

SIX EXPERIENCES / SUGGESTED SIX-WEEK PATHWAY

Skills to use, explain and grow

Produce a reviewable portfolio with evidence and next steps.

About 60 minutes per experience. Use one experience each week, or split it into shorter sessions. Grade labels are flexible starting points.

Your course map

1. Build an evidence-led portfolio - page 2
2. Defend and revise a recommendation - page 4
3. Audit a headline metric - page 6
4. Review an algorithm with an invariant - page 8
5. Evaluate whether AI is appropriate - page 10
6. Deliver a capstone with a learning plan - page 12

A useful learning routine

Read the goal and example. Follow the four steps. Try the three questions. Make the project, explain your choices and reflect. Spend roughly half the session making and explaining.

Name or classroom nickname: _____ Start date: _____

Learning partner: _____

Print A4 portrait at 100% or Actual size. These are paper workbooks, not fillable forms. Learner questions and teacher answers are in separate documents. Version: 12 October 2026.

EXPERIENCE 1 / DIGITAL CONFIDENCE

Build an evidence-led portfolio

Present a project with traceable evidence and realistic claims. | About 60 minutes

A portfolio should explain your role, method, evidence, limitations and next steps. A polished result alone does not show how reliably it works.

Worked example: A survey dashboard entry includes the question, anonymised sample, calculation method, test record and the limit that one class is not a whole population.

Follow the steps

1. Select: Choose a project and state your actual role.
2. Trace: Link claims to work samples and checks.
3. Qualify: Explain limits and unfinished validation.
4. Reflect: Name a transferable skill and a next learning goal.

Try these exercises

1. Which claim is supported by one successful test?

A. The system can never fail | B. It passed this stated test under these conditions | C. It works for everyone

Answer: _____

2. Which evidence would best show this skill?

A. Say it is finished without checking | B. Copy an unrelated answer | C. State your contribution honestly and explain or demonstrate it

Answer: _____

3. Put the worked-example steps in order.

Write the letters in order. A. Reflect | B. Qualify | C. Trace | D. Select

Answer: _____

EXPERIENCE 1 / CREATE, EXPLAIN AND REFLECT

Build an evidence-led portfolio

Create a portfolio case study using fictional or permission-cleared work. Ask someone to trace one claim to evidence.

Worked example reference - explain it, then try your own project

STEP 1

Select

STEP 2

Trace

STEP 3

Qualify

STEP 4

Reflect

My notes, drawing or dictated explanation (attach another sheet if needed):

Review your evidence

- ☐ State your contribution honestly
- ☐ Support claims with evidence
- ☐ Name limits and a next step

What did I learn, change or need help with?

Next challenge: Apply your evidence format to a different subject.

These ticks are a self-review. Ask an adult or partner to review what you can show.

EXPERIENCE 2 / CREATE AND COMMUNICATE

Defend and revise a recommendation

Respond to scrutiny and revise a recommendation transparently. | About 60 minutes

A professional explanation makes assumptions visible, addresses counter-evidence and records why a recommendation changes.

Worked example: A club recommends a digital sign-up form, then revises it after finding some users lack device access. A paper route is added with the same privacy rules.

Follow the steps

1. Recommend: State the choice and decision criteria.
2. Challenge: Invite a specific counter-example.
3. Revise: Change the plan where evidence warrants it.
4. Document: Explain what changed and what still needs testing.

Try these exercises

1. When evidence reveals an access barrier, what is appropriate?

A. Revise the plan and explain why | B. Blame the affected users | C. Hide it

Answer: _____

2. Which evidence would best show this skill?

A. Copy an unrelated answer | B. Compare credible alternatives and explain or demonstrate it | C. Say it is finished without checking

Answer: _____

3. Put the worked-example steps in order.

Write the letters in order. A. Document | B. Revise | C. Challenge | D. Recommend

Answer: _____

EXPERIENCE 2 / CREATE, EXPLAIN AND REFLECT

Defend and revise a recommendation

Write a one-page decision memo comparing two ways to organise an event. Ask a reviewer to challenge one assumption.

Worked example reference - explain it, then try your own project

STEP 1

Recommend

STEP 2

Challenge

STEP 3

Revise

STEP 4

Document

My notes, drawing or dictated explanation (attach another sheet if needed):

Review your evidence

- ☐ Compare credible alternatives
- ☐ Respond to evidence respectfully
- ☐ Record the reason for a revision

What did I learn, change or need help with?

Next challenge: Adapt the memo to another community problem.

These ticks are a self-review. Ask an adult or partner to review what you can show.

EXPERIENCE 3 / DATA AND DECISIONS

Audit a headline metric

Trace a rate to its definition and raw counts. | About 60 minutes

A metric depends on its denominator, time window and exclusions. Report enough context to let another person reproduce it.

Worked example: A fictional pilot finishes 42 of 50 eligible tasks. Completion = 84%. If ten excluded tasks matter to the question, explain why they were excluded rather than silently changing the denominator.

Follow the steps

1. Read: Read the labels and values: Completed: 42, Other: 8.
2. Represent: Compare the bars on a scale that starts at zero.
3. Calculate: Work through the calculation in the example; result: 84.
4. Interpret: Explain what the result means and what it does not establish.

Try these exercises

1. What is 42 out of 50 as a percentage?

A. 83 | B. 84 | C. 86

Answer: _____

2. Which evidence would best show this skill?

A. Use the supplied values accurately and explain or demonstrate it | B. Say it is finished without checking | C. Copy an unrelated answer

Answer: _____

3. Put the worked-example steps in order.

Write the letters in order. A. Interpret | B. Calculate | C. Represent | D. Read

Answer: _____

EXPERIENCE 3 / CREATE, EXPLAIN AND REFLECT

Audit a headline metric

Write a metric note with definition, counts, exclusions, calculation and limitation. Explain what a reviewer needs to reproduce it.

Worked example reference - explain it, then try your own project

Completed		42
Other		8

Equal scale starts at 0; maximum 45. Fictional values.

My notes, drawing or dictated explanation (attach another sheet if needed):

Review your evidence

- ☐ Use the supplied values accurately
- ☐ Show a calculation or count with its meaning
- ☐ State a fair comparison or limitation

What did I learn, change or need help with?

Next challenge: Propose a second metric that catches a weakness of the first.

These ticks are a self-review. Ask an adult or partner to review what you can show.

EXPERIENCE 4 / COMPUTATIONAL THINKING

Review an algorithm with an invariant

Use a maintained property to explain a loop. | About 60 minutes

A loop invariant is a property that remains true at a defined point in every iteration. State initialisation, maintenance and what termination implies.

Worked example: For summing [2,4,6], after k items total equals the sum of the first k items. At $k=0$ total=0; at $k=1$ total=2; $k=2$ total=6; $k=3$ total=12.

Follow the steps

1. Initialise: At $k=0$, total=0: no items have been processed.
2. Maintain 1: After item 2, $k=1$ and total=2.
3. Maintain 2: After item 4, $k=2$ and total=6.
4. Terminate: After item 6, $k=3$ and total=12.

Try these exercises

1. What does the invariant describe after k items?

A. The sum of the first k items | B. Always the final total | C. The largest item only

Answer: _____

2. Which evidence would best show this skill?

A. Say it is finished without checking | B. Copy an unrelated answer | C. State the property precisely and explain or demonstrate it

Answer: _____

3. Put the worked-example steps in order.

Write the letters in order. A. Terminate | B. Maintain 2 | C. Maintain 1 | D. Initialise

Answer: _____

EXPERIENCE 4 / CREATE, EXPLAIN AND REFLECT

Review an algorithm with an invariant

Explain initialisation, maintenance and termination for the example. Add assumptions about numeric inputs.

Worked example reference - explain it, then try your own project

STEP 1

Initialise

STEP 2

Maintain 1

STEP 3

Maintain 2

STEP 4

Terminate

My notes, drawing or dictated explanation (attach another sheet if needed):

Review your evidence

- ☐ State the property precisely
- ☐ Explain why each update preserves it
- ☐ Connect termination to the desired result

What did I learn, change or need help with?

Next challenge: Adapt the reasoning to counting matching items.

These ticks are a self-review. Ask an adult or partner to review what you can show.

EXPERIENCE 5 / RESPONSIBLE TECHNOLOGY

Evaluate whether AI is appropriate

Compare a tool against a simpler alternative and its risks. | About 60 minutes

A tool should serve a justified purpose. Consider accuracy, access, privacy, cost, oversight and the option not to use AI.

Worked example: For sorting ten fictional club items, a transparent rule table may be easier to verify than a predictive model. Evaluate both against the same goal.

Follow the steps

1. Define: State the actual decision and success criteria.
2. Compare: Compare a rule table, manual work and an AI approach.
3. Evaluate: Consider evidence, affected users, errors and oversight.
4. Decide: Recommend a bounded approach and review trigger.

Try these exercises

1. When might a simple rule table be preferable?

A. Never | B. Only if all data is public | C. When it meets the need more transparently

Answer: _____

2. Which evidence would best show this skill?

A. Copy an unrelated answer | B. Compare a non-AI alternative and explain or demonstrate it | C. Say it is finished without checking

Answer: _____

3. Put the worked-example steps in order.

Write the letters in order. A. Decide | B. Evaluate | C. Compare | D. Define

Answer: _____

EXPERIENCE 5 / CREATE, EXPLAIN AND REFLECT

Evaluate whether AI is appropriate

Write a short AI-use decision record with alternatives, evaluation evidence, limits and a reasoned recommendation.

Worked example reference - explain it, then try your own project

STEP 1

Define

STEP 2

Compare

STEP 3

Evaluate

STEP 4

Decide

My notes, drawing or dictated explanation (attach another sheet if needed):

Review your evidence

- ☐ Compare a non-AI alternative
- ☐ Consider affected people and error consequences
- ☐ Set a review or stop condition

What did I learn, change or need help with?

Next challenge: Describe evidence that would make you revise the recommendation.

These ticks are a self-review. Ask an adult or partner to review what you can show.

EXPERIENCE 6 / DESIGN AND LIFE SKILLS

Deliver a capstone with a learning plan

Connect a problem, method, evidence and future learning. | About 60 minutes

A capstone brings skills together. Responsible delivery includes what works, what is untested, who benefits and what you would learn next.

Worked example: A fictional library-finding prototype includes a problem brief, accessible design, test record, privacy choices, limitations and a handover guide.

Follow the steps

1. Frame: Define the need and affected users.
2. Build: Combine communication, data and a practical prototype.
3. Evaluate: Trace claims to tests and discuss limitations.
4. Transfer: Write a handover and a next learning plan.

Try these exercises

1. What belongs in a responsible capstone?

A. Claims of guaranteed success | B. Only the attractive final image | C. Method, evidence, limitations and next steps

Answer: _____

2. Which evidence would best show this skill?

A. Connect choices to the problem and explain or demonstrate it | B. Say it is finished without checking | C. Copy an unrelated answer

Answer: _____

3. Put the worked-example steps in order.

Write the letters in order. A. Transfer | B. Evaluate | C. Build | D. Frame

Answer: _____

EXPERIENCE 6 / CREATE, EXPLAIN AND REFLECT

Deliver a capstone with a learning plan

Choose a small fictional school problem. Produce a brief, prototype, test record, review memo and reflection; label untested parts.

Worked example reference - explain it, then try your own project

STEP 1

Frame

STEP 2

Build

STEP 3

Evaluate

STEP 4

Transfer

My notes, drawing or dictated explanation (attach another sheet if needed):

Review your evidence

- ☐ Connect choices to the problem
- ☐ Support claims with reviewable evidence
- ☐ Plan a realistic next skill to develop

What did I learn, change or need help with?

Next challenge: Apply one learned method to a new problem.

These ticks are a self-review. Ask an adult or partner to review what you can show.

KEEP THE LEARNING GOING

Explain your next step

Choose one work sample. Explain an improvement you made, the evidence you used and where you could use the skill next.

Support and safe practice

Use fictional examples and approved tools. Ask an adult for help with instructions and classroom materials. No public posting, live AI account, purchase or personal information is needed.

Online companion

<https://www.heliolearn.com/skills/grade-12/>

Use the web pages for controllable animations and automatic exercise feedback. New practice-space notes stay in the browser and do not sync to school accounts. Download notes before changing devices. Help: <https://www.heliolearn.com/skills/help/>

Curriculum context

Original enrichment activities with an editorial grade progression. These are not a complete examination-board syllabus or formally endorsed by the organisations below.

ISTE student standards: broad digital-learning context

<https://iste.org/standards/students>

UNICEF: transferable skills across childhood and adolescence

<https://www.unicef.org/lac/en/transferable-skills-development>

UNESCO: student AI competencies

<https://www.unesco.org/en/articles/ai-competency-framework-students>