

Plant Material



What You'll Need:

- 1 seed
- 1 leaf
- 1 flower

Note: The seed, leaf, and flower will be collected during step one of the procedure so you do not need to worry about having them before beginning the experiment.



What You'll Do:

1 With a parent, go for a walk at a local park or around your neighborhood. As you go, look around for a flower, a leaf, and a seed that you can take back home with you for the experiment. Take a moment to write down and describe the location where you find each plant part that you collect.

Note: make sure to be respectful of other people's property as you're collecting your plant material.

2 Once you've collected your plant material return home and take a moment to draw each plant part that you collected.

3 For this experiment, you will be learning which of these plant parts contain the most essential oil. Before beginning the experiment, take a moment to write a few predictions. Which of these plant parts will have the strongest scent? Which will have the mildest? Which will leave the strongest smelling residue on your fingers? Which will leave the mildest?

4 Smell the seed and take a moment to describe its scent. Is it strong or mild? Does it smell sweet, bitter, tangy, or earthy?

5 Next smell the leaf and write a description of the aroma. Is it strong or mild? Does it smell sweet, bitter, tangy, or earthy?

6 Finally, smell the flower and write down a brief description of its scent. Is it strong or mild? Does it smell sweet, bitter, tangy, or earthy?

7 Repeat steps four through six, but this time rub the plant material between your fingers and smell the residue it leaves behind. *Note: you will want to wash your hands between each plant part in order to prevent mixing the scents together.*



What Does It Mean?

An essential oil is a substance produced by plants that is used for a variety of reasons, such as for protection. Additionally, these oils give plants their specific scent. In other words, a lemon smells like lemon because of its essential oil. The amount and properties of the oil depend on the type of plant and which part of the plant the essential oil is sourced from. dōTERRA sources essential oils from a variety of plants and plant parts. For example, dōTERRA sources Lavender essential oil from the flower, Cardamom essential oil from the seed, and Eucalyptus essential oil from the leaf.

Essential oil can be released from a plant in small quantities by rubbing the plant material between your fingers. This causes the oil sacs in the plant to burst, releasing the essential oil and causing your fingers to smell like the plant you were holding. Certain plant parts contain more essential oil than others, which may cause the residue to smell stronger in one plant part than another. In general, seeds contain the most essential oil followed by leaves and, finally, flowers have the least.



What You Discovered:

Compare your predictions to what happened. Which plant part smelled the strongest when smelled directly? Which smelled the mildest? Which residue left on your fingers smelled the strongest? Which smelled the mildest? Why would the residue of one plant part smell stronger than the residue of another?



What to Do Next:

- Go on another nature walk and collect different seeds, leaves, and flowers than you did during your previous nature walk and repeat the experiment with them.
- Try the experiment using citrus fruit peels or other produce parts that you may have around the house.

Note: Make sure to record your predictions and results for each plant part you test.

Prediction(s):

Result(s):