

Design notebook setup

Your goal: Set up a design notebook and innovation portfolio that documents dated, evidence-based engineering work.

One product: Initialized design notebook with four labeled sections and a dated first entry, plus a portfolio folder screenshot.

Question: How can a notebook make evidence easier to check without claiming more than it shows?

Start the work

Use headings to locate information, then ask the teacher for missing product facts and directions for real safety checks.

1. Create notebook sections for problem framing, sketches, data, and reflection.
2. Read the rubric for what counts as portfolio evidence.
3. Date and label your first page and record today's objective.
4. Set up the portfolio folder structure that mirrors the PLTW problems.
5. Submit a screenshot or scan of your initialized notebook and portfolio.

Save original preparation locally if actual inputs or the destination are unavailable. Ask for the inputs needed for genuine rubric review, course folder setup and official work; after uploading, check that Schoology shows Submitted.

Words you will use

design notebook

A record of design questions, ideas, evidence and changes.

innovation portfolio

An organized collection showing how an idea develops.

problem framing

Stating a problem, its purpose and requirements.

sketch

A drawing that shows an idea or layout.

data

Recorded observations or supplied information.

reflection

Reasoning about evidence, limits and a next action.

objective

What the work aims to do.

evidence

Information supporting a claim.

source

Where information came from.

criterion

A stated requirement used to check work.

rubric

Criteria and described levels used to judge work.

traceable

Connected to an identifiable source and record.

reproducible

Able to be repeated from enough stated methods and conditions.

revision

A change after checking earlier work.

prototype

An early model used to examine an idea.

folder

A place for organizing files or other folders.

folder structure

The arrangement of folders and their contents.

sequence

The order of items or actions.

root folder

The top folder in the displayed tree.

child folder

A folder contained inside another folder.

screenshot

An image of what a screen actually displayed.

scan

A captured digital image of a physical page.

upload

Sending a file to a digital system.

confirmation

Evidence that the intended action occurred.

Still needed

Waiting for a required input or action.

fictional

Invented for the stated practice.

limitation

What the available evidence cannot establish.

claim

A statement about what is supported.

evidence-quality

Enough relevant record detail to assess a claim, with its limits stated.

date

A calendar label showing when an entry was made or a supplied record is set.

label

Text that identifies a part of a record.

rough note

An unfinished record that may omit context or reasoning.

authorship

Who created a work; formatting alone does not prove this.

H1: An organized record still needs evidence

A design notebook records questions, ideas, observations and revisions. An innovation portfolio is an organized collection of work showing how an idea develops. Evidence is information that supports a claim.

A traceable record shows where its information came from. Reproducible work can be repeated from enough stated methods and conditions; a date and tidy headings alone do not establish that.

Opening record O1 is fictional. A paper label reads Draft. A rough note says fine. An organized note says: February 1, 2027; O1 label reads Draft; this checks the word only.

The organized note names a date, source and observation. It does not prove who made the label, whether the observation is true or whether the label helps a user.

Use O1 to answer both opening questions: how does an evidence-quality entry differ from a rough doodle, and why date and organize each page? Explain the record's limit too.

The teacher selects the route. With the genuine rubric, assigned entry inputs and enrolled folder instructions, use those for the actual work. Do not add the original fictional notebook and tree below.

Without those inputs, complete the original preparation and ask the teacher what you need for authentic requirements. Both routes use these opening questions and the final brief check. No prior reading is assigned.

W1: Four sections and an original checklist

Problem framing states the problem, purpose and requirement. Sketches show a planned layout with labels. Data records observations or supplied information. Reflection explains what the evidence supports, its limit and the next check.

Today's four section labels are problem framing, sketches, data and reflection. A date locates an entry in time; an objective states what the work aims to do.

Original-route checklist: date the practice page February 1, 2027, copy today's objective and use all four section labels. Mark the entry fictional. Do not add a real name to this preparation.

Use S1's purpose and criterion in problem framing. Draw the layout you choose under sketches and label every box. Under data, cite S1 and record the supplied A/B differences.

Under reflection, state the supported choice, one limit and a next check. This original completeness checklist is not the PLTW or teacher portfolio rubric and does not assign a grade.

The real rubric needs the teacher's criteria and levels. Ask the teacher for it before reviewing it. An original checklist cannot prove compliance with an unseen rubric.

S1: Complete fictional notebook input

S1 is invented paper-layout practice, not an experiment, learner record or actual device test. Purpose: help a reader find the three parts of a record. Criterion: show Plan, Record and Check in that order.

Layout A is one horizontal row with two boxes: Plan | Check. Layout B is one horizontal row with three boxes: Plan | Record | Check. These descriptions supply the full visual evidence.

The supplied rough note is: B better, done. Its record ID is S1 and its practice date is February 1, 2027. No reader trial, timing or measured benefit is supplied.

Original route: turn that rough note into one four-section entry using W1. Draw the layout you choose as boxes in the stated order; the words above are its complete text equivalent.

Compare each layout's boxes with the Plan, Record and Check criterion. A count of printed labels is evidence about this fictional layout, not evidence of user performance.

Choose a layout only for the stated label-order criterion. A possible next check is to have the supplied labels checked against that criterion again. Do not invent a user test or measured improvement.

F1: A fictional folder tree with a complete rule

Original route only. The practice sequence has two projects in order: Paper Labels, then Page Layouts. These are invented project names, not the enrolled PLTW problem sequence.

Draw a root folder called Practice Portfolio. Under it draw 01 Paper Labels and 02 Page Layouts. Each of those two folders contains two child folders named Notes and Evidence.

The complete mapping rule is one numbered folder per supplied project, in the supplied order, with the same two children under each. A folder tree shows which folders contain others.

Check seven folders in total: one root, two project folders and four children. This paper tree is not an actual created folder structure or a screenshot.

The authentic course tree requires the enrolled problem sequence and teacher storage/naming instructions. Ask for those inputs; do not infer them from this sample. The actual route does not require this fictional tree.

Q1: Original-route check and recovery

Use W1 to check the same S1 entry you started; do not create a second copy. Check the date, objective, fictional label, four sections, cited record, labeled sketch, comparison and claim limit.

S1 answer check: did you mark Plan, Record and Check present or missing in A and B, and check that each entry keeps the required order? The data concern printed labels only; they cannot establish a real user benefit.

For F1, check the root and both numbered projects, then Notes and Evidence under each. Both numbered folders belong inside Practice Portfolio, not inside each other.

If stuck, first write the four section labels. Put the supplied purpose and criterion in problem framing, then use W1 to finish the remaining sections. Adding a date alone does not supply missing evidence.

Repair one gap or explain why each required part is supported. The actual route uses teacher feedback on authentic work; these fictional checks are not extra tasks.

Optional original-route extension: rewrite the short rough note as two precise summary sentences after finishing the full entry. Use only S1's supplied facts and include its limit.

P1: Keep actual setup and submission distinct

Original route: use twelve short rows with brief evidence of what you did or a next action you need. Begin them during the block, then update changed rows when you finish.

Separate original written practice, real rubric review, actual four-section notebook and genuine dated first entry. A practice page does not establish the actual assigned work or its rubric quality.

Keep the enrolled sequence/storage instructions separate from actual portfolio folders. Also separate the required genuine capture, official setup guidance, official completion and permitted pair/solo check.

Finish separate confirmed-assignment and actual-submission rows. A saved file is not proof it was received. Keep identifying screenshots and actual classroom identity marking on the approved private route.

The actual route uses the teacher's real notebook, folder and submission records instead of this duplicate twelve-row practice form. Ask for missing authentic requirements on either route.

Open the linked BI February 1 assignment and follow its posted instructions and deadline. Save the practice locally and ask the teacher for help if access or required inputs are unavailable.

Problem 1 notebook-setup instructions and completion requirements need the actual enrolled guidance. Neither a sample tree nor opening the course proves official completion.

Finish any January 29 safety work you have not actually completed through the teacher's directions. February 2 is the next BI class day, First evidence entry in the notebook. No homework is due before this class.

R1: A brief final check without invented peer work

Both routes finish by checking a date and the four section labels. With a permitted partner, inspect the allowed artifact and report only what was actually checked.

On the original route, a solo learner checks the practice page against W1 and the supplied M1 model. No partner comment, signature or participation needs to be invented.

On the actual route, follow the teacher-confirmed partner or solo check for the real notebook. Keep any identity marking private. Do not submit an invented review.

Record one confirmed section/date check and one remaining gap or limit. Keep this close brief; the detailed Q1 review comes earlier on the original route.

M1: a distinct complete fictional header entry

Original route only: this model uses record M0, a fictional document header. Its supplied labels are Title: Layout draft and Revision: v2. The criterion requires both labels; no user test is supplied.

Model header: February 1, 2027; fictional practice. Objective: check whether M0 has its two required labels. This model objective belongs to M0; your S1 page uses today's actual lesson objective.

Problem framing: check the header against the title-and-revision criterion. Sketches: a two-line header, Title: Layout draft above Revision: v2. These words are the complete drawing description.

Data: M0 supplies a title and a revision value, so both required labels are present. Reflection: the header meets that labeling criterion. It does not prove authorship, truth or usefulness.

Next check: compare both labels with the supplied record again before copying them. Use this four-section structure for S1; do not copy M0's labels as S1 data.

The actual route uses the real assigned record and rubric. It does not require this fictional model or an additional original entry.

Try the decision

Original route: what does the completed S1 entry support?

- It shows only whether each entry meets the stated label-order criterion in the fictional record.
- The date proves the real author and that all claims are true.
- Completing the practice tree establishes that the actual PLTW portfolio is complete.

Explain your choice using the reading. Discuss it or say it to yourself. This practice does not add another submission.

Your 80-minute flow

0–10 minutes	Use H1/O1 for the two openings. Review the actual rubric if supplied; otherwise ask the teacher for it.
10–25 minutes	Create the four sections through the selected route. Original route: read W1/M1 and start the single practice page.
25–45 minutes	Actual route: complete the genuine assigned entry privately. Original route: use S1 to finish the same four-section practice page.
45–60 minutes	Actual route: use the enrolled sequence and storage rules. Original route: read F1 and draw the fictional paper tree.
60–75 minutes	Actual route: capture and submit genuine artifacts through confirmed instructions. Original route: use Q1/P1, save locally and ask for the inputs needed for missing actual work.
75–80 minutes	Use R1 for a brief permitted partner or solo date/section check. Keep identity information private.

Your response record

Use these labels on paper or in your document. The space below also works when this page is printed.

Both routes: compare rough and organized notes

Use O1 in H1 to answer both opening questions. Explain one difference and why the date/source help checking; include one limit.

H1 supplies the entire opening record. No later case, legal claim or personal history is needed.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Original route only: start one practice page

On one page, write February 1, 2027, today's objective and fictional practice. Add problem framing, sketches, data and reflection.

Use W1. Leave space to complete these same sections with S1; do not make duplicate pages. Actual-route learners use their real notebook instructions.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

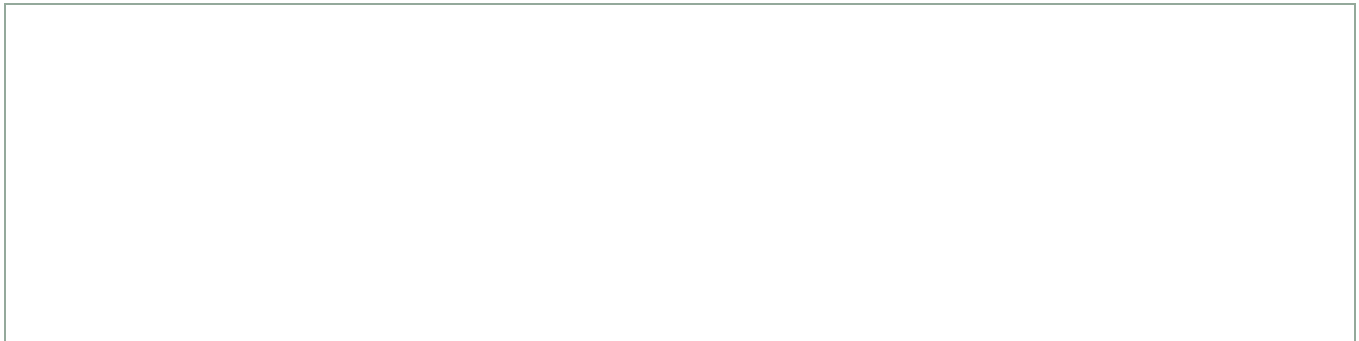


Original route only: turn S1 into an entry

Use W1 and S1 to complete the four sections on the page already started. Draw your chosen layout with its labels and cite the supplied comparison and limit.

M1 models a different complete entry. Use today's objective, not M1's practice objective. The actual route does not require S1.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Original route only: draw the practice tree

Use F1 to draw all seven folders with the stated order and containment. Label it fictional paper practice.

All project names and the mapping rule are supplied. Actual-route learners use the enrolled sequence and teacher instructions, not this tree.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

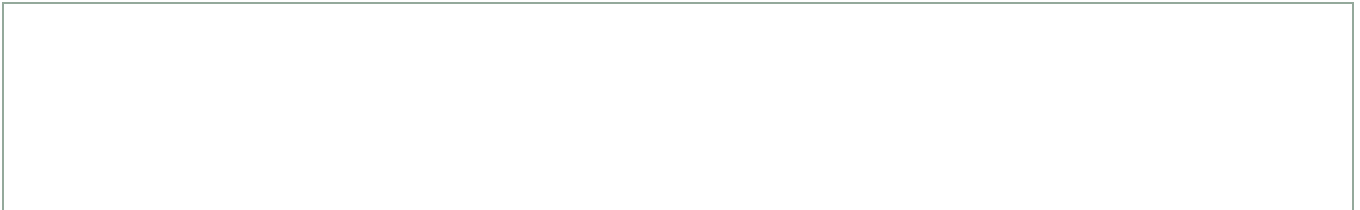


Original route only: check and repair

Use Q1 to check your same notebook page and tree. Repair one gap or justify completeness using the supplied records.

The two-sentence rough-note extension is optional. Actual-route learners use teacher criteria and feedback; the fictional check is not required.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

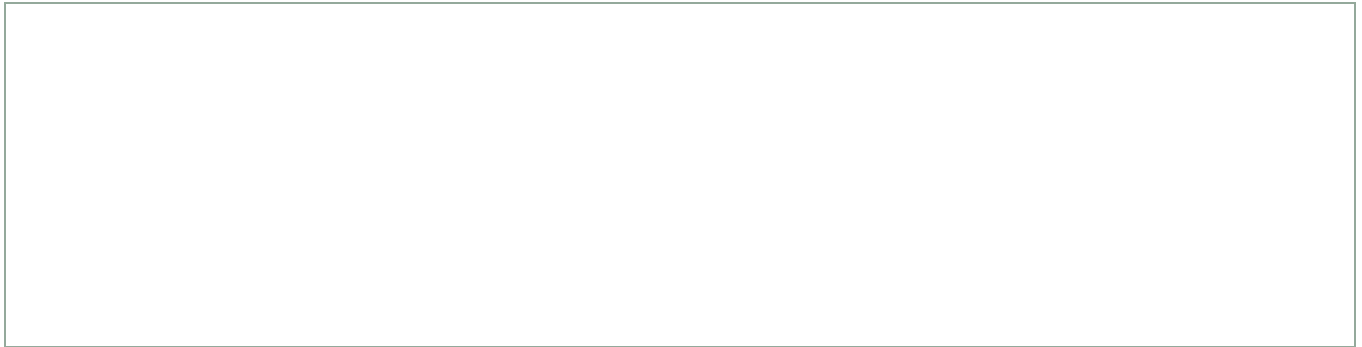


Original route only: twelve work checks

Use P1 for twelve brief rows describing what you did or need next. Start them during each interval and update changed rows at closing.

Actual-route learners use their real teacher records instead. Do not include names, private screenshots or invented completion.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

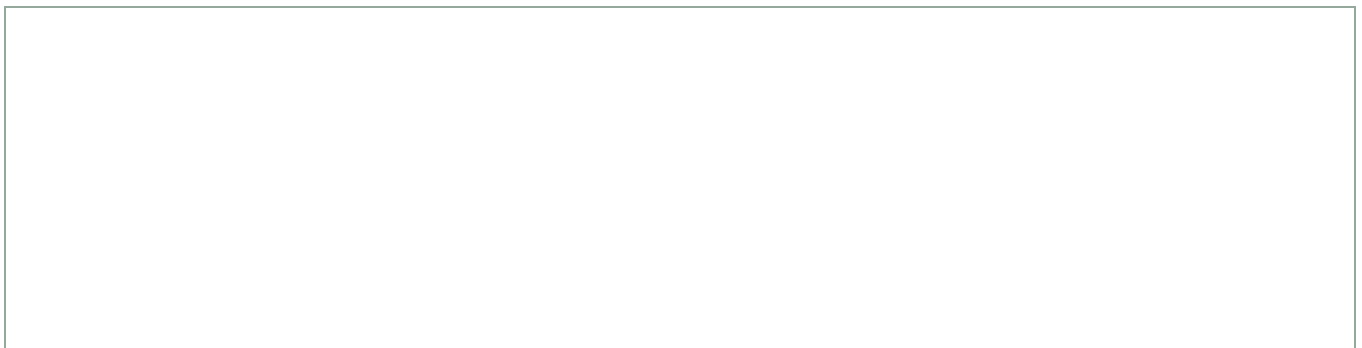


Both routes: brief section and date check

Use R1 to record one actual date/section check and one remaining gap or limit through the permitted partner or solo route.

Original solo route: compare with W1/M1. Actual route: use teacher-confirmed rules. Do not invent peer feedback.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Check your product

- Original route: the single S1 page has today's objective, four labeled sections, supplied evidence and a limited claim.
- Original route: the paper tree follows the complete F1 sequence; authentic setup and submission remain separate.
- Actual route: use genuine teacher criteria and inputs; no additional fictional notebook/tree is required.
- Both routes: a permitted date/section check reports only what was checked.

Keep the limit: Original notebook practice demonstrates organization of supplied fictional records only. It cannot establish actual rubric compliance, enrolled folder setup, authorship, truth, reproducibility, official completion or submission.

Turn in your work

Use the linked BI assignment for the genuine initialized notebook and portfolio evidence. Follow the teacher's screenshot or scan and capture directions. Keep identifying artifacts on the approved private route. After uploading, check that Schoology shows Submitted.

Save original preparation locally if actual inputs or the destination are unavailable. Ask for the inputs needed for genuine rubric review, course folder setup and official work; after uploading, check that Schoology shows Submitted.

[Open this assignment in Schoology.](#)

Carry forward

Label the record, cite its source, and separate an organized entry from a proven claim.

On February 2, build the first BI evidence entry from the assigned record and keep unsupported claims out. What observation will support the problem statement in your first evidence entry?

Sources and resources

[Open today's page](#)