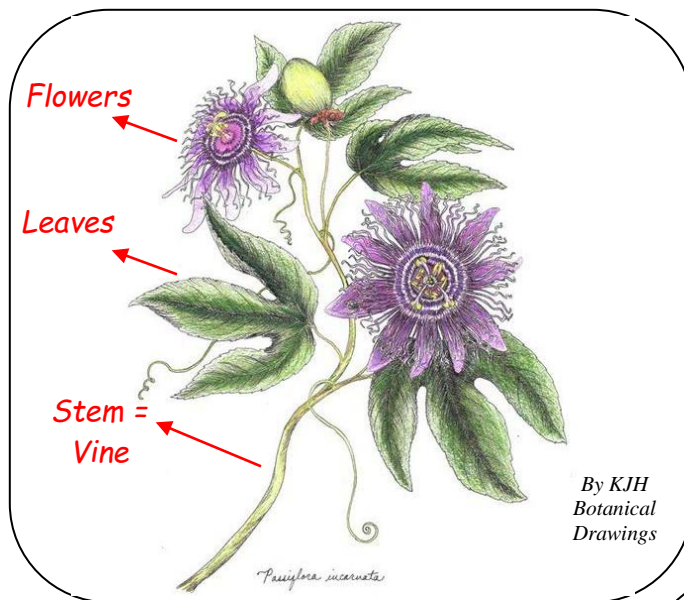


Parts of a Plant: Passion Flower Vine ANSWER SHEET



Go into your outdoor classroom to find the passionflower vine with a flower on it.

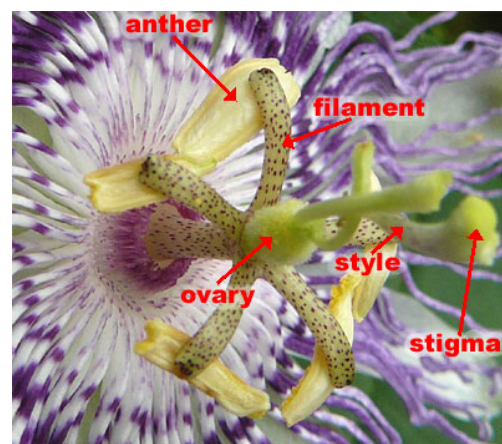
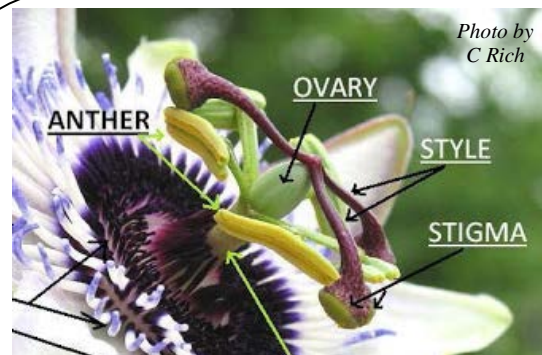
1. Draw a picture of the plant.
2. Label its parts including its:
 - flower,
 - leaves,
 - roots, and
 - stem.

3. Draw a picture of the flower.

4. Label the parts of the flower that you can see including its:

- anther,
- filament,
- ovary,
- ovules,
- pistil,
- stamen,
- stigma, and
- style.

5. Describe the flower's color, shape, and smell. How does this help the plant?



The flower has white, purple or blue petals with long, wavy, striped white and purple hairs that lay on top of the petals. In the middle of the flower, five filaments with flat yellow anthers on the end form the stamen, and the light green ovary sits in the middle with three styles with stigmas on the end coming out of the top of the ovary forming the pistil.

6. What do the stamen and the pistil (in the flower) do to help the whole plant?

The stamen is the male part of the flower that includes the filament (tube) that holds the anther which produces pollen—the male genetic material (sperm) for the plant. The pistil is the female part of the flower that includes a sticky stigma that collects the pollen, a style (tube) that the pollen travels down to get to the ovary that holds the ovules—the female genetic material (eggs) for the plant. The ovules turn into seeds to help the plant produce new plants.

7. How does the stem, including the phloem and xylem, help the whole plant?

The stem contains tubes (like straws) called phloem and xylem. The xylem carries water up from the roots to the leaves and flower of the plant. The phloem transports sugar and minerals (food) from the leaves down the stem to the roots.

8. How do the leaves use photosynthesis to help the whole plant?

The leaves collect and store energy from sunlight. They use the energy to combine water (from the roots) and carbon dioxide (from the air) to create sugars (food) for the plant, and then they release oxygen in the air. This process is called photosynthesis.

Pull up a **weed!** Use a magnifying glass to examine its **roots**.

9. Sketch the roots in the box.

10. Is there a solid central taproot or a network of smaller fibrous roots?

Depends on the root...see examples

11. What do the roots do to help the whole plant?

The roots suck up water and minerals from the soil and send them to the rest of the plant to help the plant survive.

12. Do you think xylem and phloem are also in roots? Explain your answer.

The xylem and phloem have to be in the roots to help move the water and minerals from the soil to the stem and the rest of the plant.

