

NOVA & MAYA - Learning Companion

Chapter 5: Mystery Plant Case Packet

Fictional evidence-evaluation activity - not a real-world plant-identification guide.

Before printing

- Print one-sided at 100% size. Print one complete set for each team.
- Color is not required. Every card is identified by number, title, and source.
- An adult should help whenever scissors are used. Cut only along the dashed borders.
- Keep the cards in numerical order. Reveal each card only when the Chapter 5 module directs you. When using a screen, zoom or cover the page so only the current card is visible. Never display a full page containing an unrevealed card.
- Do not replace this fictional case with a real unidentified plant, food, medicine, or safety claim.

What is included

- Eight Case File Cards
- Three text-only answer labels
- A five-step confidence scale with meaning anchors
- Three decision cards for ages 11-12

For the adult

Read NOVA's first answer as a line from the story case - not as your own claim. Let children test how confidence feels, then compare it with evidence. Encourage them to move their answer or confidence marker whenever a new clue genuinely changes their reasoning.

Some cards share a source. That is deliberate. Two cards repeating Source A do not become two independent sources. Older children should notice and explain the difference.

Reveal order: 1 -> 2 -> 3 -> 4 -> 5 -> 6 -> 7 -> 8

Case File Cards 1-2

Cut along the dashed borders. Keep the source line attached to each card.

CARD 1 - OBSERVATION REPORT

Direct observation - no database used



Simplified fictional case illustration - not a real-world identification guide.

The mystery plant has six narrow leaves in opposite pairs. Its leaf edges are almost smooth. The lower stem has faint red marks. Tiny hairs point downward. No flowers are visible. Nobody has touched or smelled it.

Observation tells us what is visible. It does not name the plant.

Detail I noticed: _____

CARD 2 - NOVA'S FIRST ANSWER

Source A - NOVA's local plant database

"Common garden mint. Harmless. Confidence: 98 percent." NOVA compared leaf color, opposite leaf pairs, and general size. He did not compare the direction of the hairs or the shape of the leaf edges.

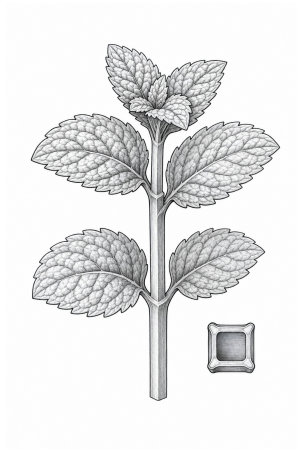
A confident number is part of the answer's presentation - not proof.

Case File Cards 3-4

Reveal these comparison profiles only after children have made an initial choice.

CARD 3 - MINT PROFILE

Source A again - the same local database



Simplified fictional case illustration - not a real-world identification guide.

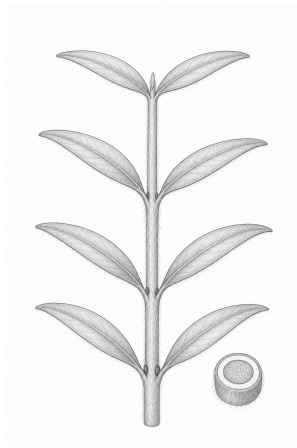
Common garden mint often has broad, wrinkled leaves with toothed edges and a square stem. Many varieties have a strong mint smell. Young plants can vary.

This repeats Source A. It is not a second independent source.

Detail I noticed: _____

CARD 4 - FALSE NETTLE PROFILE

Source B - regional biology database summary



Simplified fictional case illustration - not a real-world identification guide.

Narrowleaf false nettle often has narrow opposite leaves, nearly smooth edges, reddish lower stem marks, and fine hairs angled downward. It may be mistaken for mint.

This source supports a different identification.

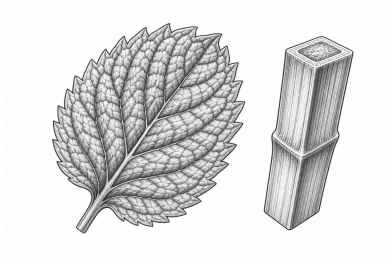
Detail I noticed: _____

Case File Cards 5-6

These cards test comparison, source limits, and what a careful conclusion sounds like.

CARD 5 - FIELD GUIDE CHECK

Source C - printed field guide



Simplified fictional case illustration - not a real-world identification guide.

The field guide's mint picture has broad, wrinkled, toothed leaves. Those features do not match the mystery plant. The guide does not contain an exact entry for narrowleaf false nettle.

Source C weakens the mint claim but cannot confirm the exact alternative.

Detail I noticed: _____

CARD 6 - REGIONAL RECORD - FULL ENTRY

Source B again - expanded regional record

The visible features best match narrowleaf false nettle. The record also says: RECORD INCOMPLETE. VERIFY WITH ANOTHER SOURCE. No flower, genetic test, or chemical test is available.

This repeats Source B. More detail does not make it independent.

Case File Cards 7-8

Finish the case by separating a safety decision from an identification claim.

CARD 7 - SAFETY NOTE

Dr. Vale's classroom rule - not identification evidence

The available records report no visible stinging structures. That is not permission to touch an unidentified plant. An adult decides when handling is safe.

A safety rule can guide action even while identification remains uncertain.

CARD 8 - PIP'S LABEL

PIP - source unknown

FERN

PIP's green light is blinking proudly. Correct him with evidence, not ridicule.

Answer Labels

Place these where children can reach, point, or direct a partner. The labels are deliberately text-only.

MINT	FALSE NETTLE	NOT ENOUGH EVIDENCE
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Confidence Scale

Move a marker whenever the evidence changes what you think.

1	GUESS	Very little support
2	WEAK	One clue, large gaps
3	MIXED	Some support and conflict
4	STRONG	Several matching clues
5	CAREFULLY CHECKED	Strong evidence; limits still named

Decision Cards - Ages 11-12

Teams select one before reporting, then explain the evidence behind the choice.

PUBLISH

Share the best-supported answer and its limits.

PAUSE

Wait because important evidence is missing or conflicting.

CORRECT

Replace an earlier answer and explain what changed.

Case conclusion model

"The plant is most likely narrowleaf false nettle. Its visible features match Source B, while independent Source C weakens the mint claim. Some uncertainty remains because no flower or laboratory test is available. Do not touch it without adult permission."