

PRIMARY STE

Investigation Journal

4th Class

My science, technology and engineering record book



NAME

CLASS

SCHOOL



NATURE OF STEM

01

Living things – one organ in depth, classifying & ecosystems

- L1 STEM That Changed Ireland

- L2 One Organ in Action: Investigating the Heart

- L3 The Brain, Senses and Reflexes



Lesson 1

STEM That Changed Ireland

nature-of-stem

What you need: station research cards (famous bridge, wind farm, Irish scientist, clean water, air-filled tyre, submarine) · Investigation Journal page · poster paper for presenting · coloured pencils · blank question cards for the 'I wonder' board

Words to use

STEM · Invention

Our question

What Irish STEM person, place or invention did our group study, and what changed because of it?

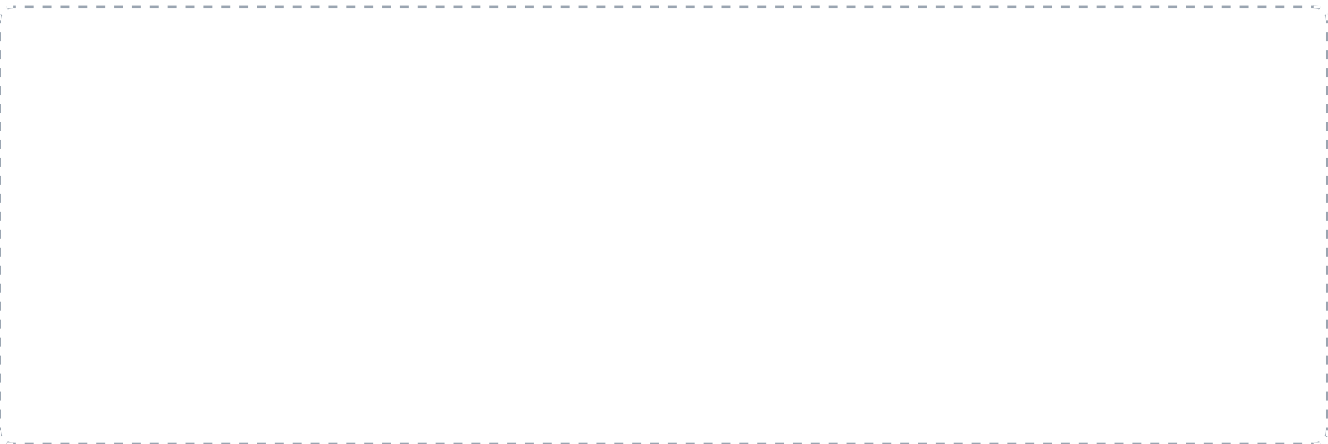
I predict...because...

What it is

What people used before

What changed

Draw and label what you see



Labels I used

Say your finding as a 'Before...the ...changed life by..' sentence.



Lesson 2

Lesson 2

One Organ in Action: Investigating the Heart

living-things

What you need: stopwatch · Investigation Journal data table page

Words to use

Pulse · Fair test

Our question

Does the type of activity change how fast the heart beats?

I predict...because...

Sort these words into Change, Measure and Keep the same

the activity · how fast the heart beats · the counting time · who counts · the stopwatch

Change – the ONE thing we change

Measure – the ONE thing we measure

Keep the same – to make it fair

Our results

What we changed	What we measured

Did the pulse rise with harder activity?

What keeps a heart healthy?

Lesson 3

The Brain, Senses and Reflexes

living-things

What you need: 30 cm ruler · cloth drawstring feely-bag holding 3 to 4 safe everyday objects (conker, smooth pebble, wooden block, sponge) · Investigation Journal page

Words to use

Stimulus · Reaction time · Reflex

Our question

Does being distracted change how fast you can catch the ruler?

I predict...because...

How far did the ruler fall before we caught it? (in cm)

Condition	Catch distance (cm)

Draw a bar chart of our results

Which condition gave the lower catch distances?

Did that match your prediction?

Primary STE

Primary STE — 4th Class (Stage 3, Year 2)

This Investigation Journal and its companion Teacher Resource Book are part of Coding Ireland's online learning platform — a full year of science, technology and engineering for 4th Class.

Pupils record their own investigations on these pages: what they wonder, what they predict, what they observe and what the evidence shows. The thinking stays on paper and in the talk; the platform carries the activities.

Coding Ireland · Primary STE · 4th Class

Aligned to the NCCA Primary Science, Technology & Engineering specification (Stage 3).

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How to use your Investigation Journal

1. **One page, one investigation.** Each page belongs to a lesson. Write the date and your name at the top if your teacher asks.
2. **Predict first.** Where the page asks what you think will happen, write your idea before you start. A prediction is never wrong — it's the start of the science.
3. **Record what really happens.** Draw, measure, tally or fill the table with what you actually observe — not what you hoped for.
4. **Use the word bank.** The words at the top of some pages are there to help you write and label clearly.
5. **Talk it over.** The think-about prompts are for discussion — share what the evidence shows with your group and your class.

Science words to know

Fair test — Changing only one thing and keeping everything else the same

Invention — A new thing someone makes or works out that did not exist before, usually to solve a problem.

Pulse — The beat you can feel as your heart pushes blood around your body

Reaction time — The short time between your senses spotting a stimulus and your body doing something about it

Reflex — A very fast reaction your body makes without you having to think about it

STEM — Science, Technology, Engineering and Maths — the ways people work things out, invent tools and build things to solve problems.

Stimulus — Something happening around you that your senses pick up, like a sound, a light or a touch