

Young Botanist Backyard Edition

Focus Questions:

1. Can art be science?
2. How do we observe science, interpret it, and communicate it to others?
3. Why is it important to share science with others?

Objective

Students carefully observe plants and record observations.

Preparation

1. Gather materials and choose an area with lots of different plants; big and small. If you're doing this at home you can bring house plants into one room.
2. The ABC's of Scientific Drawing Accurate, Big, Color, Detailed, Explained
3. Review the Art vs. Scientific Illustration example. Answer questions.
4. Have the Leaf Descriptions page ready to give students the botanical language to describe their plant

Delivery

Instruct students to find a plant, draw it, and record their observations. Challenge students to record as many details about the plant as possible considering where it lives, shape, flowers, smell etc.

Extension: Research - have students enter in the leaf descriptions into Google and see if they can identify the plant they drew

Debrief

Is art science? Why or why not?

Why is a scientific drawing and observations important for science and restoration?

What is the purpose of naming different leaf shapes, patterns, edges, and leaf arrangements?

Extension: What descriptions helped identify your plant?



Theme

Creative Expression, Ecology: Biodiversity

Age

2nd and up

Duration

15-20 minutes

Materials

- ◊ Paper, pencil, colored pencils, markers
- ◊ Art vs. Scientific Drawing Doc
- ◊ ABC's of Scientific Illustration

Standards

2-LS4-1 4-LS1-1

Young Botanist

Spanish Key Words

Young Botanist

Find a plant, draw it and record your observations

Record as many details about your plant as possible

Where does it live

What shape are the leaves

What color are the flowers?

Find a partner

Try to find your partners plant based on their drawing and description

Botánico joven

encuentran una planta, dibujarla, y registrar sus observaciones

Registre tantos detalles sobre su planta como sea posible

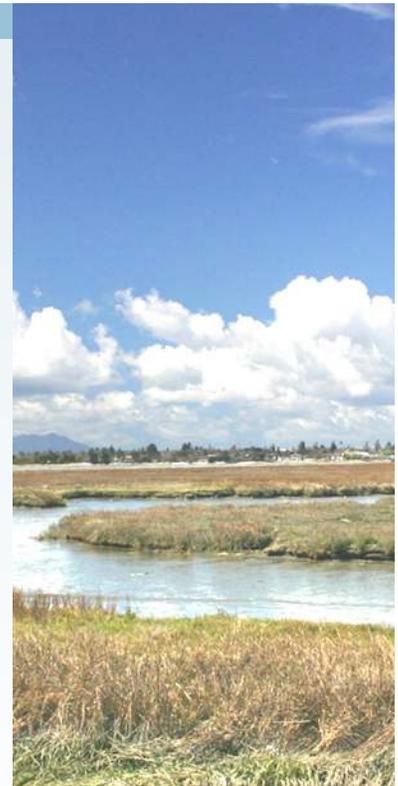
¿Dónde vive la planta?

¿qué forma tienen las hojas?

¿qué color tienen las hojas?

Trabajan en parejas

Trate de encontrar la planta del pareja segun su dibujo y descripción



Theme

Observation Game, Scientific Drawing

Age

2nd and up

Duration

15-20 minutes

Materials

- ◊ Paper/notebooks (seed notebooks)
- ◊ pens or whiteboards and dry erase markers.

Standards

NGSS

2-LS4-1 4-LS1-1

VENATION	SHAPES	ARRANGEMENT	MARGINS	ARRANGEMENT ON THE STEM
 <p>pinnate</p>	 <p>linear</p>  <p>obovate</p>  <p>ovate</p>	 <p>simple</p>  <p>palmately compound</p>	 <p>entire</p>  <p>crenate</p>	 <p>alternate</p>
 <p>parallel</p>	 <p>pinnately lobed</p>  <p>palmately lobed</p>	 <p>pinnately compound</p>	 <p>dentate</p>	 <p>opposite</p>
 <p>palmate</p>	 <p>lanceolate</p>  <p>reniform</p>  <p>sagittate</p>	 <p>bipinnately compound</p>	 <p>serrate</p>  <p>lobed</p>	 <p>whorled</p>

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The ABCs of Science Illustration

Accurate try and draw exactly what you see.

Big draw it BIG so people can see the details

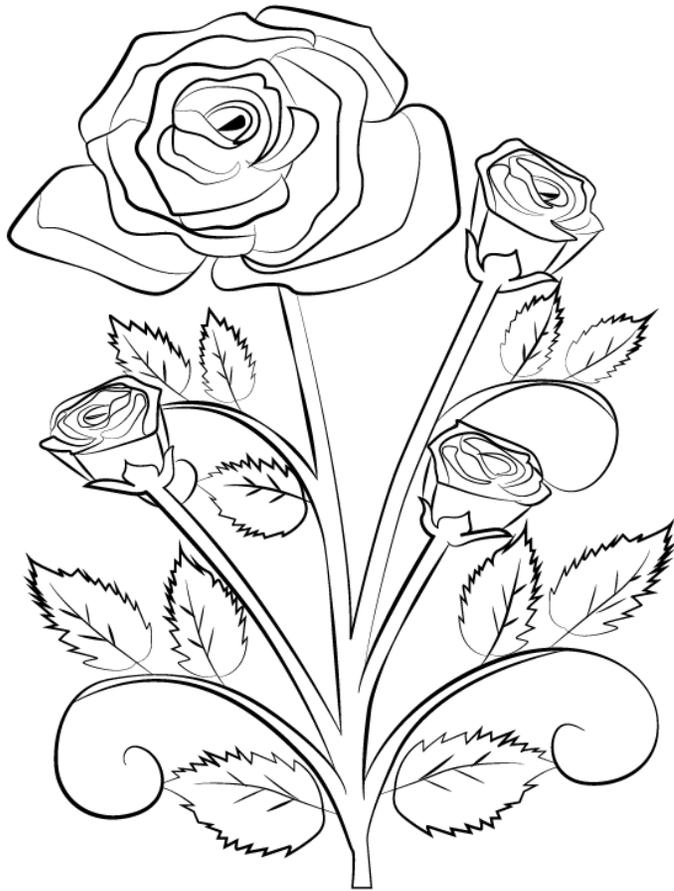
Colorful use as many colors as available to you

Detailed take your time, it's not a race

Explained describe the smell and touch of your specimen and label the plant parts you know.

Art vs. Scientific Illustration

How are these drawings different? When we think about the ABC's of scientific illustration, what are these pictures missing?



For more tips by step drawing visit us at www.drawingtutorials101.com



Samperia coriacea (Hieron.) V.A. Funk & H. Rob.