**Fourth Grade Pacing Guide for POW!**

* All lesson materials will be linked and digital when possible. Materials for students to do investigations/activities in class or at home may need to be provided.
* If you would like to edit the slide decks to meet your classroom needs, please make a copy first so the original copy remains intact.
* Lesson review worksheets / google forms can be sent home as homework (they are not included in lesson time estimates).

**POW! Suggested Pacing Guide**

| Schedule |  |
| --- | --- |
| Week One | * Pre-lesson slide deck - Exploring and Growing in our Comfort Zones (SEL)
	+ 15 minutes
	+ Materials:
		- Notebook/piece of paper
		- Writing tool
 | * Lesson 1a: Soil
	+ 20 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- [Video with Soil Scientist](https://youtu.be/plz6dC05SXo)
		- Paper plate/paper towel
		- Notebook/piece of paper
		- Writing tool
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| Week Two | * Lesson 1b: Soil
	+ 30 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide Deck
		- [Soil Art Painting Video](https://youtu.be/URLyp-CEgfw)
		- Soil paint palettes
		- Paint brushes
		- Water color paper strips
		- Paper towels
		- Cups with water
 | * Lesson 1c: Soil (optional)
	+ 30 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide Deck
		- Previous artwork
		- Notebook/piece of paper
		- Writing tool
		- Green screen
		- iPads
 |
| Week Three | * Lesson 1c: Soil (optional)
	+ 30 minutes
	+ Finalize and record/present
	+ Materials:
		- Teacher Lesson Plan
		- Slide Deck
		- Previous artwork
		- Notebook/piece of paper
		- Writing tool
		- Green screen
		- iPads
 | Lesson catch-up/review time |
| Week Four | * Lesson 2a: Weathering
	+ 25 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Plastic cup (either 1 as class, or each student to do activity at home)
		- Water
		- Something to mark the cup with (marker, piece of tape, or rubber band)
		- [Video of investigation setup](https://youtu.be/OQAzPnNTmCA)
 | * Lesson 2b: Weathering
	+ 20 min plus 10 min activity
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Investigation Review worksheet / google form
		- [Video reviewing Part A investigation](https://youtu.be/7bRd5uF2xO0)
		- Sorting Activity worksheet (don’t need if doing activity in slide deck)
		- Sorting Activity Answer Key
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| Week Five | * Lesson 3a: Erosion and Deposition
	+ 25 Minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Review worksheet / google form
		- [Glacier erosion video clip](https://youtu.be/BT430Knf-G4)
 | * Lesson 3b: Erosion and Deposition
	+ 25 minutes plus 10 minutes for activity
	+ Materials:
		- Teacher lesson plan
		- Slide deck
		- [Video clip of deposition](https://youtu.be/7da1eMuBSJ4)
		- [Video of investigation](https://youtu.be/QsiuY0BOFaM)
		- Either 1 for class or each student:
			* Clear container with lid (could ask students to find at home)
			* Soil from school or backyard
			* Water
			* Activity worksheet / google form
 |
| Week Six | * Lesson 4a: The Gold Rush and Our Watersheds
	+ 25 minutes
 | * Lesson 4b: The Gold Rush and Our Watersheds
	+ 25 minutes
 |
| Week Seven | * Lesson 4b: Gold Rush Activity
	+ 40 minutes
 | Lesson catch-up/review time |
| Week Eight | * Lesson 5a: Local Ecosystems
	+ 25 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide Deck
		- Activity answer key (activity is in slide deck)
		- 5a Review worksheet / google form
 | * Lesson 5b: Local Ecosystems
	+ 20 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide Deck
		- 5b Review worksheet / google form
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| Week Nine | * Lesson 6a: Local Food Webs
	+ 20 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- 6a Review worksheet / google form
 | * Lesson 6b: Local Food Webs
	+ 25 minutes for slide deck only - NOT activity - either do food web activity next time in class, or assign as homework.
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Organism worksheet to cut out to make food web
		- Food Web Answer Key
		- Food Web Answer Example - kids answers may look different
 |
| Week Ten | * Lesson 6b: Local Food Webs ACTIVITY
	+ 20 minutes for food web activity
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Organism worksheet to cut out to make food web
		- Food Web Answer Key
		- Food Web Answer Example - kids answers may look different
 | Lesson 7a: Plant Adaptations* + 30 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Review worksheet 7A
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| Week Eleven | Lesson 7b: Plant Adaptations* + 30 minutes
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
* Seaweed packets for each group
* Paper plate/bag
* Popcorn
* Review worksheet 7B
 | Lesson 8: Animal Communication & Senses* + 30 minutes
	+ 15 minute activity
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
* Review worksheet 8
* [Bird beak matching activity handout](https://creeklands-my.sharepoint.com/personal/christiana_creeklands_org/_layouts/15/doc.aspx?sourcedoc={9f4c51be-26eb-4e51-bfbb-d49a0bef12cd}&action=edit)
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| Weeks Twelve-Fourteen | Field Trips- Avila Beach Estuary(Lesson catch-up time/adjustments) | Field Trips- Avila Beach Estuary(Lesson catch-up time/adjustments) |
| Week Fifteen | Lesson 9: Coastal Marine Ecosystems* + 25 minute presentation
	+ Materials:
		- Teacher Lesson Plan
		- Slide deck
		- Review worksheet 9
 | Lesson 9: Coastal Marine Ecosystems* + 20 minute activity
	+ Materials:
		- Materials for hands-on activity including chalk & group flashcards.
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