

Leaf and Stem Anatomy Study Guide

1. What is the main purpose of a leaf? (How does the leaf help the plant to survive?)
2. What are the external structures of a leaf and their corresponding functions?
 - a.
 - b.
 - c.
 - d.
 - e.
3. What are the internal structures of a leaf and their corresponding functions?
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.
4. List the vein patterns of leaves and draw a picture of each.
 - a.
 - b.
 - c.
 - d.
5. Compare the vein patterns of monocots and dicots.
6. What are the major types of leaves? Draw a picture of each.
 - a.
 - b.
 - c.
7. List the major leaf arrangements. Draw a picture of each.
 - a.
 - b.
 - c.
 - d.
 - e.

8. List the four functions of the stem.

- a.
- b.
- c.
- d.

9. What are the external structures of a plant's stem and where are they located? It might be helpful to make a drawing.

- a.
- b.
- c.
- d.
- e.
- f.

10. What are the internal structures of a plant's stem, their corresponding functions, and where are they located? It might be helpful to make a drawing.

- a.
- b.
- c.
- d.

11. Tissues in the stems of monocots and dicots are arranged differently. How so? Draw a picture of each arrangement.

- a.
- b.

12. What is the difference between heartwood and sapwood? Where are they located in the stem?

13. How does one determine the age of a tree?

14. List the different types of specialized stems. Give a specific example of each. Draw a picture of each.

- a.
- b.
- c.
- d.
- e.