



SPACE ACADEMY

GLOBAL / REGIONAL SCIENCE EDUCATION

Pacific Sky & Island Science

REGIONAL LEARNING EXTENSION

Locally adaptable discovery for island and coastal settings.

FOUR FOCUSED LEARNING INVESTIGATIONS

Independent free astronomy education / global Academy

Teach with local relevance.

Coastal, island and community-sensitive learning with accessible astronomy and evidence-led environmental enquiry, adaptable across varied Pacific contexts.

GLOBAL SCIENCE, LOCAL QUESTIONS

ASTRAVYR Space Academy uses internationally relevant astronomy and Earth-science ideas. These are adaptations for discussion and educational enquiry, not claims about a particular school, reserve, island, city, telescope or research partnership.

01 The horizon and latitude

02 Sky and weather

03 Coastal light choices

04 Earth from above

A facilitator selects suitable ages, languages, accessibility, curriculum framing and local safety. All investigations have a paper/indoor version. Original Indigenous and historical cultural content requires knowledgeable local review.

Explore. Explain. Question.

01 / LEARNING QUESTION

The horizon and latitude

Would a modelled reference star look the same from two island locations with different latitudes?

ACTIVITY

Compare broad latitude presets or printed star-model examples, without using learner home addresses or claiming actual observing conditions.

LOOK FOR

Two labelled qualitative horizon comparisons and stated assumptions.

Reference: <https://astro4edu.org/resources/>

02 / LEARNING QUESTION

Sky and weather

Why might a clear observing plan change from night to night?

ACTIVITY

Distinguish astronomy geometry from cloud, humidity and visibility; produce a weather-dependent indoor/optional-outdoor decision tree.

LOOK FOR

A safe weather contingency plan with two indoor alternatives.

Reference: <https://science.nasa.gov/earth/>

Learn. Adapt. Apply.

03 / LEARNING QUESTION

Coastal light choices

How could useful coastal lighting avoid unnecessary spill?

ACTIVITY

Critique a fictional coastal path using five responsible-lighting principles, discussing safety and locally verified ecological considerations.

LOOK FOR

A reasoned paper improvement plan that avoids unsourced wildlife impact claims.

Reference: <https://darksky.org/what-we-do/advancing-responsible-outdoor-lighting/>

04 / LEARNING QUESTION

Earth from above

How might Earth observation inform a hypothetical island community question?

ACTIVITY

Choose a possible question about coasts or weather and identify a suitable measured quantity, possible data gaps and ground verification.

LOOK FOR

A satellite mission card separating measurement from inference.

Reference: <https://science.nasa.gov/earth/>

Make learning trustworthy.

FACILITATOR QUALITY CHECKLIST

- Recognise differences among Pacific islands, weather and observing latitudes.
- Seek community educators for local terms, cultural context and relevant ecological examples.
- Never fabricate traditional navigation techniques or imply Indigenous endorsement.
- Use indoor-first lessons when night visits, equipment or internet access are unsuitable.

SHOW YOUR SCIENCE SOURCES

The horizon and latitude / <https://astro4edu.org/resources/>

Sky and weather / <https://science.nasa.gov/earth/>

Coastal light choices / <https://darksky.org/what-we-do/advancing-responsible-outdoor-lighting/>

Earth from above / <https://science.nasa.gov/earth/>

These documents are independent ASTRAVYR teaching resources. Their source references do not imply review, affiliation, endorsement, DarkSky certification or accredited learning. No participant details need to be collected, and no organisation has been contacted through this programme.