



Your research question

Lesson plan: launch a student research project using the reef dataset, with question ideas, a planner and a rubric



Ages	14 to 18 (grades 9 to 12)
Time	60 minutes to launch, then 2 to 4 weeks of project time
Group	Pairs or small groups
Where	Computer room or laptops
You need	The slides, the workbook and CSV files, one planner per group, the rubric

What students learn

- How to turn curiosity into a testable research question.
- How to plan an analysis before starting it.
- How to write up research: introduction, method, results, discussion and conclusion.
- How to use data honestly, including stating its limits.

Before the lesson

1. Share all data files. Print one **research planner** per group and the **rubric**.

The lesson

- 1 **Good questions 15 minutes, slides 1 to 3.** Groups choose or invent a question.
- 2 **Plan it 25 minutes, slide 4.** Groups fill in the planner. Check each plan before they start.
- 3 **Write it up 10 minutes, slides 5 and 6.** Share the structure and the honesty rules.
- 4 **Wrap up 10 minutes, slide 7.** Groups share their question in one sentence.

Answers and what to listen for

Good fits: this project suits senior high school research subjects, IB internal assessments and extended essays, and GCSE or A level data skills. Idea 7 needs the Sites table and a lookup, a good challenge for confident groups.

Making it easier or harder

- **Shorter version:** run it as a single lesson with a one-page write-up.
- **Longer version:** students present posters at a school science fair.
- **Real data:** for serious projects, MCP may be able to share its real, unadjusted data. Contact us through the website.

Curriculum links

- **Science and statistics:** investigation design and reporting.
- **Philippine senior high school:** research skills and Field Experience.
- **IB:** internal assessment and extended essay skills.

The teacher reading has the science behind every slide, with links to the sources.

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