



# All About Ferns: A Resource Guide

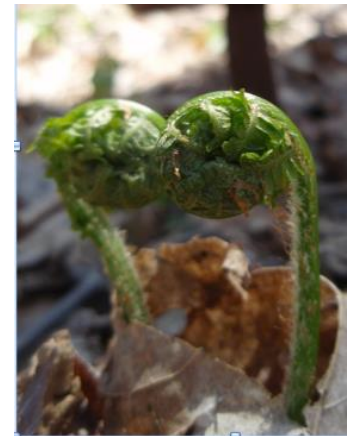
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## What Makes a Fern a Fern?

Ferns can come in all shapes and sizes, from the towering tree ferns of Australia to the delicate cliff ferns of North America. There are, however, a number of general traits you can look for to determine if a plant is a fern.

### Fiddleheads

First, there's the distinct way in which many fronds, or fern leaves, unfurl. Young fronds, called fiddleheads because of their striking resemblance to the head of a violin, start out tightly curled at the base of the root. They then slowly unroll themselves much like a scroll unrolls as they grow. This special way of growing is a response to light. The cells in the fiddlehead that are exposed to light will get bigger and grow, causing the frond to lengthen and unfurl.



### Spores

Another way to tell if a plant is a fern is to look at its reproductive structures. If it has a flower, fruit, or seed- it's not a fern! All ferns, and many fern relatives, reproduce using spores, or tiny living single cells. Typically, reproductive fronds will produce sori, or spore dots on the undersides of their leaflets. Within these sori, hundreds of thousands of spores are developed in little packets known as sporangia, and released when mature.

The shape of these sori varies a great deal between species. Many species have circular or kidney-shaped spore dots, such as the Marginal Woodfern (pictured below middle), however some have more interesting shapes. In the Purple-stemmed Cliffbrake (below left), the edges of the fern's leaflets fold over to form a

