**Weekly Lesson Plan (Week-at-a-Glance)**

**Teacher:** Kavitha Jala  **Subject:** Environmental Science  **Course:** Science  **Grade:** 9–10  **Dates:** Oct 15–17, 2025

| **Day** | **Learning Target (LT)** | **Success Criteria (SC)** | **Activation of Learning (5 min)** | **Focused Instruction – I DO (10 min)** | **Guided Instruction – WE DO (10 min)** | **Collaborative Learning – Y’ALL DO (10 min)** | **Independent Learning – YOU DO (10 min)** | **Closing (5 min)** |
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| **Wed, Oct 15 – Introduction to Natural Cyclic Fluctuations** | **LT:** I can describe what natural cyclic fluctuations are and identify examples of long-term and short-term environmental cycles. | **SC1:** I can define the term *cyclic fluctuation* and explain its role in environmental stability. **SC2:** I can classify examples as short-term or long-term fluctuations. | **Strategy:** *Notice/Wonder* — Students view time-lapse images of climate and sea-level changes and list what they notice and wonder. | **Strategy:** *Think Aloud + Visuals* — Teacher models identifying patterns in natural cycles (e.g., carbon cycle, monsoon cycles) using diagrams. | **Strategy:** *Graphic Organizer* — Students complete a flow map of “cause and effect” for one natural cycle with teacher guidance. | **Strategy:** *Jigsaw* — Groups each study one natural cycle (carbon, nitrogen, hydrological) and summarize the pattern. | **Strategy:** *Written Response* — Students summarize one example of cyclic fluctuation and its environmental importance in notebooks. | **Strategy:** *Exit Ticket (3-2-1)* — 3 things learned, 2 questions, 1 example of cyclic fluctuation. |
| **Thu, Oct 16 – Short-Term Fluctuations and El Niño** | **LT:** I can explain short-term climatic fluctuations such as El Niño and their environmental impacts. | **SC1:** I can describe how ocean-atmosphere interactions cause El Niño events. **SC2:** I can analyze effects of El Niño on global ecosystems. | **Strategy:** *Quick Write* — “What might happen if ocean temperatures rise for several months?” | **Strategy:** *Demonstration* — Teacher models El Niño using a water tank and heat lamp simulation, narrating each stage. | **Strategy:** *Socratic Seminar* — Students discuss: “Is El Niño a natural disaster or a natural pattern?” using evidence. | **Strategy:** *Expert Groups* — Groups analyze data maps showing ocean temperature changes, rainfall, and fisheries during El Niño. | **Strategy:** *Choice Board* — Students select one impact area (weather, agriculture, marine life) and create a mini visual summary. | **Strategy:** *Parking Lot* — Students post one misconception and one new fact about El Niño on a class board. |
| **Fri, Oct 17 – Volcanism and Environmental Cycles** | **LT:** I can evaluate how volcanic eruptions influence global climate cycles and ecosystems. | **SC1:** I can explain the connection between volcanic aerosols and temperature fluctuations. **SC2:** I can interpret evidence showing volcanic impacts on past climate events. | **Strategy:** *Engaging Video* — Short NASA clip on volcanic eruptions and global cooling. | **Strategy:** *Analogies + Probing Questions* — Teacher compares volcanic aerosols to “a sunshade” and poses questions linking cause/effect. | **Strategy:** *Digital Whiteboard* — Students collaborate to create a cause-effect chain: “Volcanic eruption → ash in atmosphere → sunlight reduction → cooling.” | **Strategy:** *Gallery Walk* — Groups create posters showing one famous eruption (Tambora, Pinatubo) and its global effects. | **Strategy:** *Independent Project* — Students write a short analysis paragraph comparing El Niño vs. Volcanism as short-term fluctuations. | **Strategy:** *Journaling* — Reflection: “How do short-term fluctuations remind us of Earth’s interconnected systems?” |