

PLANTS: GUIDE TO OBSERVATION

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An Art Skills Tutorial

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JOURNALING

Leonardo Da Vinci made many careful and insightful observations about nature and how we perceive nature.

Dover has published Leonardo da Vinci's Notebooks, making its ownership very affordable.

Make this wonderful work an important addition to your school library.

Allow your students time to browse the pages after you have introduced some of the concepts in these lessons.

The notebooks are organized in bite-sized pieces with many illustrations of the point being discussed.

Leonardo Da Vinci's notebooks are a rich demonstration of the connection between art and science.

Use his inventions to pique your students' interests. They are excellent openings to discussions of simple machines, physical forces, geology, and history.

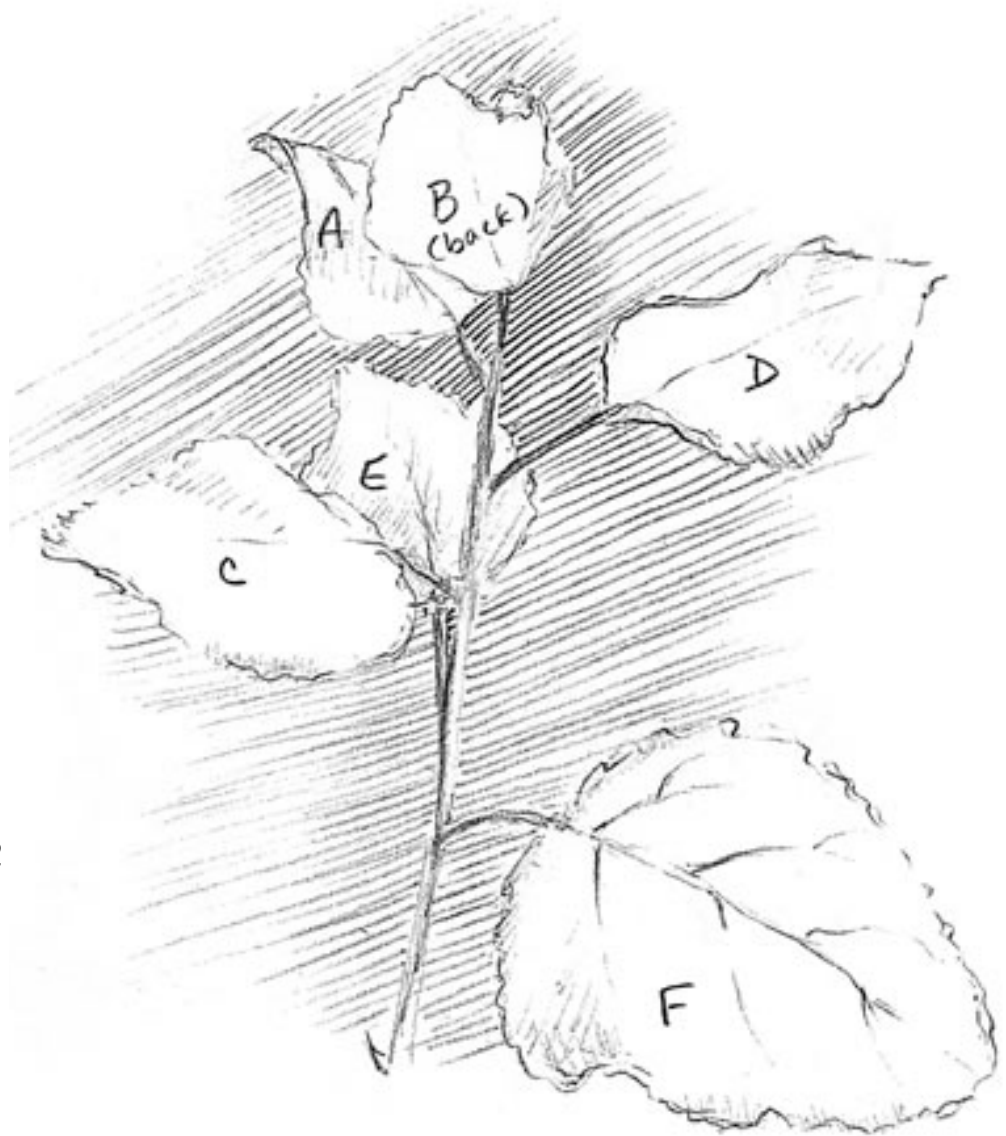
And, to top it all off, they are superb examples of journaling.

POINTS TO CONSIDER WHEN JOURNALING

- *Note the structure of the plant.*
- *The advantage of various points of view.*
- *The main ideas you would like to record.*
- *How much and what specific detail you want to record.*
- *How you might use negative shapes to assist you.*
- *When visual shorthand and schematic drawing will serve best in recalling what you saw.*
- *When naturalistic drawing will serve best to assist in recalling what you saw.*

SAME PLANT FROM DIFFERENT VIEWS IN SPACE

The same plant will look very different from different perspectives. When journaling take the time to look at your subject from many views before deciding which one best captures what you would like to record.



The side view of the Cottonwood allows us to see certain aspects of its structure.

Compare and contrast the branching pattern of the leaves with that of the veins of the leaves.

What is the pattern of branching: alternating or opposite?

How does the distance vary from the central vein to each leaf edge?

What is the branching pattern of the veins drawn on one of the leaves?

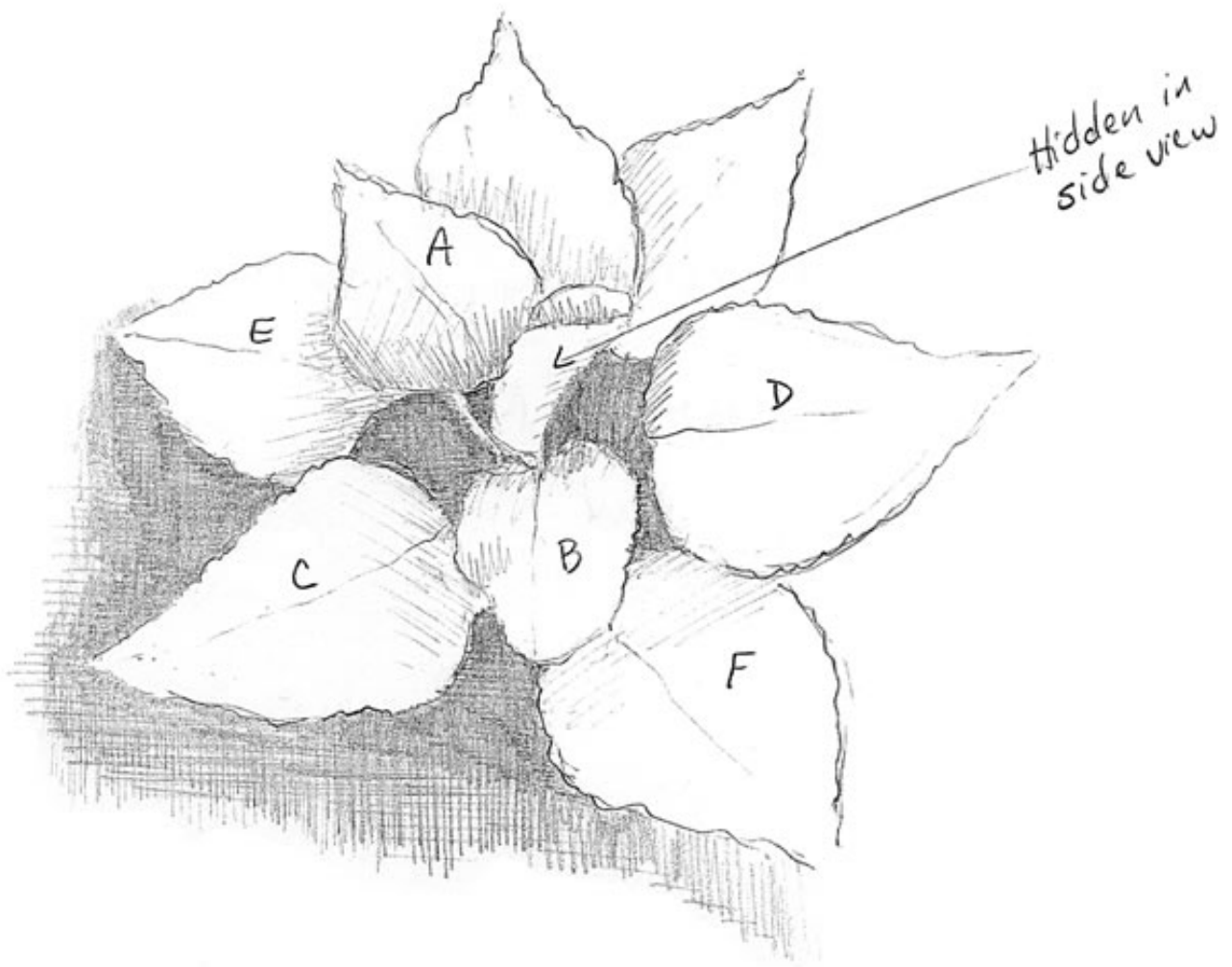
When might it be useful to note the shape of the negative space, that is, the space between the parts of the plant?

Observe how the teeth change from the wider base of the leaf, toward the stem.

Are they bigger, smoother or more pointed at different points of the leaf?

TOP VIEW OF COTTONWOOD

This is the same plant previously viewed from the side.



The top view of the Cottonwood provides a basis for making new observations.

How does viewing from the top show the branching pattern of the leaves?

What might be the advantages of this point of view?

The teeth on the edges of the leaves are suggested by using a wiggly line. Here is where a line, varying from thick in the indentations to thin between, can be a convenient shorthand.

How do the highly contrasting positive (leaves and stem) and negative (spaces between the leaves and stem) shapes affect how the viewer understands the drawing?

What are the benefits of such an approach?

SAME PLANT AND VIEW OVER TIME

Cottonwood leaf newly picked



*Pick up your leaf and study it before
picking up your pencil.*

SHAPE OF A LEAF

Where is it widest?

Does it come to a point?

How long is the stem in relation to the leaf?

Is it toothed or smooth?

Are there lobes?

If so, how many?

PATTERN OF THE VEINS

Look at the front and back.

Compare and contrast how much the veins are raised on front and back.

Are they more pronounced on the front or back?

Is their branching pattern alternating or opposite?

Compare the relative thickness of the main vein with the secondary and tertiary veins.

Compare these to the thickness of the stem.

EXERCISE: DRAWING A LEAF OVER TIME

Draw the stem and the central vein of the leaf, its central axis.

Draw some of the main veins.

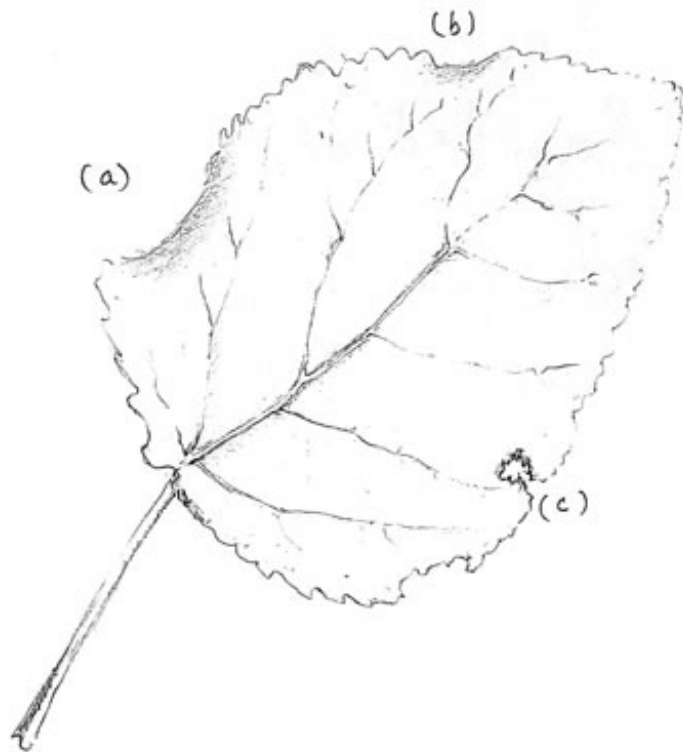
Sketch in the edge of the leaf by carefully checking where the veins end up at the outer edge.

Turn the leaf to better observe why the leaf look as it does.

NEWLY PICKED LEAF

For example, examine where the leaf curves away from the front (a and b). The curve could be caused by a cut or rip, or by a fold.

Use shading to indicate a rounded edge. For ripped edges use a distinctive line (c).



Check over the result by backing away from the detail to see the whole shape and major components.

LEAF AFTER SEVERAL HOURS

*Make adjustments as necessary.
Recheck your study points from Step 1.
Adjust as required.*



Cottonwood leaf 3-5 hours after being picked

TIP!

For consistency, place the leaf in the same position the freshly picked leaf was in.

This will allow you to compare the changes to the same parts of the leaf.

This is analogous to holding a variable constant in scientific experiments.

Check your viewpoint.

A small change in position can make a big difference!

POINTS OF COMPARISON

Once again, pick up your leaf and study it before picking up your pencil:

What has changed most noticeably?

Has the width changed?

How has the point changed?

Has the angle of the stem joining the leaf changed?

What has happened to the “teeth”?

How does the leaf appear near the veins?

Sketch in the main veins, taking note of the new angle of the stem and the edges.

Use indentations from curling and/or imperfections as your landmarks.

CHANGES IN THE DRIED LEAF

The main vein has become more curved due to the curling as it dried.

The stem continues this curvature.

Most of the “teeth” curled up or down; they did not remain flat. You can indicate this curling by shading the teeth’s edges.

To avoid straight lines where there are none use small circular strokes. This will also create a crinkly effect.

Shadows appeared next to many of the veins as the leaf changed from the relatively flat plane when first picked.

Look at the pattern of the small buckles.

Loose pencil work gives the flavor without photorealism.

The leaf darkened a little around the imperfections and slightly less in the areas along the veins or trauma.

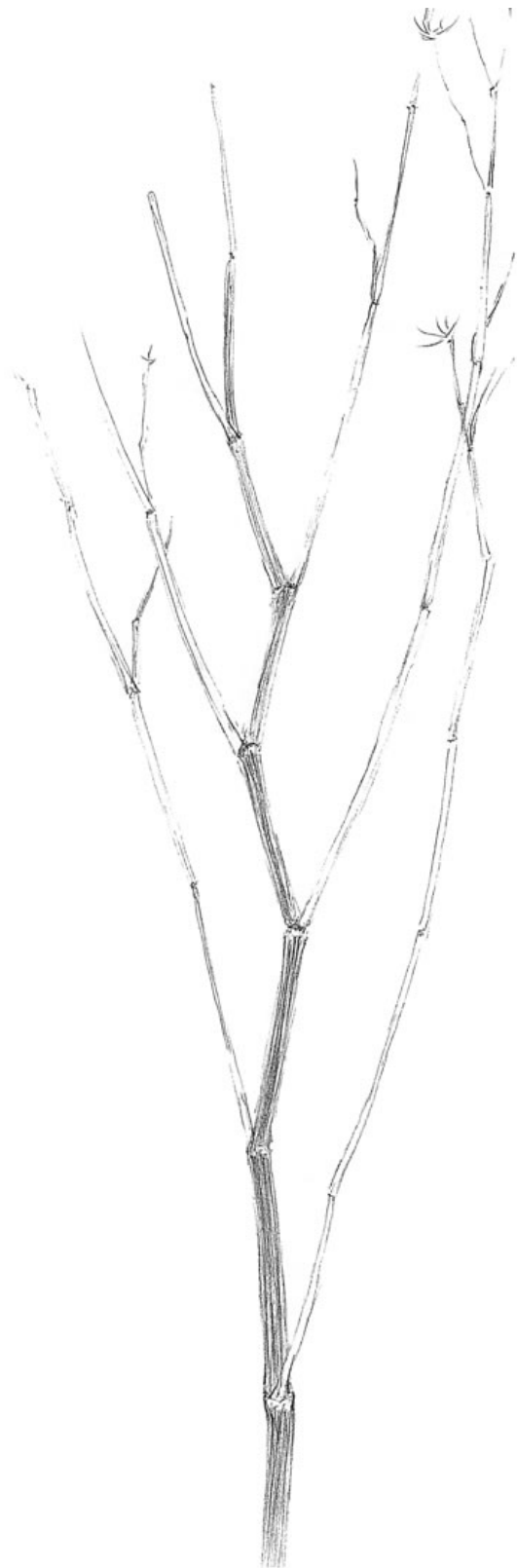


PLANT STRUCTURE — PARSLEY

*How does this plant
balance itself?*

*Notice the texture on
the stem.*

*Notice the thickness at
the joints.*



BRANCHING — PARSLEY

Analyze the branching pattern.

Are the branches opposite each other or alternating?

