

Sunday

Today's focus:

Plate tectonics – the driving force behind all activity on the planet, and a very important concept to understand when you live in California, too.

Standards:

Explicitly, these are 6th-grade standards, but plate tectonics is the driving force behind the rock cycle (4a)

12:00 noon	PS³ Introduction	Jan's introduction to the whole group	
12:15 – 12:30	Pre-assessment		Engage
12:30 – 1:00	Introduction to inquiry and to the week	Team introductions Anne introduces the big concepts for the week	Engage
1:00 – 2:45	Plate Tectonics: The Big Picture	Plate Tectonics Jigsaw Activity	Engage & Explore
2:45 – 3:00	Break		Sustain
3:00 – 3:45	Plate Tectonics wrap-up	Time for discussion and explanation Ruth discusses testable questions	Explain & Apply
3:45 – 3:55	Field Trip Overview	What to bring and what to expect for the next day and a half in the field	
3:55 – 4:00	Day 1 Evaluation		

Monday

Today's focus:

We use clues in the landscape to determine the geologic processes that are occurring, including mountain-building, erosion, terrace formation, and transport of sediments. The Bay Area is a very geologically dynamic region where we can see firsthand the evidence for activity.

Standards:

4a, 4b, 5a, 5c

8:30	The field is the best place to learn	Meet at the school – we'll leave promptly at 8:00 to get to the beach for low tide.	Engage
	Morning stops	(1) Gazos Creek (2) Pebble Beach	Explore
12:00 – 12:45	LUNCH		Sustain
	Afternoon stops	(3) Montara Beach (4) Crystal Springs Dam	Explore
3:30	Arrive back at San Mateo		
3:30 – 3:55	Classroom applications	How can I use this in the classroom?	Apply
3:55 – 4:00	Evaluations		

Tuesday

Morning focus:

A series of questions that guide our observations of rocks and minerals can help us narrow the possibilities of what a given rock could be. Rocks are grouped into sedimentary, metamorphic, and igneous rocks based on the processes involved in their formation, but rocks within each group also share identifiable characteristics. Not all rocks are easily identified, however.

Standards:

4a, 4b

Afternoon focus:

Sediments along the course of a river are different according to their location. We can measure and describe the characteristics of these sediments, and apply them to our understanding of past environments as recorded in sedimentary rocks.

Standards:

5c, 6a-f

8:30-8:45	Field Trip debrief	What can we clarify now that was confusing in the field?	Explain
8:45-9:00	Minerals	K-W-L for minerals	Engage & Explore
9:00-10:00	Exploring minerals	Common minerals and their properties	
10:00 – 10:15	Break		
10:15 – 11:15	Recognizing rock types	Rock ID activity	Explore
11:15-12:00	The Rock Cycle	Phil describes rock types and the rock cycle Science notebook time to pull concepts together	Explain & Apply
12:00 – 12:45	LUNCH		Sustain
12:45 – 3:30	Erosion and deposition field activity	Following a stream from headwaters to mouth – how does it change?	Explore
3:30 – 3:55	Classroom applications	Prepare samples and reflect on field work back at Borel	
3:55 – 4:00	Evaluation		

Wednesday

Today's focus:

Investigation and experimentation in the lab, based on what we know about the field; making measurements of samples we have collected in the field and drawing conclusions based on these measurements

Standards:

5c, 6a-f.

8:30-10:00	Field trip follow up	Work with samples: sorting, measuring, using a microscope	Explore
10:00-10:30	Depositional Environments	How do we use these samples to help us think about the past?	Explain
10:30-10:45	BREAK		
10:45-12:00	Stream Tables I	Experimenting with erosion in the classroom	Explore
12:00 –12:45	LUNCH		Sustain
12:45-2:00	Stream Tables II	Investigating your question further Describing results	Explore
2:00-2:30	Classroom Applications	How can we use stream tables in the classroom?	Apply
2:30-2:45	BREAK		
2:45 – 3:55	Other agents of erosion	How do glaciers and wind erode differently from water? Which rocks are most resistant to erosion? Which are least resistant? How do we recognize erosion in the landscape?	Explain & Apply
3:55 – 4:00	Day 4 Evaluation		

Thursday

Today's focus:

Understanding how rocks form and how erosion and deposition occur has very practical applications in the world and in your everyday life. Additionally, knowing a little about geologic processes makes traveling in California and elsewhere much more interesting.

Standards:

This material goes beyond the standards, but will help you put them in context.

8:30-10:00	California Geologic and human history	The Gold Rush: still feeling the effects	Apply
10:00 – 11:30	Classroom applications	Work in groups or by yourself to design a lesson or a way that you will apply your new knowledge in your classroom	
11:30 - 12:00	Web presentation	Useful web resources <ul style="list-style-type: none"> ▪ Visionlearning ▪ USGS ▪ DLESE 	Apply
12:00 -12:45	LUNCH		Sustain
12:45-1:30	Post-assessment	Show us what you have learned!	Explain
1:30-2:30	Classroom applications	Presentations of your new lessons	
2:30-3:00	Institute evaluations and certificates		
3:00 – 4:00	Virtual Field Trip	The geology of the rest of California	Engage, Explore, Explain, Apply