

A 45-minute Mayon class

A ready-to-run lesson that uses the Mayon Virtual Field Trip to practice observation, evidence, uncertainty, and volcanic-hazard literacy.

CLASSROOM BOUNDARY

This is a free educational visualization. It is not a live monitoring, forecast, evacuation, or decision-support system. For current activity and instructions, use PHIVOLCS and local authorities.

What learners will do

Learners distinguish an observed landscape feature from an inference; use history and place to interpret an eruption; compare volcanic processes without confusing a scenario with a forecast; and identify an official source to check before acting.

Open the class view

mayonrajan.com/?story=1

Materials: shared display or student devices, this kit, optional slide deck. Suggested ages: upper primary through secondary, with prompts adaptable for general-public groups.

45 minutes, four moves

0-5 min

Open with a question

Show the full cone. Ask students what they can see without being told what it means.

Ask: Which details are observations, and which are interpretations?

5-15 min

Story chapter 1: a cone in layers

Run the first Story chapter. Students sketch one feature and write one inferred process.

Ask: What evidence would make your inference stronger?

15-25 min

Story chapter 2: 1814 Cagsawa

Use Cagsawa to distinguish a surviving site, historical evidence, and a model reconstruction.

Ask: What can the landscape show, and what must come from other sources?

25-34 min

Story chapters 3 and 4

Visit the 2018 south flank, then Daraga. Invite attention to slope, route, heritage, livelihood, and memory.

Ask: Why is a volcano more than its summit?

34-41 min

Hazard literacy

Open one educational hazard layer at a time, then compare with Composite.

Ask: Which conditions matter for each process? What needs a current official source?

41-45 min

Exit ticket

Students answer the claim on the next page and cite their evidence.

Ask: What is the difference between a learning model and a real-time hazard map?

Observe, infer, check

1. Observe. Sketch or describe one feature you see in the Mayon landscape. Do not name a cause yet.

2. Infer. What process might help explain that feature? What makes this an inference rather than a direct observation?

3. Cagsawa. Make three labels: what remains at the site; what a historical source tells us; what the visualization reconstructs.

4. Hazard comparison. For PDC / uson, lava, lahar, and ash: which is especially shaped by terrain, rainfall, wind, or several factors?

5. Exit ticket. “A visually persuasive volcano model is a reliable real-time hazard map.” Agree, disagree, or qualify this claim with one observation, one inference, and one source you would check before acting.

ANSWER GUIDANCE

Listen for evidence, not one “correct” sentence

Observation vs inference: Strong observations point to visible forms such as steep slopes, ravines, the summit, rice plains, or settlement. Strong inferences name a process and make clear that more evidence is needed.

Cagsawa: Strong responses distinguish the belfry/site from historical accounts and from a shortened visual reconstruction. Do not reward certainty that the model does not support.

Hazards: Students should recognize that process behavior depends on more than one factor. The key outcome is that the overlay is illustrative and a current decision needs official, time-specific information.

Exit ticket: A strong answer qualifies or rejects the claim. It cites a direct observation, names an inference, and identifies PHIVOLCS or another official source as necessary before action.

FACILITATION TIP

When a student asks “Is this what will happen?”, turn the question into “What additional evidence and official information would we need before making a decision?”

Explore Mayon at true scale

Scan to begin the guided field trip. Then use the worksheet to separate observation, inference, reconstruction, and uncertainty.



mayonrajan.com/?story=1

KEEP THIS LINE VISIBLE

Mayon Virtual Field Trip is an educational demonstration, not a live warning or evacuation tool. Follow PHIVOLCS and local authorities for current activity and instructions.

Sources and methods: mayonrajan.com/methods/ · Teacher resources: mayonrajan.com/teachers/

Bring the field trip to more learners

The kit can be shared by schools, museums, libraries, science communicators, and local cultural organizations. Keep the methods link and public-safety boundary attached whenever you embed or redistribute the experience.

Core sources

PHIVOLCS Volcano Hazard Maps - Mayon. Official hazard-map context.
volcanohazardmaps.org/map/?id=1047

Smithsonian Global Volcanism Program - Mayon. Reference record and eruption-history context.
volcano.si.edu/volcano.cfm?vn=273030

Bulletin of Volcanology (2021). Context for the conceptual, inferred interior explainer.
doi.org/10.1007/s00445-021-01486-9

NASA SRTM via AWS Terrain Tiles and Esri World Imagery. Local terrain elevation and satellite imagery inputs.

Version 1.0 - 24 July 2026. This kit is maintained with the public Mayon methods and update pages.