WITCHWARD RISING

THE BOTANICAL STUDY

The Botanical Investigation Portfolio

A GUIDED BOTANICAL INVESTIGATION PORTFOLIO



Calendula officinalis photographed at Parc floral de Paris.
Photo: Dinkum · CC BY-SA 3.0

Make your work traceable enough for someone else to question it.

BOTANICAL FOUNDATIONS / B-17 · draws on B-02–B-16

KNOW THE PLANT BEFORE YOU USE THE PLANT

Use this resource

Bring the collection together in one traceable investigation. Choose a subject you can observe or research responsibly, then link its identity, structure, environment, material history, chemistry, historical context, research, and safety. The ten profile sections give you a structure; repeat a section when your evidence needs more space. A complete profile follows the evidence, not a page quota.

Use at least an appropriate botanical treatment, a morphology or horticultural source, and a credible research or safety source, adding references whenever a claim needs them. Those categories are a starting point, not a substitute for checking every substantive statement. No wild collection or self-experimentation is required.

Print only what you need. The photographic cover is optional; all working pages use white backgrounds. Print at actual size on US Letter paper. Repeat a selected form for a new plant, batch, visit, or source. Color is not needed to use the records.

Your pages

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A GUIDED BOTANICAL INVESTIGATION PORTFOLIO

Choose a question you can actually investigate.

Begin with your available evidence and practical access. An identified garden plant, a purchased botanical with retained packaging, or an institutional reference record can support different questions. Decide which question fits your subject before assembling a large profile.

Project code / subject / date

Question / reason for choosing it

Evidence I already have access to

Observation or research plan / consistent record method

Permissions, practical limits, or missing evidence

What would count as a useful answer?

READ WITH: B-17 | REFERENCES: 2, 13

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One investigation. A trail someone else can follow.

Choose one botanical subject and a question you can investigate responsibly. Keep the individual living plant, any purchased or processed material, and general species information distinguishable. Connect them through record codes; do not assume they are interchangeable.

Project / botanical subject

Question / scope / dates

Record ID	What it identifies	Date / location or source / linked record

> Include the living plant or reference specimen; observation visits; photographs; any material lot; and each source. A photograph record is useful, but it is not a deposited herbarium voucher.

What I can investigate with the evidence available

What I cannot presently establish

READ WITH: B-17: evidence management · University of Florida Herbarium: voucher documentation | REFERENCES: 2, 3

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Profile 01 / Subject & question

Explain exactly what you examined and why. State the observation period, available evidence, and boundaries of the question.

Subject / individual plant, reference specimen, or purchased material

Question and why it is worth investigating

Where, when, and how I investigated

Limits of the scope / linked records

READ WITH: B-17 | REFERENCES: 2

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Profile 02 / Identity

Keep the original name, the current treatment you consulted, and evidence about the actual subject distinguishable.

Original label / accepted name, author if supplied, family, and synonyms

Botanical treatment / date / diagnostic evidence

A diagnostic feature helps distinguish relevant candidates.

Alternatives considered / missing characters / identification limits

Linked key route, photographs, or voucher reference

READ WITH: B-17 | REFERENCES: 6, 7, 2

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Profile 03 / Structure & life cycle

Describe visible structures and explain their relevant functions. Keep observed stages separate from stages supplied by a reference.

Structures and reproductive stages I observed

A source-supported explanation of function and life cycle

What I could not directly observe / how I checked it

Linked drawings, photographs, and sources

READ WITH: B-17 | REFERENCES: 8, 9

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Profile 04 / Environment & cultivation

Connect dated conditions and care with observations. Keep a possible explanation separate from a demonstrated cause.

Site or container / light, moisture, medium, and other recorded conditions

Care, seasonal stage, and changes over time

Interpretation / alternative explanations / limits of comparison

Linked baseline, logs, photographs, and references

READ WITH: B-17 | REFERENCES: 10, 11, 13

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Profile 05 / Sourcing & material history

Follow the particular material through source, plant part, processing, and storage. A species description does not complete a batch record.

Source / species / part / form / lot or batch

Permission and conservation context, if relevant

Processing and storage records / quality uncertainties

What remains undocumented / linked records

READ WITH: B-17 | REFERENCES: 3, 4, 5

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Profile 06 / Chemistry & preparations

Record constituents or material behavior only as supported by your sources. Retain the preparation, method, and relevant testing context.

Supported constituents or chemical categories / exact sources

Preparation or extraction form actually discussed

Limits on transferring conclusions between forms or experiments

What a demonstration or visual observation does not establish

READ WITH: B-17 | REFERENCES: 12, 13

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Profile 07 / Historical context

Identify the people, place, period, source, edition, and translation behind a historical account. Preserve uncertain botanical identity and sharing limits.

Attributable historical account / source / exact passage

Original plant name / proposed modern identity / evidence and uncertainty

Perspective, attribution, and any permissions or restrictions

What this history establishes / what it does not

READ WITH: B-17 | REFERENCES: 5, 6

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Profile 08 / Research & safety

Keep evidence type, material match, outcomes, and uncertainty visible. This section explains evidence and hazards; it does not prescribe treatment or doses.

Research question / evidence type / material actually studied

Findings with their scope and uncertainty

Documented hazards / interactions / information gaps / sources

Questions requiring a better-matched source or qualified professional

READ WITH: B-17 | REFERENCES: 13, 14, 4

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Profile 09 / Conclusion & next questions

State the strongest conclusion the evidence supports. Make uncertainty useful by naming the next observation or source that could reduce it.

Established findings and the evidence supporting them

Provisional interpretations / conflicting evidence / remaining gaps

The most useful next question and how I could investigate it

A claim I removed or narrowed during review

READ WITH: B-17 | REFERENCES: 13

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Profile 10 / References

Give each source a consistent code and complete citation. Include exact pages or sections where possible, and access dates for changing online records.

Botanical treatment and identification references

Structure, physiology, environment, or cultivation references

Chemistry, history, research, and safety references

Photograph credits / permissions / linked source-record pages

READ WITH: B-17 | REFERENCES: 2, 13, 5

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Name the kind of evidence.

Choose several statements from your profile and identify their basis. An observation records what you saw or measured. An inference is your interpretation. A supplier statement, historical account, and research finding need attribution to their own sources.

Profile / version / review date

Reviewer / method

Statement in my profile	Observation, inference, or attributed claim	Exact record or source / limitation

One statement I need to reclassify or rewrite

READ WITH: B-17 | REFERENCES: 13, 2

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The evidence that changed my mind.

A revision is part of the investigation. Keep the earlier interpretation legible, add the new evidence, and explain the change. A stronger record shows its reasoning instead of quietly replacing the inconvenient part.

Claim / record ID

Date of this review

My earlier interpretation—and why it seemed reasonable

The observation or source that challenged it

Give the date, exact location in the source, or photograph / batch code.

My revised conclusion, including what remains uncertain

The next check that could change my mind again

READ WITH: B-17: supported conclusions and review | REFERENCES: 13

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A correction should leave a trail.

Keep earlier records available when correcting a name, photograph match, transcription, interpretation, or reference. Record what changed, why it changed, and which conclusion is affected. Do not silently turn a later reconstruction into an original measurement.

Project / version / correction date

Affected record, source, photograph, or batch

Earlier entry / location	Correction / evidence for change	Effect on conclusion / new version

What remains unresolved after the correction

Where the prior record is retained

READ WITH: B-17 | REFERENCES: 3, 13

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Can a beginner follow the trail?

Read your profile as though you have never met this plant. Explain one process in plain English. Then ask another reader to follow a claim back to its evidence, or perform that check yourself after setting the work aside.

Profile / version / review date

Reader or self-review method

Explain one “how” or “why” without hiding behind a technical word

Terms I needed to define or explain

One claim traced to its exact evidence

Was it my observation, supplier wording, a historical account, or a research finding? Record the match and any limit.

One sentence I removed, corrected, or qualified—and why

> Finish with the most useful next question. The goal is a careful, readable investigation—not an impressive-looking stack of unsupported certainty.

READ WITH: B-17: Review your work as a beginner would read it | REFERENCES: 13

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Leave a good next question.

Review the remaining uncertainties and choose the one next step most likely to improve your investigation. It may be a return visit, a better botanical reference, a primary historical passage, or a more closely matched research source. More pages are not automatically better evidence.

Current profile / version / date

Priority question

Why this question matters to the conclusion

The observation, source, or method I need

Practical access, permission, and scope limits

How I will recognize that the question is still unresolved

READ WITH: B-17 | REFERENCES: 13, 5

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Keep credit and permission with the image.

For each photograph, record the creator, source, subject, date if known, and any reuse permission or license. Keep your own photograph IDs linked to the correct subject. Do not present a borrowed reference image as your own observation.

Project / image record

Creator / date / source or URL

What the image shows / identification basis / limits

Permission or license / attribution needed / changes made

Photograph ID / original file / linked plant or batch

What I may share / what needs to remain out of a public copy

Respect stated restrictions and sensitive information.

READ WITH: B-17 | REFERENCES: 5, 2

References & photograph credit

Numbers match the reference notes on working pages. These original Witchward Rising forms draw on the lessons and the sources below. Online records checked November 4, 2026.

[1] Witchward Rising. Botanical Foundations: The complete 17-lesson collection. November 2026 edition. Companion lessons: B-17 · draws on B-02–B-16.
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https://www.floridamuseum.ufl.edu/herbarium/methods/vouchers/

[3] European Medicines Agency, Committee on Herbal Medicinal Products. Guideline on Good Agricultural and Collection Practice (GACP) for starting materials of herbal origin. Final, Revision 1. EMA/HMPC/246816/2005 Rev. 1; July 9, 2025. Sections 7, 10-14.
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https://www.fda.gov/regulatory-information/search-fda-guidance-documents/small-entity-compliance-guide-current-good-manufacturing-practice-manufacturing-packaging-labeling

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https://gobotany.nativeplanttrust.org/dkey/

[8] Clark MA, Douglas M, Choi J. Biology 2e. OpenStax; 2018. Section 30.1: The Plant Body.
https://openstax.org/books/biology-2e/pages/30-1-the-plant-body

References & photograph credit / continued

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https://openstax.org/books/biology-2e/pages/32-1-reproductive-development-and-structure

[10] Clark MA, Douglas M, Choi J. Biology 2e. OpenStax; 2018. Section 30.5: Transport of Water and Solutes in Plants.
https://openstax.org/books/biology-2e/pages/30-5-transport-of-water-and-solutes-in-plants

[11] USA National Phenology Network. Nature’s Notebook Documentation. Updated March 11, 2025. Section: Instructions Given to Observers.
https://www.usanpn.org/node/223

[12] Zhang QW, Lin LG, Ye WC. Techniques for extraction and isolation of natural products: a comprehensive review. Chinese Medicine. 2018;13:20. doi:10.1186/s13020-018-0177-x. Section: Extraction.
https://link.springer.com/article/10.1186/s13020-018-0177-x

[13] Schünemann HJ, Vist GE, Higgins JPT, Santesso N, Deeks JJ, Glasziou P, Akl EA, Guyatt GH. Chapter 15: Interpreting results and drawing conclusions. In: Cochrane Handbook. Version 6.5. Cochrane; 2024. Sections 15.2-15.3.
https://www.cochrane.org/authors/handbooks-and-manuals/handbook/current/chapter-15

[14] National Center for Complementary and Integrative Health. Using Dietary Supplements Wisely. Sections on safety, product variation and interactions.
https://www.nccih.nih.gov/health/using-dietary-supplements-wisely

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Calendula officinalis photographed at Parc floral de Paris. Dinkum. CC BY-SA 3.0.
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