EAD CONNECTING EDUCATION WITH LIFE

PROJECT WORKBOOK · EXPLORER + INVESTIGATOR

Young Innovators

Discover. Investigate. Create.

22 real-world projects
Explorer and Investigator levels

Write-in workbook
Record pages, worked examples, templates

First assessment free
Written feedback from EAD



Find a real problem.
Fix it. Prove it.

earlyagedevelopment.com

A TECHNO GROUP PRODUCT

CONNECTING EDUCATION WITH LIFE

EAD YOUNG INNOVATORS · EXPLORER + INVESTIGATOR

This book belongs to

Name _____

School or club _____

Start date _____ My first project _____

What you will do in this book

Every project follows the same four moves. You will use them again and again.

Find
a real problem near you

Measure
the 'before' number

Fix
one thing that matters

Prove
measure again and show it

My goal for this book

_____

_____

A failed idea can still make a strong project. What matters is that you measured honestly and can explain what happened.

INCLUDED WITH THIS PRINTED WORKBOOK

Your first project assessment is free. Finish any one project, send it to EAD and receive written feedback. It counts toward your portfolio. See page 40.

FOR PARENTS AND TEACHERS

How this workbook works

This workbook gives a learner 22 real-world projects across two levels. Each one follows the same method: measure something, change one thing, measure again and explain the result honestly.

Where to start

LEVEL	SUGGESTED START	WHAT THE LEARNER DOES	WHERE
Explorer	From about 7	Short, safe tests at home or school. Count, measure, compare and explain.	In this book
Investigator	From about 11	Industry problems with research, data, costs and a tested recommendation.	In this book
Researcher	From about 14	Authority in one niche: advanced research, AI automation and relationships.	EAD Impact Innovators

Ages are a guide only. A learner may be ready earlier or need more time. Evidence, not age, decides when they move up.

YOUR ROLE

- Help choose a safe project and agree a start date.
- Arrange any contact with experts or adults outside the family.
- Check the safety box on each project page.
- For younger learners, help with reading, materials and recording. Ask questions; do not do the work. The learner makes and explains every decision.

TIME NEEDED

- **Explorer:** one to two weeks of short sessions per project.
- **Investigator:** about six weeks per project, a few hours a week.
- Three finished projects are the minimum to apply for level assessment.

WHAT COMES WITH THIS PRINTED WORKBOOK

- 22 project guides with write-in record pages.
- A worked example for each level.
- Submission template and portfolio tracker.
- **One free project assessment:** written feedback on one project, not a certificate.
- A route to EAD level certification.
- Teacher-guided EAD semester projects, every semester.

Questions? WhatsApp +92 333 4520616 (Pakistan) or +971 50 125 1929 (UAE), or email haroon@earlyagedevelopment.com.

CONTENTS

What is inside

GETTING STARTED

Your EAD path 4

How every project works 5

Safety, honesty and consent 6

Words to know 7

LEVEL 1 · EXPLORER

Explorer: 10 projects 8

LEVEL 2 · INVESTIGATOR

Investigator: 12 projects 22

Your six-week project 23

SUBMIT AND PROGRESS

Assessment and certification 39

Send your free project assessment 40

My portfolio tracker 41

Submission template 42

OPTIONAL

Qur'anic research references 45

EXPLORER PROJECTS

01 · Seed Detectives 11

02 · Water Filter Designers 12

03 · Wind Power Engineers 13

04 · Bridge Builders 14

05 · Smart Shopping Investigators 15

06 · Waste Sorting Detectives 16

07 · Floating and Sinking Challenge 17

08 · Solar Heat Explorers 18

09 · Tower Stability Engineers 19

10 · Sound Detectives 20

INVESTIGATOR PROJECTS

01 · The Sixty-Litre Dinner 27

02 · The Sugar You Did Not Order 28

03 · Why Prayer Times Differ 29

04 · The Thing That Keeps Breaking 30

05 · The Four-Hundred-Unit Leak 31

06 · The Ten Minutes That Teach 32

07 · Where The Money Actually Went 33

08 · The Rule Nobody Follows 34

09 · The Lie This Street Believes 35

10 · The Trigger 36

11 · The Cheapest Clean 37

12 · The Question Nobody Asked 38

YOUR EAD PATH

Three levels, one way of working

You do not need to finish every project in this book. Start at your level, finish projects properly and build a portfolio.

LEVEL 1

Explorer

Discover and experiment

10 projects in this book

LEVEL 2

Investigator

Investigate and analyse

12 projects in this book

LEVEL 3

Researcher

Build authority in one niche

EAD Impact Innovators

How you move up a level

1. **Do projects**
   Finish projects at your level. Each one builds evidence.
2. **Build a portfolio**
   At least 3 finished projects at your level; 5 is better. Three lets you apply; it is not an automatic pass.
3. **Apply for level assessment**
   Show your portfolio, explain your work and answer questions.
4. **Certified, or a clear plan**
   Pass and receive EAD level certification, or get feedback on what to add and try again.

YOUR FIRST ASSESSMENT IS FREE

Send any one finished project to EAD and receive written feedback on every part. It is feedback, not certification, and the project still counts toward your portfolio. Level assessment and certification are charged: ask us for the price list for your country.

How to send it: page 40.

SEMESTER PROJECTS

Want more support? Join a teacher-guided EAD semester project at your level, with a term plan, checkpoints, feedback and a team.

Finishing a project and passing a level are different. Projects build your evidence. Assessment decides whether you are ready for the next level.

THE METHOD

How every project works

Every project page in this book uses these five steps. Learn them once and you can run any project.

1. **Find the problem**
   Notice something wasted, unstable, confusing or not working well. Write one question you can answer by counting or measuring.

2. **Measure before**
   Decide exactly what you will count or measure. Write the unit, the date, the tool and the method. Take your first measurement **before** you change anything.

3. **Change one thing**
   Change only one thing and keep everything else the same, so the test is fair. Write what you think will happen.

4. **Measure again**
   Use the same tool, method and unit. Put before and after side by side. Note anything else that changed. If nothing improved, say so.

5. **Show and explain**
   Show your question, both numbers, a table, drawing or chart, what went wrong or surprised you, and what you would try next.

> **When you cannot change something physically,** change one thing about how you compare or check: per serving versus per pack, one filter material versus another, your confidence before and after checking sources. The standard stays the same: a clear baseline, the same method each time, a fair comparison and honest limits.

TWO ROUTES, ONE STANDARD

NO-TECH Notebook, labelled drawings, tally marks, paper tables and a calculator. Works anywhere, even with no electricity.

HIGH-TECH Photos, spreadsheets and free online tools, with an adult's approval.

THE RULE THAT MATTERS MOST

Measure before you change anything. Then measure again in exactly the same way.

SAFETY, HONESTY AND CONSENT

Good projects protect people

These rules apply to every project at every level.

- Ask permission before interviews, surveys, photos, recordings or observations in private places.
- Contact with experts or other adults is always arranged by a teacher, parent or trusted adult. Never approach strangers alone.
- Do not collect private or sensitive information. Use group totals instead of names wherever you can.
- Label made-up, estimated or teacher-provided data clearly. Never present it as your own measurement.
- Do not enter restricted places, handle hazardous materials or test electrical, medical or structural safety.
- Give credit for sources and for other people's help. Never copy work or exaggerate a result.
- A project that shows your idea did not work is still a strong project if the evidence is honest.

THE CONSENT CHECK

Before you ask anyone a question, tick every box.

- [ ] I explained what I am doing in simple words.
- [ ] The person said yes, and knows they can stop at any time.
- [ ] I asked before taking notes, photos or recordings.
- [ ] I will not share names, faces or private details.

Any box empty? Stop and fix it first.

FOR ADULTS

Follow your school's safeguarding and consent rules. The adult arranges all outside contact and keeps any names separately and securely. Learners never publish phone numbers, addresses or identifying details.

WORDS TO KNOW

The words this book uses

Come back to this page whenever a word is new.

Baseline
Your first measurement, taken before you change anything.

Fair test
A test where only one thing changes and everything else stays the same.

Variable
Anything that can change in a test, such as light, water or blade shape.

Unit
What a number is measured in: cm, °C, grams, litres, turns or a 1–5 rating.

Evidence
Dated notes, numbers, drawings or approved photos that show what happened.

Data
The numbers and observations you record.

Estimate
A careful best guess from a named source. Always label it as an estimate.

Source
Where a fact or figure came from: a book, website, label or expert.

Prototype
A first model of an idea, built to be tested and improved.

Failure log
A record of what went wrong, what you changed and what you learned.

Confounder
Something else that changed and might explain your result, such as the weather.

Limitation
What your test cannot prove, and why.

Stakeholder
A person or group affected by the problem or by your change.

Consent
A clear yes from a person before you ask questions, take notes or take photos.

Portfolio
Your collection of finished projects and the evidence for each.

Defence
Explaining your project and answering questions you did not prepare for.

High-Tech route
Doing the project with free digital tools, photos or spreadsheets.

No-Tech route
Doing the same project on paper, with no device or electricity needed.

LEVEL 1

Explorer

Discover and experiment

Start with curiosity. Notice something, ask a question, test a simple idea, measure what happens and explain what you learned. Explorer projects are short, safe and done with an adult nearby.

01 Seed Detectives

02 Water Filter Designers

03 Wind Power Engineers

04 Bridge Builders

05 Smart Shopping Investigators

06 Waste Sorting Detectives

07 Floating and Sinking Challenge

08 Solar Heat Explorers

09 Tower Stability Engineers

10 Sound Detectives

EXPLORER · PREFERENCE CHECK

How do you like to solve problems?

This is a short check of what you enjoy today. It is not a test and not a label. Tick as many as you like.

A · I like to…

- ☐ build, make or test things with my hands
- ☐ observe nature, materials or how things work
- ☐ solve number, pattern or logic challenges
- ☐ understand people, feelings and different points of view
- ☐ organise ideas, plan steps and make things work better
- ☐ create stories, designs, visuals or new ideas

B · I enjoy working…

- ☐ on my own, quietly
- ☐ with one partner
- ☐ in a small team where we share ideas
- ☐ by talking to people and learning from them

C · When something goes wrong, I…

- ☐ try another design or method
- ☐ look for more evidence and check my guesses
- ☐ ask someone how they see the problem
- ☐ break the problem into smaller steps

PROJECTS YOU MIGHT ENJOY

Hands-on makers: Bridge Builders, Tower Stability Engineers, Wind Power Engineers

Nature and observation: Seed Detectives, Solar Heat Explorers, Waste Sorting Detectives

Numbers and practical decisions: Smart Shopping Investigators, Water Filter Designers

Creative testers: Floating and Sinking Challenge, Sound Detectives

My top interests today _____

The project I will start with _____

These are suggestions, not rules. Your interests can change, and trying something unfamiliar is part of learning.

EXPLORER · WORKED EXAMPLE

What a good record looks like

EXAMPLE · MADE-UP NUMBERS

Here is Seed Detectives, filled in. The numbers are invented to show the format. Your numbers will be different, and that is the point.

My project record

Seed Detectives

My question Do cress seeds grow better by the window or in the cupboard?

What I measured Height in cm (3 seeds, average) and number of leaves

WHEN	CUP A · WINDOW	CUP B · CUPBOARD
Day 1	0 cm · 0 leaves	0 cm · 0 leaves
Day 4	1.0 cm · 2 leaves	1.5 cm · 1 leaf
Day 7	3.5 cm · 4 leaves	5.0 cm · 2 leaves
Day 10	6.0 cm · 4 leaves	8.5 cm · 2 leaves, pale

What happened Cup B grew taller but thin and pale, with fewer leaves.

What I learned Taller is not the same as healthier.

Next time I will also record leaf colour every day.

WHY THIS RECORD IS STRONG

- **Question is specific.** It names one condition (light) and what will be measured.
- **Baseline on day 1.** Recorded before anything could change.
- **Same unit, same time.** Height in cm, checked at the same time each day.
- **Honest surprise.** The "winner" by height was not the healthiest plant.
- **A next step.** Says exactly what to measure next time.

Your turn. Every Explorer project page has a record box like this one. Fill it in as you go, not at the end.

Seed Detectives

YOUR QUESTION

How do seeds respond to different growing conditions?

Plants at home and school grow differently depending on where they are kept.

1. **Find the problem**
   Pick one condition to test: light or the amount of water. Keep the seed type, soil, cup size and watering time the same.
2. **Measure before**
   Plant the same number of seeds in two labelled cups. On day 1, write the date, where each cup sits and how much water it gets.
3. **Change one thing**
   Change only that one condition. For example, put one cup by a window and one in a shaded spot.
4. **Measure again**
   Check at the same time every day for 7 to 10 days. Measure height in cm and count the leaves.
5. **Show and explain**
   Make a growth table or chart. Say which condition seemed to matter, and note anything else that changed, such as a hot day.

CHOOSE YOUR ROUTE

NO-TECH Plant diary with labelled drawings and a leaf tally.

HIGH-TECH Photo log at the same time each day, or a spreadsheet chart.

SAFETY

Wash hands after handling soil. Use clean cups and tap water only. Work with an adult nearby.

JOBS THAT USE THIS

Farmers, horticulturists, seed researchers and food producers.

SCHOOL SUBJECTS

Science: plant needs and living things. Maths: measuring and tables. English: explaining evidence.

My project record

Measuring: Height (cm) and number of leaves

	CUP A	CUP B
Day 1		
Day 4		
Day 7		
Day 10		

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · PROJECT 02 WATER, ENVIRONMENT & CIVIL ENGINEERING

Water Filter Designers

YOUR QUESTION

Which simple filter layers remove the most visible particles?

Muddy water after rain looks cloudy. Engineers clean water in stages, and a model filter shows how layers work.

1. **Find the problem**
   Design two model filters from safe layers such as gravel, sand and cloth inside cut plastic bottles.
2. **Measure before**
   Prepare one jar of muddy water. Rate its cloudiness from 1 (clear) to 5 (very cloudy) against the same white background.
3. **Change one thing**
   Pour the same amount through each filter. The only difference is the order or type of layers.
4. **Measure again**
   Rate each filtered sample on the same scale and background. Repeat with a fresh pour.
5. **Show and explain**
   Make a rating table and a labelled drawing of each filter. Say which layers made the biggest difference.

CHOOSE YOUR ROUTE

NO-TECH Rating table and labelled diagrams.

HIGH-TECH Photos taken in the same light, placed side by side in a chart.

SAFETY

Never drink filtered water. This is a clarity test, not a purification test. Work with an adult nearby.

JOBS THAT USE THIS

Water treatment operators, environmental scientists and civil engineers.

SCHOOL SUBJECTS

Science: materials and mixtures. Maths: fair comparisons and charts. Design and technology: testing and improving a model.

My project record

Measuring: Cloudiness rating (1 clear to 5 very cloudy)

	FILTER A	FILTER B
Before		
Pour 1		
Pour 2		

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · PROJECT 03 ENERGY & ENGINEERING

Wind Power Engineers

YOUR QUESTION

How does blade shape affect a pinwheel's movement?

Wind turbines turn faster or slower depending on the shape of their blades.

1. **Find the problem**
   Choose one blade feature to test: shape or width. Everything else stays the same.
2. **Measure before**
   Build pinwheel A. Use the same fan setting or gentle breath at the same distance, and count turns in 10 seconds.
3. **Change one thing**
   Build pinwheel B with only the blade shape or width changed. An adult pushes in the pin.
4. **Measure again**
   Test pinwheel B the same way. Repeat each test three times and use the middle count.
5. **Show and explain**
   Make a table of turns and sketch both blades. Explain why a fair test changes only one feature.

CHOOSE YOUR ROUTE

NO-TECH Tally marks and labelled sketches.

HIGH-TECH Spreadsheet of counts, or a slow-motion video to count turns.

SAFETY

An adult handles pins. Keep fingers away from fan blades. Work with an adult nearby.

JOBS THAT USE THIS

Renewable-energy engineers, turbine technicians and power companies.

SCHOOL SUBJECTS

Science: forces and energy. Maths: counting, timing and comparing. Design and technology: prototypes and iteration.

My project record

Measuring: Turns in 10 seconds

	PINWHEEL A	PINWHEEL B
Test 1		
Test 2		
Test 3		

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · PROJECT 04 CONSTRUCTION & STRUCTURAL ENGINEERING

Bridge Builders

YOUR QUESTION

Which bridge shape supports the greatest load?

Bridges near you carry people and vehicles every day. Their shape decides how much they can hold.

1. **Find the problem**
   Make two small bridges from paper, card or craft sticks across the same gap, for example 20 cm between two books.
2. **Measure before**
   Test bridge A. Add identical coins or counters one at a time and record how many it holds before it bends.
3. **Change one thing**
   Build bridge B with one change only, such as folding the paper into a zig-zag or adding a triangle support.
4. **Measure again**
   Test bridge B with the same counters, placed in the same spot. Stop before it collapses.
5. **Show and explain**
   Make a load table and labelled drawings showing where each bridge started to bend.

CHOOSE YOUR ROUTE

NO-TECH Load table and labelled drawings.

HIGH-TECH Digital graph of the load for each design.

SAFETY

Use light counters, not heavy weights. Stop before the bridge falls. Work with an adult nearby.

JOBS THAT USE THIS

Architects, structural engineers, construction planners and inspectors.

SCHOOL SUBJECTS

Science: forces and materials. Maths: counting and comparing quantities. Design and technology: structure, limits and testing.

My project record

Measuring: Counters held before bending

	BRIDGE A	BRIDGE B
Test 1		
Test 2		
Test 3		

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · PROJECT 05 RETAIL, BUSINESS & CONSUMER ECONOMICS

Smart Shopping Investigators

YOUR QUESTION

How can we compare value without choosing only the cheapest item?

Families choose between pack sizes every week. The bigger pack is not always the better value.

1. **Find the problem**
   Pick one everyday product sold in two or three pack sizes. Use labels at home or a list from an adult. No purchase needed.
2. **Measure before**
   Write each pack's price and size. Then write which one you would buy, before doing any maths.
3. **Change one thing**
   Change how you compare: work out the price per 100 g or per 100 ml for each pack.
4. **Measure again**
   Compare the unit prices. Did your first choice change? Add packaging and waste as other factors.
5. **Show and explain**
   Make a comparison table and write a short recommendation that explains the trade-off.

CHOOSE YOUR ROUTE

NO-TECH Paper comparison table and calculator.

HIGH-TECH Spreadsheet that works out the price per unit.

SAFETY

Use made-up or family-approved examples only. Work with an adult nearby.

JOBS THAT USE THIS

Retail buyers, shop owners, accountants and consumer researchers.

SCHOOL SUBJECTS

Maths: division, decimals and unit rates. English: persuasive writing. Social studies: needs and wants.

My project record

Measuring: Price per 100 g or 100 ml

	PRICE	SIZE	PER 100
Pack 1			
Pack 2			
Pack 3			

What happened, and what I learned _____

Next time I will _____

DRAW IT

Waste Sorting Detectives

YOUR QUESTION

What waste does our class produce, and how could we reduce it?

Every classroom fills a bin each day. Much of it could be reduced.

1. **Find the problem**
   With a teacher, agree safe categories to count: clean paper, packaging, food wrappers and other.
2. **Measure before**
   Count each category for 3 days and record the totals. An adult checks the waste is clean first.
3. **Change one thing**
   Choose one reduction action, such as a scrap-paper tray or a reuse box, and explain it to the class.
4. **Measure again**
   Count the same categories for 3 more days in the same way.
5. **Show and explain**
   Make a tally chart for before and after, and recommend one realistic change backed by the numbers.

CHOOSE YOUR ROUTE

NO-TECH Tally chart and poster.

HIGH-TECH Spreadsheet bar chart.

SAFETY

Never touch sharp, dirty or hazardous waste. Wear gloves and wash hands afterwards. Work with an adult nearby.

JOBS THAT USE THIS

Recycling coordinators, environmental officers and circular-economy businesses.

SCHOOL SUBJECTS

Science: materials. Maths: tallies, totals and graphs. Citizenship: shared responsibility.

My project record

Measuring: Items counted over 3 days

	BEFORE	AFTER
Paper		
Packaging		
Wrappers		
Other		

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · PROJECT 07 MARINE SCIENCE & PRODUCT DESIGN

Floating and Sinking Challenge

YOUR QUESTION

Can we design a small boat that carries a larger load?

Cargo ships carry huge loads because of their shape, not because they are light.

1. **Find the problem**
   Use foil, card or modelling clay to make boats, and a shallow tray of water.
2. **Measure before**
   Make boat A. Add identical counters one at a time and record how many it holds before water comes in.
3. **Change one thing**
   Make boat B from the same amount of material with one change of shape, such as wider or with higher sides.
4. **Measure again**
   Test boat B the same way. Repeat each test three times.
5. **Show and explain**
   Sketch both boats, make a results table and say what you would change next.

CHOOSE YOUR ROUTE

NO-TECH Sketches and a results table.

HIGH-TECH Photos of each test and a chart.

SAFETY

Use a shallow tray, wipe up spills and keep water away from sockets. Work with an adult nearby.

JOBS THAT USE THIS

Naval architects, marine engineers, shipbuilders and logistics operators.

SCHOOL SUBJECTS

Science: forces, floating and materials. Maths: counting and comparing. Design and technology: modelling and improvement.

My project record

Measuring: Counters carried before water came in

	BOAT A	BOAT B
Test 1		
Test 2		
Test 3		

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · PROJECT 08 RENEWABLE ENERGY & BUILDING DESIGN

Solar Heat Explorers

YOUR QUESTION

Which safe surface or cover warms more in sunlight?

Roofs, cars and water tanks get hot in the sun. Some colours and covers heat up faster than others.

1. **Find the problem**
   Choose two covers or colours to compare, such as black and white paper around identical containers of water.
2. **Measure before**
   Record the starting temperature of each container with an approved thermometer.
3. **Change one thing**
   Put both in the same sunny spot for the same time, for example 30 minutes. Only the cover is different.
4. **Measure again**
   Read both temperatures at the same moment, then again 15 minutes later.
5. **Show and explain**
   Make a temperature table or line chart and explain why the test was fair.

CHOOSE YOUR ROUTE

NO-TECH Paper line chart.

HIGH-TECH Digital graph.

SAFETY

Never look directly at the sun. Handle warm containers with care. Work with an adult nearby.

JOBS THAT USE THIS

Solar technicians, energy auditors, architects and climate-adaptation planners.

SCHOOL SUBJECTS

Science: heat and energy. Maths: temperature, time and graphs. Design: materials and their uses.

My project record

Measuring: Temperature (°C)

	COVER A	COVER B
Start		
15 minutes		
30 minutes		

What happened, and what I learned _____

Next time I will _____

DRAW IT

Tower Stability Engineers

YOUR QUESTION

Which base design helps a tower remain stable?

Buildings in earthquake areas are designed with wide bases and bracing.

1. **Find the problem**
   Build two towers of similar height from the same materials, such as paper, straws or blocks.
2. **Measure before**
   Test tower A with the same gentle tray shake for 5 seconds. Record whether it stands, leans or falls.
3. **Change one thing**
   Build tower B with one change: a wider base or cross-bracing.
4. **Measure again**
   Test tower B the same way, three times.
5. **Show and explain**
   Make labelled drawings of both designs and a results table.

CHOOSE YOUR ROUTE

NO-TECH Labelled drawings and a results table.

HIGH-TECH Photo sequence of each test.

SAFETY

Keep towers below waist height and use light materials only. Work with an adult nearby.

JOBS THAT USE THIS

Architects, civil engineers, safety inspectors and disaster-resilience specialists.

SCHOOL SUBJECTS

Science: forces and stability. Maths: height, width and measuring. Design and technology: limits, prototypes and iteration.

My project record

Measuring: Shake test result (stood, leaned or fell)

	TOWER A	TOWER B
Test 1		
Test 2		
Test 3		

What happened, and what I learned _____

Next time I will _____

DRAW IT

Sound Detectives

YOUR QUESTION

Which materials reduce sound most effectively?

Classrooms, homes and hospitals all need quieter spaces. Some materials block sound better than others.

1. **Find the problem**
   Pick three safe everyday materials to test, such as a towel, cardboard and foil.
2. **Measure before**
   Play a quiet, steady sound. Stand at a marked distance and rate the loudness from 1 to 5, or read an approved sound meter.
3. **Change one thing**
   Put one material between the sound and the listener. Keep the distance and volume the same.
4. **Measure again**
   Rate or measure again for each material.
5. **Show and explain**
   Make a table of ratings and recommend the material that worked best.

CHOOSE YOUR ROUTE

NO-TECH Paper rating table.

HIGH-TECH Sound-level app, with adult approval.

SAFETY

Keep sounds quiet. Never use headphones at high volume. Work with an adult nearby.

JOBS THAT USE THIS

Acoustic engineers, product designers, hearing-health professionals and sound technicians.

SCHOOL SUBJECTS

Science: sound and vibration.
Maths: scales and comparing.
Technology: measuring tools.

My project record

Measuring: Loudness (1 very quiet to 5 very loud) or meter reading

	RATING OR READING
No material	
Material 1	
Material 2	
Material 3	

What happened, and what I learned _____

Next time I will _____

DRAW IT

EXPLORER · YOUR OWN IDEA

Plan a project of your own

Found a problem that is not in this book? Use this page to plan it safely with an adult.

A **Notice**
What is being wasted, difficult, unstable or not working well at home or school? Describe it or draw it.

B **Ask**
Write one question you can answer by counting or measuring.

C **Measure before**
What will you count or measure? Write the unit, tool, date and result.

D **Change one thing**
What one small change will you try? What do you think will happen?

E **Measure after**
Use the same tool and method. Write the date, result and unit.

F **Explain**
Did it get better, worse or stay the same? What might explain it? What would you try next?

> **Remember:** a failed idea can still make a good project. Your job is to show what you tried and what you found.

LEVEL 2

Investigator

Investigate and analyse

Move beyond the obvious. Explore real industry problems, research credible sources, analyse data, work out costs and test a practical recommendation.

01 The Sixty-Litre Dinner

02 The Sugar You Did Not Order

03 Why Prayer Times Differ

04 The Thing That Keeps Breaking

05 The Four-Hundred-Unit Leak

06 The Ten Minutes That Teach

07 Where The Money Actually Went

08 The Rule Nobody Follows

09 The Lie This Street Believes

10 The Trigger

11 The Cheapest Clean

12 The Question Nobody Asked

Your six-week project

A suggested plan for one Investigator project. It can take longer when data or permissions take time.

WEEK	WHAT YOU DO	WHAT YOU PRODUCE
1	**Choose and define** Pick a project, say whose problem it is and write a focused question.	Question card
2	**Research and baseline** Talk to an expert through your teacher, take your first measurements and record sources.	Baseline and source list
3	**Cost and plan** Work out what the problem costs or wastes, note the limits and write a prediction for one change.	Costed problem statement
4	**Make the change** Carry out your one change and keep recording.	Evidence log
5	**Repeat and analyse** Measure again the same way, log failures and anything else that changed.	Comparison and failure log
6	**Explain and defend** Prepare your build, one-page explainer, evidence and relationship record, then present.	Defence and submission

DO NOT SKIP THE BASELINE

If you change something before you record how it was, you cannot make a fair before-and-after comparison.

WHAT MAKES A STRONG PROJECT

A clear problem, a measurable cost or impact, a repeatable method, one change, comparable before-and-after results, an honest failure log and a conclusion that admits its limits.

The nine things to keep

A full Investigator project produces nine pieces of evidence. Start collecting them from week 1.

1. **Question card**
   the problem and the question you will answer
2. **Expert interview pack**
   questions and notes from an expert conversation, arranged by a teacher
3. **Evidence log**
   dated measurements, sources and observations
4. **Failure log**
   what went wrong, what changed and what you learned
5. **The build**
   the prototype, intervention or practical change
6. **One-page explainer**
   problem, method, before-and-after result and limits
7. **Identity card**
   project title, purpose and key information
8. **Relations ledger**
   ten people across your portfolio who reviewed your work, recorded safely (page 44)
9. **Defence**
   a short explanation and answers to questions you did not prepare

KEEP YOUR EVIDENCE TRACEABLE

Use dates, units, source names and the same method before and after. Keep your original notes. Label estimates as estimates. Never hide a result that did not match your prediction. Attach extra pages when the space runs out.

PRIVACY AND SAFEGUARDING

Never contact an adult outside school on your own. A teacher arranges expert contact and keeps any names. Get permission before collecting information or taking photos.

How do you like to solve problems?

This is a short check of what you enjoy today. It is not a test and not a label. Tick as many as you like.

A · I like to…

- ☐ build, make or test things with my hands
- ☐ observe nature, materials or how things work
- ☐ solve number, pattern or logic challenges
- ☐ understand people, feelings and different points of view
- ☐ organise ideas, plan steps and make things work better
- ☐ create stories, designs, visuals or new ideas

B · I enjoy working…

- ☐ on my own, quietly
- ☐ with one partner
- ☐ in a small team where we share ideas
- ☐ by talking to people and learning from them

C · When something goes wrong, I…

- ☐ try another design or method
- ☐ look for more evidence and check my guesses
- ☐ ask someone how they see the problem
- ☐ break the problem into smaller steps

PROJECTS YOU MIGHT ENJOY

Systems and evidence: The Four-Hundred-Unit Leak, The Sixty-Litre Dinner

People and behaviour: The Trigger, The Ten Minutes That Teach, The Question Nobody Asked

Analysis and decisions: Where The Money Actually Went, The Sugar You Did Not Order

Design and critical thinking: The Thing That Keeps Breaking, The Rule Nobody Follows, The Lie This Street Believes

Space and science: Why Prayer Times Differ, The Cheapest Clean

My top interests today _____

The project I will start with _____

These are suggestions, not rules. Your interests can change, and trying something unfamiliar is part of learning.

A strong Investigator summary

EXAMPLE · MADE-UP NUMBERS

The Four-Hundred-Unit Leak, summarised the way an assessor wants to read it. The classroom and the numbers are invented to show the format.

Problem	Lights and fans in one classroom stay on during the 30-minute lunch break.
Cost of the problem	6 lights (40 W) + 2 fans (80 W) = 400 W. 400 W for half an hour is 0.2 units (kWh) per break. Ratings from the facilities officer.
Baseline	Left on during break on 17 of 20 school days (tally by two class monitors, weeks 1–4). About 3.4 units a month.
One change + prediction	A "last out, switch off" card on the door and a weekly switch monitor. Prediction: left on fewer than 8 days.
After	Left on during break on 5 of 20 school days (weeks 5–8, same monitors, same tally). About 1.0 unit a month.
Other factors	Week 6 had exams and shorter breaks. Weeks 5–8 were cooler, so fans were needed less.
Conclusion and limits	Switch-offs went from 3 to 15 days in 20. Monitors may have missed days. We cannot tell whether the card or the monitor made the difference.
Next test	Use the card alone, with no monitor, in a second classroom for four weeks.

WHY IT SCORES WELL

The cost is calculated, not guessed. The baseline and the after-count use the same method. It names two confounders and admits what it cannot prove.

QUESTIONS TO EXPECT IN THE DEFENCE

Why 20 days? Who checked the monitors' counts? What would you do if the card alone made no difference?

The Sixty-Litre Dinner

YOUR QUESTION

Where does the hidden water footprint of a meal come from?

1. **Find the problem**
   Choose one familiar meal. Research or use teacher-provided estimates for the water used across its ingredients. State the source and how uncertain it is; never present estimates as exact household measurements.
2. **Measure before**
   List every ingredient in your usual version of the meal and its estimated water footprint in litres, with the source of each figure.
3. **Change one thing**
   Create an ingredient inventory, compare two versions of the meal and identify one realistic lower-water swap. Weigh nutrition, cost and culture rather than assuming one choice fits everyone.
4. **Measure again**
   Recalculate the litres for the new version with the same sources and units, then compare.

WHAT TO PRODUCE

A sourced water-footprint breakdown, a comparison chart and a practical recommendation.

NO-TECH Hand calculations and a poster.

HIGH-TECH Spreadsheet and charts.

CAREERS THAT USE THIS

Agriculture, food manufacturing, water management and climate consulting.

SCHOOL SUBJECTS

Science: ecosystems, resources and climate. Maths: ratios, percentages and data. English: judging sources and building an argument. Geography: food systems and supply chains.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Sugar You Did Not Order

YOUR QUESTION

How much sugar is listed in common packaged drinks or snacks, and how does serving size change the comparison?

1. **Find the problem**
   Compare nutrition labels for a small set of products. Use public labels or approved packaging. Do not diagnose, shame anyone or prescribe diets.
2. **Measure before**
   For each product, copy the serving size, total sugars per serving and, only if the label lists it, added sugars.
3. **Change one thing**
   Change one thing: how you compare. Recalculate total sugars per 100 g or ml and per full pack. Total sugars include natural sugars, so call it added sugar only if the label says so.
4. **Measure again**
   Rank the products per serving, then per 100 g or ml and per pack. Which product moves, and why?

WHAT TO PRODUCE

A label dataset, a calculation sheet and a balanced public-information infographic.

NO-TECH Graph paper and hand calculations.

HIGH-TECH Spreadsheet or visualisation.

CAREERS THAT USE THIS

Public health, nutrition science, food labelling and preventive medicine.

SCHOOL SUBJECTS

Biology: nutrition and body systems. Maths: unit conversion, ratios and percentages. Media literacy: claims and labels. English: clear public communication.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

Why Prayer Times Differ

YOUR QUESTION

How can location and date affect a calculated time or direction?

1. **Find the problem**
   Investigate how latitude, longitude, date and the calculation method change a time or direction output. Treat religious practice with respect: this is a mathematical investigation, not a religious ruling.
2. **Measure before**
   Record the output for your own location and today's date, with every setting written down.
3. **Change one thing**
   Use a reliable dataset or approved calculator. Change one input at a time (location, date or method) and document the settings.
4. **Measure again**
   Record each new output with all other settings unchanged, and explain why results differ.

WHAT TO PRODUCE

A reproducible input-output table, method notes and an explanation of the sources of variation.

NO-TECH Printed tables and calculations.

HIGH-TECH Spreadsheet or mapping tool.

CAREERS THAT USE THIS

Astronomy, geospatial technology, navigation and scientific software.

SCHOOL SUBJECTS

Earth and space science: rotation and coordinates. Maths: angles, time and coordinates. Computing: inputs, algorithms and reproducibility. Geography: location.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Thing That Keeps Breaking

YOUR QUESTION

Can a small redesign reduce repeated failure in an everyday object?

1. **Find the problem**
   Choose a safe, non-electrical object or an approved mechanism that fails again and again. Define exactly what counts as a failure before testing.
2. **Measure before**
   Count how many times it fails in a fixed number of uses, for example 20.
3. **Change one thing**
   Identify one likely cause, make one controlled design change and keep everything else the same. Never take apart mains-powered or hazardous equipment.
4. **Measure again**
   Repeat the same number of uses in the same way and count the failures again.

WHAT TO PRODUCE

A failure log, a labelled design, test results and a justified redesign.

NO-TECH Sketches, a physical prototype and a table.

HIGH-TECH CAD mock-up or spreadsheet.

CAREERS THAT USE THIS

Mechanical engineering, robotics, maintenance, manufacturing and product design.

SCHOOL SUBJECTS

Physics: forces and materials. Maths: counts and rates. Design and technology: systems, limits and iteration. Computing: optional logic and control.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Four-Hundred-Unit Leak

YOUR QUESTION

Where might energy be wasted in a room or school routine?

1 Find the problem

Use an approved energy-use log for a room or routine. Never open electrical panels or handle wiring. Identify one measurable behaviour or device-use pattern.

2 Measure before

Record energy use (units or kWh), or how long devices stay on, over one defined period.

3 Change one thing

Propose one low-cost change, such as a switch-off routine, and agree it with the people who use the room.

4 Measure again

Measure the same thing over a period of the same length. Note weather, occupancy and anything else that changed.

WHAT TO PRODUCE

Before-and-after data, a simple cost estimate and an evidence-based recommendation.

NO-TECH Manual log and graph.

HIGH-TECH Spreadsheet dashboard.

CAREERS THAT USE THIS

Energy auditing, facilities management, smart buildings and utilities.

SCHOOL SUBJECTS

Physics: energy and power. Maths: units, rates, percentages and cost. Geography: sustainability. English: report writing.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Ten Minutes That Teach

YOUR QUESTION

Which short learning activity helps learners remember or apply an idea?

1. **Find the problem**
   Choose a small, low-risk topic and compare two approved activity formats. Participation is voluntary and anonymous; collect no sensitive personal data.
2. **Measure before**
   Give a short before-task on the topic and record only the group's average result.
3. **Change one thing**
   Run the two activity formats with the same learning goal and the same amount of time.
4. **Measure again**
   Give the same short task afterwards and compare group results only. Discuss sample size and prior knowledge.

WHAT TO PRODUCE

A lesson prototype, an anonymised result summary and an improvement proposal.

NO-TECH Paper exit tickets and a tally chart.

HIGH-TECH Simple quiz or form, with school approval.

CAREERS THAT USE THIS

Education technology, teacher development, curriculum design and learning analytics.

SCHOOL SUBJECTS

Education: learning design and assessment. Maths: averages and simple data. Psychology: memory and attention. English: writing instructions.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

Where The Money Actually Went

YOUR QUESTION

Can one change to how a small project plans its budget bring spending closer to the plan?

1. **Find the problem**
   Use a made-up or teacher-created budget, or a voluntary project budget with no personal financial details. Sort costs into categories and separate needs from wants.
2. **Measure before**
   Round 1: write the planned cost for each category, then record the actual cost. The difference (variance) in each category is your baseline.
3. **Change one thing**
   Change one thing about planning, such as checking two prices before buying or adding a small buffer to one category. Never ask classmates about family finances.
4. **Measure again**
   Round 2: plan and record actual costs in the same categories, then compare the variances from both rounds.

WHAT TO PRODUCE

A transparent budget, a variance chart for both rounds and an ethical spending recommendation.

NO-TECH Ledger and calculator.

HIGH-TECH Spreadsheet.

CAREERS THAT USE THIS

Banking, fintech, accounting, entrepreneurship and social enterprise.

SCHOOL SUBJECTS

Maths: decimals, percentages and budgeting. Business studies: costs, revenue and trade-offs. Citizenship: fairness and ethical choices. Computing: data tables.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Rule Nobody Follows

YOUR QUESTION

Why might a school or community rule be difficult to follow?

1. **Find the problem**
   Select a non-sensitive, school-approved rule. Observe how often it is followed using anonymous counts in a public setting. Never name or photograph anyone.
2. **Measure before**
   Count, anonymously, how often the rule is followed in a set time and place.
3. **Change one thing**
   Identify the rule's purpose, who it affects and what makes it hard to follow. Propose one clearer message or process change, with permission.
4. **Measure again**
   Count again in the same place and time after the change, and collect feedback with permission.

WHAT TO PRODUCE

A stakeholder map, an anonymous observation summary and a fair improvement proposal.

NO-TECH Tally sheet and poster.

HIGH-TECH Digital survey.

CAREERS THAT USE THIS

Public administration, legal services, policy research and community development.

SCHOOL SUBJECTS

Civics: rules, rights and responsibilities. English: argument and evidence. Maths: survey summaries. Design: people-centred problem solving.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Lie This Street Believes

YOUR QUESTION

How can we check a dramatic online claim before sharing it?

1. **Find the problem**
   Study teacher-selected examples of misleading headlines or synthetic media. Never create deceptive content or target real people.
2. **Measure before**
   Before checking, write each claim, where you first saw it and how sure you are that it is true, from 1 to 5.
3. **Change one thing**
   Change one thing: apply the same checking routine to every claim. Trace the original source and date, compare it with two reliable, independent sources and record each step.
4. **Measure again**
   Rate your certainty again and give each claim a verdict: supported, misleading or unproven. You are measuring how checking changes your confidence, not the claim.

WHAT TO PRODUCE

A claim-checking checklist, a source trail and a media-literacy explainer.

NO-TECH Printed source pack and poster.

HIGH-TECH Browser research and slide deck.

CAREERS THAT USE THIS

Journalism, cybersecurity, digital platforms, communications and fact-checking.

SCHOOL SUBJECTS

Digital literacy: judging sources and online safety. English: argument and bias. Computing: AI-generated media. Social studies: how information spreads.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Trigger

YOUR QUESTION

How does the design of a reminder influence completion of a simple task?

1. **Find the problem**
   Choose a harmless, school-approved routine, such as returning library books. Use a voluntary, anonymous, group-level test. No diagnosis and no manipulation.
2. **Measure before**
   Record the group's completion count with the current reminder over a set period.
3. **Change one thing**
   Design a second, neutral reminder. Keep the task and the time period the same.
4. **Measure again**
   Use the new reminder for a period of the same length and compare the group counts. Discuss consent and limits.

WHAT TO PRODUCE

An ethical test plan, group results and a redesigned reminder.

NO-TECH Paper tally and display.

HIGH-TECH Approved form or spreadsheet.

CAREERS THAT USE THIS

Behavioural research, human-centred design, public services and product development.

SCHOOL SUBJECTS

Psychology: habits and attention. Maths: proportions and comparisons. Ethics: consent and privacy. Design: user experience and iteration.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Cheapest Clean

YOUR QUESTION

Which filter material removes a chosen safe contaminant most effectively and affordably?

1. **Find the problem**
   Use an approved, non-hazardous model mixture. Never mix household chemicals, taste samples or claim a model test proves water is safe to drink.
2. **Measure before**
   Rate or measure the mixture before cleaning, using one fixed scale and the same background.
3. **Change one thing**
   Change one variable only: the filter material, such as cloth or sand. Keep the mixture, amount, container and pouring speed the same.
4. **Measure again**
   Measure after each material in the same way, repeat each test three times, and record the cost and disposal of each.

WHAT TO PRODUCE

A controlled test, a results table, a cost comparison and a limitations statement.

NO-TECH Lab notebook and hand-drawn chart.

HIGH-TECH Spreadsheet.

CAREERS THAT USE THIS

Materials science, environmental chemistry, water treatment and laboratory testing.

SCHOOL SUBJECTS

Chemistry: mixtures and material properties. Maths: unit costs and data. Science practice: variables, controls and safety. English: technical explanation.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

The Question Nobody Asked

YOUR QUESTION

Whose needs might be missed when a public space or service is designed?

1. **Find the problem**
   Choose a public, school-approved space or service. Use observation and public information. Never interview anyone without permission or collect identifying details.
2. **Measure before**
   Count the barriers you can observe for different users: age, mobility, language and other needs.
3. **Change one thing**
   Build an inclusive user-needs map and propose one improvement, without making assumptions about individuals.
4. **Measure again**
   Check your proposal against the same map and count which barriers it would remove.

WHAT TO PRODUCE

An annotated service map, evidence notes and a prototype proposal.

NO-TECH Annotated drawing and paper prototype.

HIGH-TECH Digital map or mock-up.

CAREERS THAT USE THIS

Urban planning, social research, public services, accessibility and civic technology.

SCHOOL SUBJECTS

Social studies: communities and inclusion. Maths: sorting and simple survey data. Design: accessibility and user-centred design. English: proposal writing.

My project record

Need more space? Attach extra pages · Plan: page 23

Whose problem is it, and what does it cost or waste? _____

	NUMBER + UNIT	DATE	METHOD / SOURCE
Before			
After			

My one change _____

What else might have affected it? _____

What I learned _____

My next test _____

CHART OR SKETCH

ASSESSMENT AND CERTIFICATION

How your work is assessed

Finish one project properly before you start the next. A workbook full of half-projects is not a portfolio.

EXPLORER: FINISHED MEANS

- [ ] A clear question or problem
- [ ] A dated measurement before the change
- [ ] One change or design improvement
- [ ] The same measurement repeated after
- [ ] A simple record: notes, table, drawing or approved photo
- [ ] A conclusion and one next improvement

INVESTIGATOR: FINISHED MEANS

- [ ] Problem, question and who it affects
- [ ] Cost or impact, with its source
- [ ] Baseline with unit, date and method
- [ ] One change and a written prediction
- [ ] After-measurement using the same method
- [ ] Failure log and other factors
- [ ] Conclusion, limits and next test
- [ ] A short explanation and defence

Each project is marked out of 20

6 Artefact
What you built or changed, and the evidence it worked or did not.

6 Process and failures
Your baseline, fair test, honest failure log and sources.

8 Defence
How well you explain your decisions and answer new questions.

Two gates. No project is scored without a valid baseline. For Investigator level assessment, your portfolio also needs a relations ledger of ten people in total across your projects, not ten for each one (page 44). An adult arranges every contact.

LEVEL ASSESSMENT

With 3 or more finished projects at your level, apply for assessment. An assessor reviews your portfolio, asks you to defend selected projects and checks the skills for your level. Three projects let you apply; they are not an automatic pass. The quality of your evidence and the skills you show decide the result.

YOUR FREE FIRST ASSESSMENT

Written feedback on one finished project, free. It does not award a certificate or move you up a level. Level assessment reviews your whole portfolio and is charged: ask us for the price list for your country.

SUBMIT AND PROGRESS

Send your free project assessment

You can complete every project on your own. When one is finished, send it to EAD for your free assessment.

1. **Finish and fill in**
   Complete your project record, or the submission template on pages 42 to 44.
2. **Put it in one place**
   Scan or photograph your pages and evidence into one Google Drive folder or PDF. Set sharing to “anyone with the link can view”. Remove private details.
3. **Send it to EAD**
   Scan the QR code or go to earlyagedevelopment.com. In the form at the bottom of the page, tick “Others – EAD Labs project submission” and paste your link with your project name and route.
4. **Get your feedback**
   EAD reviews your project and sends written feedback on every part. Certification comes later, through level assessment (page 39).

Scan to submit
earlyagedevelopment.com

JOIN AN EAD SEMESTER PROJECT

Every semester, EAD teachers run guided projects at Explorer, Investigator and Researcher level, with a term plan, checkpoints, feedback and a team. Finishing a semester builds your portfolio; certification still comes through assessment.

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SUBMIT AND PROGRESS

My portfolio tracker

Record every finished project. You need at least 3 at your level before applying for level assessment; 5 is better. Three is the minimum to apply, not an automatic pass.

#	DATE	PROJECT AND LAB	LEVEL	EVIDENCE KEPT WHERE	FEEDBACK
1					
2					
3					
4					
5					
6					

BEFORE APPLYING, CHECK EACH PROJECT HAS

- A clear problem and who it affects.
- Evidence with dates, sources and your own contribution.
- What you tested, changed or recommended.
- Results, limits and reflection.
- A short explanation you can defend.
- Investigator: ten people in your relations ledger across all your projects.

NEXT LEVEL

A certificate at one level confirms you have shown the skills for that level and opens the next. Explorer leads to Investigator; Investigator leads to Researcher in **EAD Impact Innovators**.

SUBMISSION TEMPLATE · PAGE 1 OF 3

Project, problem and measurement

Use with any project. Write clearly and add extra pages or files when needed.

Learner details

Learner or team name	
School or city (optional)	
Project and lab	
Route: High-Tech or No-Tech	
Start and finish dates	

1 · The problem

What real problem did you investigate? Who has it?	
What does it cost, waste or affect?	
Your main question	

2 · Baseline, before the change

What you measured	
Result: number and unit	
Date(s)	
Tool or source	
Method: exactly how you measured	

3 · Your one change

What you changed	
Why you chose it	
What you kept the same for a fair test	

Results and evidence

Use with any project. Write clearly and add extra pages or files when needed.

4 · After the change

Result: same number and unit	
Date(s) after the change	
Same method and tool? Explain	
Difference: before and after	
What else might have affected it?	

5 · What you built or recommended

Your solution, model, prototype or recommendation	
Evidence attached: photos, charts, notes, links	
What failed, surprised you or had to change?	
What you would test next	

People, defence and final check

6 · Relations ledger: ten people across your portfolio

Keep one ledger for all your Investigator projects and send the latest copy with each submission. Ten people in total, not ten per project. An adult arranges every contact. Use initials or roles only.

ROLE	INITIALS	PROJECT	DATE	WHAT THEY SAID
1 · Expert				
2 · Person affected				
3 · Person affected				
4 · Person affected				
5 · Peer reviewer				
6 · Peer reviewer				
7 · Peer reviewer				
8 · Saw finished work				
9 · Saw finished work				
10 · Saw finished work				

7 · Your defence and honest reflection

In 3 to 5 sentences: what you found, what you changed and what the numbers show	
The biggest limit of your project	
Link to a short explanation video (optional)	
Learner signature and date	
Adult supporter: name and date	

Ready? Put this template and your evidence into one shareable link and send it as shown on page 40.

OPTIONAL · QUR'ANIC RESEARCH REFERENCES

A reason to look closely

This section is optional. It lists reference numbers from EAD's public Architecture of the Word framework. It gives no interpretation or ruling. Learners may use a translation and sources chosen by their family or school.

HOW TO USE THIS SECTION

A verse may help you choose what to look at when you form your question, and help you reflect at the end. It is never evidence, never a source in your evidence log, and never a reason for someone you interview to agree with you. Name the translation you use.

Seeds, plants and food systems

Qur'an references: 6:95; 6:141; 13:4; 22:5; 80:24–32

Research prompt: What questions about seeds, crops, food or growing conditions could you investigate through observation or reliable data?

Water and living systems

Qur'an references: 11:7; 21:30; 23:18; 25:48–49; 67:30

Research prompt: What can you measure about water use, availability, conservation or its role in living systems?

Balance, environment and waste

Qur'an references: 15:19; 25:2; 54:49; 55:7–9; 7:31; 17:26–27; 25:67; 30:41

Research prompt: What local resource-use or waste question could you explore? Which measurements would describe it accurately?

Health and wellbeing

Qur'an references: 5:32; 2:195; 4:29; 2:168; 7:31

Research prompt: What public information or safe everyday observation could help you investigate a health, nutrition or wellbeing question?

Building, materials and energy

Qur'an references: 57:25; 18:96; 34:12; 36:80; 24:35; 13:2; 35:41

Research prompt: What can you test safely about strength, materials, energy use, light or movement?

Learning and knowledge

Qur'an references: 96:1–5; 17:36; 39:9; 2:269

Research prompt: How can you check whether information is reliable before using it in a project?

OPTIONAL · QUR'ANIC RESEARCH REFERENCES

A reason to look closely (continued)

Fairness, records and responsible decisions

Qur'an references: 2:282; 83:1–3; 4:135; 5:8; 4:58

Research prompt: What information should be recorded to make a decision or comparison transparent and fair?

Media, claims and verification

Qur'an references: 20:66; 2:204; 7:116

Research prompt: What steps can you take to check a claim, image or video before sharing it?

People, behaviour and communities

Qur'an references: 12:53; 75:2; 89:27; 49:13; 3:103; 30:22

Research prompt: What different perspectives should be heard when investigating a shared community problem?

Space and observation

Qur'an references: 55:33; 15:14–15; 41:53

Research prompt: What can you investigate using public astronomy, space or observation data?

Materials and measurement

Qur'an references: 99:7–8; 10:61; 25:2

Research prompt: How do units, careful measuring and honest recording affect how reliable a test is?

IF YOU USE A VERSE IN YOUR PROJECT

Write it on your question card at the start, and come back to it when you reflect at the end.

Surah, number and ayah _____

Translation used _____

What it made me look at closely _____

At the end: what I found, and what my evidence cannot tell me _____

MY WORKBOOK

Notes

MY WORKBOOK

Ideas and sketches

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