

Pressed Flowers Collection Kit



HOME SCIENCE TOOLS
THE GATEWAY TO DISCOVERY

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Introduction

Start enjoying the beautiful science and art of botany with this pressed flower collection kit! From your backyard to a mountain meadow, the wonders of the plant world are waiting for you to collect, identify, and press them. Display the pressed flowers in an herbarium or use them for crafts.

The following materials are included in this kit:

- *Plant Press*
This 9"x12" press is large enough to dry dozens of flowers at once.
- *Plant Mounting Supplies*
Make an herbarium (pressed plant collection) using cardstock, plastic protectors, and plant mounting labels. Put your pages in a three-ring binder. Extra cardstock is included for creating greeting cards.
- *Double Lens Magnifier, 5x/10x*
Use just one lens for 5x magnification, or look through both for 10x.
- *Wildflowers Golden Guide*
This pocket-sized field guide is perfect for identifying the flowers you find.

Collecting Plants

It is best to collect your plant specimens in the middle of the day after all the morning dew has evaporated. Avoid collecting on a rainy day or just after a rain; specimens with no surface moisture are the best.

For an herbarium, be careful not to collect abnormal flowers or leaves (much smaller or larger than the average, a different shape, etc.). It's easier to identify your plant if you collect an average specimen.

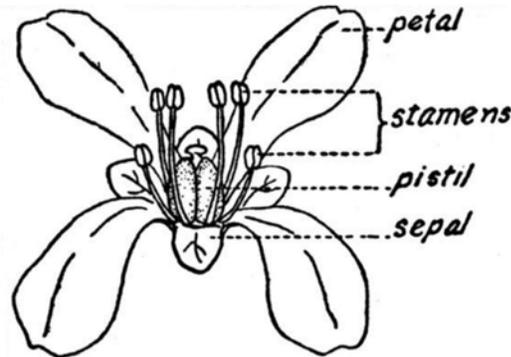
Use a pocket knife or a pair of scissors to cut plant stems, rather than trying to break them off. If you can't put the plants in your press right away, put them in a plastic bag with a few drops of water or a damp paper towel – this will keep them fresh for a short time until you can press them.

Parts of a Flower

Identifying plants will be easier if you know about the main parts of a flower. We all know how to find the colored *petals* of a flower, but beneath the petals, there should be smooth, leaf-like projections called *sepals*. The male part of the flower is called the *stamen*; there are usually

multiple stamens on each flower. The long stalk of the stamen is called the *filament*. At the top of the filament is the *anther*, which holds pollen. The female part of the flower is called the *pistil*. At the top of the pistil is the *stigma*, which collects pollen and carries it down through its hollow body, called the *style*, to the *ovary*, where the pollen fertilizes the flower's eggs. See pages 10-11 of the *Wildflowers Golden Guide* to learn more.

You can use a sharp knife or scalpel to cut down the length of the style and look inside the ovary with your magnifying glass. If you have a low power microscope, you can use it to examine each flower part in even more detail.



Observe your plant specimen carefully before you begin to press it. Use the magnifying lens to examine the leaves and small parts of the flowers. How many petals, sepals, and stamens does the flower have? Do the leaves have *parallel* veins or do they branch out from a center vein (*palmate*)? Do they have smooth edges or toothed? All this information will help you identify your flower using the Golden Guide.

Making an Herbarium

For hundreds of years scientists and plant lovers have preserved dried plants for study in herbariums. (The great taxonomist Linnaeus had 14,000 specimens in his herbarium!) Once a plant is pressed, mounted, and properly protected, it is a work of art with great scientific value. Use these instructions to make your own herbarium with the plants you find and press. (Instructions for pressing are included with the plant press.)

Before you mount your plants, you need to decide how to arrange them on the page.

1. Lay your specimen out so it looks attractive and the main features of the plant can be seen clearly. For large specimens, you may have to bend the stems in a sharp zigzag pattern so they will fit on the page. You can also cut the plant in half and show the top half and bottom half side by side.

2. It is a good idea to show both sides of the leaves, since the top and bottom often look very different.
3. Leave space in the bottom right corner of the page for the identification label.
4. You can also leave space to glue a small envelope to hold seeds and other small parts.

There are several methods you can use to mount your specimens, but one of the most common is called the glass-plate method. Traditionally botanists used glass plates for this, but you can use an aluminum cookie sheet.

1. Dilute some white glue (like Elmer's) with water and spread it in a thin layer over the cookie sheet. For delicate specimens use thinner glue than for thick, woody stems.
2. Carefully set your specimen on the cookie sheet so all parts touch the glue. If you need to, blot the plant on a sheet of newspaper before placing it on the plant mounting page. Gently press down on the specimen with a paper towel to fix it to the page and blot up any excess glue.

3. Stick a label to the bottom right corner of the page. Your label may look something like this.

Date: <u>05/25/2006</u>
Scientific Name: <u>Castilleja coccinea</u>
Common Name: <u>Indian Paintbrush</u>
Plant Family: <u>Scrophulariaceae (Figwort)</u>
Location: <u>Basin Campground, Red Lodge, MT</u>

4. Cover each page with wax paper and stack them with cardboard in between. Put a weight on top of the stack and leave overnight for the glue to dry.
5. When the glue is dry, carefully slide each page into a plastic page protector. You can store the finished pages in a three-ring binder.

Art Projects

Pressed flowers make a beautiful addition to many art projects. Make greeting cards with the extra cardstock in this kit, or mount and display flowers under glass in a picture frame. Try using contact paper to make place mats, and make flower designs on "peel-and-stick" lampshades from a craft store (stick a layer of rice paper over the flowers). Bookmarks are easy, too – arrange flowers between two pieces of plastic transparency paper, put a towel over it and iron the two pieces together through the towel. You can also use your flowers with paper, candle, or soap-making kits.