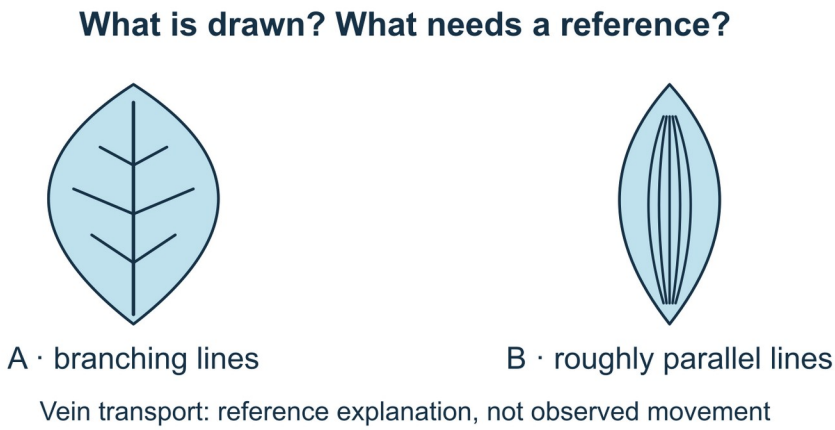
Compare two leaf diagrams

Which features are visible and which functions need a reference?

Compare two original leaf diagrams and distinguish visible lines from a biological function explained by a reference.

Explore | 10-20 minutes, or one pair | The supplied example, read or heard, Optional scrap paper and a pen or pencil

Start here Compare A, a broad leaf outline with a central line and branching side lines, and B, a narrow outline with several roughly parallel lines.



Visible pattern and reference explanation

1 Record the visible pattern

Describe line arrangements and outline shape before naming a plant. The drawings are simplified designs, not collected leaves or species records.

2 Use one reference fact

Leaf veins contain vascular tissue involved in transport. The visible pattern can be described in a diagram; its function is reference knowledge, not something the drawing alone demonstrates.

3 Make two kinds of label

Put ‘drawn feature’ beside a line you can see and ‘reference explanation’ beside the transport statement. Keep the categories separate.

4 Leave identification open

Write one question the diagrams cannot answer, such as the plant’s species or growing place. You can sketch another labelled model without answering it.

Original diagrams branching and parallel lines

A and B are constructed leaf diagrams; they are not photographs or full botanical identification keys.

• A: a broad outline with a central line and branching side lines.

• B: a narrow outline with roughly parallel lengthways lines.

• Vein transport is a reference explanation; no water movement is observed in either drawing.

What this example can show A line pattern can support a description, but these simple models do not identify a species or measure a leaf's function.

A different way

Choose between the descriptions 'branching' and 'roughly parallel', or direct someone to add a label. No plant handling is needed.

If you want to go further

Draw a third imagined leaf whose veins fork repeatedly. Label it as an invented model and explain why it is not a complete species identifier.

Something to notice

Which sentence described the diagram, and which relied on a reference?

Read or explore more

Horizon topic Leaf Veins

https://launchhorizonhq.com/learn/leaf-veins/

Horizon topic Plant Structures

https://launchhorizonhq.com/learn/plant-structures/

Horizon topic Biology

https://launchhorizonhq.com/learn/biology/

OpenStax, Rice University 30.4 Leaves

https://openstax.org/books/biology-2e/pages/30-4-leaves

OpenStax, Rice University 30.1 The Plant Body

https://openstax.org/books/biology-2e/pages/30-1-the-plant-body