

What Makes an Orchid an Orchid?

Critical Thinking Questions

Orchids can come in a variety of shapes, sizes, colors, and scents. They can grow in soil, on trees, or even on rocks. Orchids' flowers, much like the flowers of many other plants, play a vital role in the Orchid's lifecycle. Orchid flowers attract pollinators to the reproductive structures by using their bright colors and specially adapted labellum.

When a pollinator lands on a flower, the orchid lip guides it to the pollinia. This sticky ball of pollen attaches itself to the pollinator. To exit the flower, the pollinator must then walk past the orchid's stigma, which will gather any pollinia that the pollinator got from other orchids. This unique pollination process requires that the orchid's reproductive structures be kept in close proximity. To do this, orchids have developed a unique structure called a column that combines both the pistil and stamen.

Despite their wide variety of colors, patterns, shapes, and scents, all orchid flowers share a few key traits that we can use to help identify them.

First, review your What Makes an Orchid guide to learn key terms and identify the different orchid parts with *Bletia purpurea*, a terrestrial orchid that can be found in Latin America and the West Indies.

Take special notes on the three identifying features: the sepals, the petals, and the column. These three features are used by all orchids to reproduce and attract pollinators, although they may look different on different orchid species.

After reviewing the What Makes an Orchid an Orchid Guide, complete the worksheet questions using and make your own paper orchid flower!

You can share images of your paper orchids with us at gardens@si.edu!

Complete the questions below to see if you know how an orchid flower is different from other flowers.

1. The third petal of an orchid flower, called a *lip* or *labellum*, is a highly specialized structure unique to orchids. What overall function does an orchid's flower play in the orchid lifecycle? How does the shape of the Orchid's lip support the flower's function? Describe the lip of the orchid flower that you're researching. How does it perform this function?
