

## Earth's Changing Surface

### Lesson 1a: Earth's Surface

<b>Grade 2</b>	<b>Length of lesson:</b> 40 minutes	<b>Placement of lesson in unit:</b> 1a of 6 two-part lessons on Earth's changing surface
<b>Unit central questions:</b> What does the surface of Earth look like? Does it ever change?		<b>Lesson focus question:</b> What does the surface of Earth look like?
<b>Main learning goal:</b> Earth's surface has many different types of landforms.		
<b>Science content storyline:</b> The surface of Earth has many natural features called <i>landforms</i> . Landforms are different from the things people build on top of the land, such as houses, schools, buildings, and roads. They're also different from things that grow on the land, such as trees and plants. Landforms are made out of the land and include mountains, hills, plateaus, valleys, plains, and canyons. Bodies of water, such as lakes and rivers, are also landforms because they're natural features of Earth's surface.		
<b>Ideal student response to the focus question:</b> There are many different landforms on Earth's surface. Mountains, hills, valleys, canyons, plateaus, and plains are all landforms. Bodies of water, like lakes, ponds, streams, and rivers, are landforms too. Things that people build, like roads and houses, aren't landforms. Things that grow on the land, like trees and grass, aren't landforms either.		

#### Preparation

<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>• Science notebooks</li> <li>• Chart paper and markers</li> <li>• Globe</li> <li>• Crayons or colored pencils (for sketching landforms)</li> <li>• <b>ELL support:</b> Collect books about Earth's changing surface that show different landforms. Use these books as additional resources throughout the unit.</li> <li>• Landform Picture Cards PowerPoint slides (for display as needed)</li> </ul> <p><b>Student Handouts</b></p> <ul style="list-style-type: none"> <li>• 1.1 Landform Picture Cards (1 laminated set per group; 1 laminated set for word wall)</li> </ul>	<p><b>Ahead of Time</b></p> <ul style="list-style-type: none"> <li>• Read the Earth's Changing Surface Content Background Document.</li> <li>• Laminate a set of landform picture cards (handout 1.1) and post them on a word wall for display throughout the unit.</li> <li>• <b>ELL support:</b> This is a language-rich lesson. Identify all Tier 2 and Tier 3 words (less common and discipline specific), including different types of landforms and the words <i>landforms</i>, <i>surface</i>, and <i>natural</i>. Review the landform picture cards with ELL students in advance and connect each landform to their personal experiences or stories/movies that are familiar to them.</li> <li>• <b>Alternative focus question:</b> In this lesson, the word <i>surface</i> is used in both the focus question and the unit central questions. Since many students may be unfamiliar with this term, it will be introduced at the beginning of this lesson. However, if you prefer, you can use an alternative focus question, such as <i>What does the land on Earth look like?</i></li> </ul>
---	---

## Lesson 1a General Outline

Time	Phase of Lesson	How the Science Content Storyline Develops
5 min	<b>Introduction and unit central questions:</b> The teacher introduces the unit central questions, <i>What does the surface of Earth look like? Does it ever change?</i> Then the teacher discusses surfaces on students' bodies and links them to ideas about Earth's surface.	<ul style="list-style-type: none"> <li>The surface of Earth is its outer layer. There are many ways to describe Earth's surface.</li> </ul>
5 min	<b>Lesson focus question:</b> The teacher introduces the focus question, <i>What does the surface of Earth look like?</i> and engages students in describing different natural and human-made features on Earth's surface.	<ul style="list-style-type: none"> <li>The surface of Earth has many features called <i>landforms</i>. Natural landforms are different from the things people build on top of the land, such as houses, schools, buildings, and roads. They're also different from things that grow on the land, such as trees and plants.</li> </ul>
8 min	<b>Setup for activity:</b> The teacher introduces the word <i>landform</i> and asks students to explain what it means. Students look at pictures and try to distinguish natural landforms from things people build on top of the land (buildings and roads) and things that grow on the land (trees and plants).	<ul style="list-style-type: none"> <li>The surface of Earth has many features called <i>landforms</i>. Natural landforms are different from the things people build on top of the land, such as houses, schools, buildings, and roads. They're also different from that grow on the land, such as trees and plants.</li> </ul>
8 min	<b>Activity:</b> In small groups, students examine pictures of landforms, describe each landform's shape, and discuss how they would build models of landforms out of sand. Then the teacher engages students in a class discussion.	<ul style="list-style-type: none"> <li>Landforms include mountains, hills, plateaus, valleys, plains, and canyons. Bodies of water, such as lakes and rivers, are also landforms. Some landforms rise high above Earth's surface, some cut deep into the surface, and some have water in them.</li> <li>Sand can be used to create models of different landforms.</li> </ul>
8 min	<b>Follow-up to activity:</b> Students think about and draw pictures of different landforms they've seen in their community.	<ul style="list-style-type: none"> <li>Landforms include mountains, hills, plateaus, valleys, plains, and canyons. Bodies of water, such as lakes and rivers, are also landforms.</li> </ul>
5 min	<b>Synthesize/summarize today's lesson:</b> The teacher engages students in summarizing key science ideas from the lesson.	<ul style="list-style-type: none"> <li>Earth's surface has many types of landforms. Some rise high above Earth's surface, some cut deep into the surface, and some have water in them.</li> </ul>
1 min	<b>Link to next lesson:</b> The teacher links different ways of describing landforms to the next lesson.	

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
5 min	<p><b>Introduction and Unit Central Questions</b></p> <p><b>Synopsis:</b> The teacher introduces the unit central questions, <i>What does Earth’s surface look like? Does it ever change?</i> Then the teacher discusses surfaces on students’ bodies and links them to ideas about Earth’s surface.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>The surface of Earth is its outer layer. There are many ways to describe Earth’s surface.</li> </ul>	Ask questions to elicit student ideas and predictions.	<p><b>Show slides 1 and 2.</b></p> <p>Today we’ll begin a new unit on Earth’s changing surface and think about two central questions: <i>What does the surface of Earth look like? Does it ever change?</i></p> <p>Write these questions in your science notebooks and draw a double-lined box around them.</p> <p><b>NOTE TO TEACHER:</b> <i>Write these questions on the board for students to refer to throughout the unit.</i></p> <p><b>Show slide 3.</b></p> <p>First, let’s talk about what a surface is.</p> <p><b>NOTE TO TEACHER:</b> <i>First, discuss various surfaces on students’ bodies (hands, heads). Rub the surface of your hand and have students rub the outside surface of their heads.</i></p> <p>Who can show me the surface of your hand?</p> <p>What about the surface of your head?</p> <p>How is the surface of your head different from the inside of your head?</p>	Inside is your brain,	

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p><b>Show slide 4.</b></p> <p>What do you think Earth’s surface is?</p> <p><b>NOTE TO TEACHER:</b> <i>Record student ideas on chart paper during this discussion. Have a globe available so that students can point to areas on the globe they’re referring to. Point to places on the globe that students don’t refer to, especially bodies of water. Ask students, “Is this part of Earth’s surface? What about this part? And here?”</i></p> <p><b>Show slide 5.</b></p> <p>Look at the picture of Earth on this slide. Where do you think Earth’s surface is?</p> <p><b>Turn and Talk:</b> Share your ideas with an elbow partner.</p>	<p>but outside is your hair.</p> <p>The surface!</p> <p>Like maybe the top of Earth?</p> <p>Like the surface of the oceans. The top part.</p> <p>Yeah, like the outer part of it.</p> <p>Yes! Because it’s on the outer part of Earth’s surface.</p>	<p>What’s another word for the outside of your head?</p> <p>What do you mean by “the top of Earth”? Come show me on the globe.</p> <p>Is the land part of the surface?</p> <p>Do you think a lake is part of the surface? Why or why not?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p><b>Whole-class share-out:</b> So where is the surface of Earth in this picture? Come up and point it out on the slide.</p> <p>Is anything in this picture <i>not</i> part of Earth’s surface?</p> <p>OK, so we think Earth’s surface is the outside part of Earth, not the air above Earth or the stuff inside Earth. It’s the part we can see—the land and the water.</p> <p>If you went outside right now, do you think you could touch the surface of Earth?</p> <p>Next, I’m going to show you some pictures of Earth’s surface. Look carefully at each picture and think about how you would describe the surface.</p> <p><b>NOTE TO TEACHER:</b> <i>The first slide shows landforms and a body of water, and the second shows landforms, things people have built, such as buildings and roads, and things growing on Earth’s surface, such as</i></p>	<p>Yes! The stuff on the inside of Earth isn’t part of the surface.</p> <p>The stuff that’s purple, yellow, and orange.</p> <p>Yes! We could touch ground.</p>	<p>Which stuff are you talking about?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p><i>trees and grass. During the following discussion, help students identify objects that are part of Earth’s surface that may be difficult to spot, such as the body of water in the bottom photo on slide 6 or the grassy hill in the bottom left-hand photo on slide 7. It’s OK if students include in their descriptions human-made features and living things that grow on Earth’s surface. Later in the lesson, they’ll learn to distinguish natural landforms from other surface features.</i></p> <p><b>Show slide 6.</b></p> <p><b>Whole-class discussion:</b> How would you describe the surface of Earth in each of these photos? Be sure to use the words <i>Earth’s surface</i> in your description.</p> <p><b>ELL support:</b> During this discussion, encourage ELL students to make connections to their own lives. Have them talk about times they may have experienced one of the landforms firsthand. Allowing ELL students to draw on their experiences gives them concrete resources to draw from and reduces the cognitive load of trying to find the right words in English to express science ideas they already understand.</p>	<p>There are mountains.</p> <p>Earth’s surface has mountains.</p> <p>Earth’s surface is flat.</p> <p>Earth’s surface has trees and grass.</p>	<p>Please use the words <i>Earth’s surface</i> in your description.</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p><b>Show slide 7.</b></p> <p>How would you describe Earth’s surface in these photos?</p>	<p>Earth’s surface has ponds or rivers and streams.</p> <p>There are buildings and roads.</p> <p>There are grass and trees on Earth’s surface.</p> <p>Earth’s surface has hills along the side of the highway.</p>	<p>Please use the words <i>Earth’s surface</i> in your description.</p>
5 min	<p><b>Lesson Focus Question</b></p> <p><b>Synopsis:</b> The teacher introduces the focus question, <i>What does the surface of Earth look like?</i> and engages students in describing different natural and human-made features on Earth’s surface.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>• The surface of Earth</li> </ul>	<p>Summarize key science ideas.</p> <p>Ask questions to elicit</p>	<p>There are many ways to describe Earth’s surface, aren’t there?</p> <p>The surface of Earth is made up of all of the land and all of the water on the land.</p> <p>When we look around Pomona, we can see things people have made, like buildings, roads, and bridges. We can also see the natural land. By <i>natural</i>, I mean things that people haven’t made.</p> <p>What are some things you might see on Earth’s surface that people have made?</p>		

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
	<p>has many features called <i>landforms</i>. Natural landforms are different from the things people build on top of the land, such as houses, schools, buildings, and roads. They're also different from things that grow on the land, such as trees and plants.</p>	<p>student ideas and predictions.</p> <p>Set the purpose with a <u>focus question</u> or goal statement.</p>	<p>Think about things you see on the way to school.</p> <p>These things are <i>not</i> natural because people made them.</p> <p><b>Show slide 8.</b></p> <p>Today we'll focus on the <i>natural</i> land that buildings and roads are built on, and we'll think about the focus question, <i>What does the surface of Earth look like?</i></p> <p>Write this question in your science notebooks and draw a box around it.</p> <p><b>NOTE TO TEACHER:</b> <i>Write the focus question on the board for students to refer to throughout the lesson.</i></p> <p>How would you describe what the surface of Earth looks like in our area?</p> <p><b>ELL support:</b> Encourage ELL students to listen to one another's ideas and respond to each other. This will help them build understanding as a group and will give them more confidence to participate in the</p>	<p><i>Possible answers:</i></p> <ul style="list-style-type: none"> <li>• Houses.</li> <li>• Playgrounds.</li> <li>• Cars.</li> <li>• Roads.</li> <li>• Parking lots.</li> <li>• Schools.</li> </ul> <p>There are mountains here.</p> <p>There are lots of roads and houses.</p>	<p>Are roads and houses the natural surface of Earth or</p>



Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
		Ask questions to probe student ideas and predictions.	<p>class discussion.</p> <p><b>NOTE TO TEACHER:</b> <i>Students will likely describe natural features, such as trees or mountains, but they may also include human-made features. Ask probe questions to find out more about students' thinking and how they view human-made features as part of the natural land. Students will learn to distinguish between natural and human-made surface features when the word landforms is introduced. For now, get students thinking about the differences between the natural features that comprise Earth's surface, features that grow on Earth's surface (trees and plants), and features people build on Earth's surface.</i></p>	<p>People made them.</p> <p>The land is pretty flat around here.</p>	<p>did people make them?</p> <p>How would you describe the land where the roads and houses have been built? Is it flat or hilly?</p>
8 min	<p><b>Setup for Activity</b></p> <p><b>Synopsis:</b> The teacher introduces the word <i>landform</i> and asks students to explain what it means. Students look at pictures and try to distinguish natural landforms from things people build on top of the land (buildings and roads) and things that grow on the land (trees</p>	<p>Make explicit links between science ideas and activities <b>before</b> the activity.</p> <p>Ask questions to elicit student ideas and predictions.</p>	<p>Before we begin today's activity, let's talk more about the differences between Earth's natural surface and things people have built on the surface.</p> <p><b>ELL support:</b> To help ELL students better understand the science concepts and vocabulary, it may be useful to have them create a dictionary of key terms with illustrations. For instance, they could develop a specific Earth's-surface dictionary. Alternatively, each student could create an illustrated definition display for a specific term.</p>		

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
	<p>and plants).</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>The surface of Earth has many features called <i>landforms</i>. Natural landforms are different from the things people build on top of the land, such as houses, schools, buildings, and roads. They're also different from things that grow on the land, such as trees and plants.</li> </ul>		<p><b>Show slide 9.</b></p> <p>Which of these pictures show the natural surface of Earth, and which show something people have built on the surface?</p> <p><b>NOTE TO TEACHER:</b> <i>During this discussion, have students indicate their decisions by responding either "Natural surface" or "Something people made." Students should observe that the only human-made object is the building. Make sure to clarify the differences between the natural surface (landscape) and human-made objects. Students might be confused about the land itself (landforms) and things that grow on the land, such as trees and plants. The purpose of this setup is to introduce the word landforms and emphasize that landforms are the shape of Earth's surface and are formed out of the land. They don't include the things people build or living things that grow on the land.</i></p> <p><b>Show slide 10.</b></p> <p>The pictures on this slide show different kinds of landforms.</p> <p><b>Individual think time:</b> What do you think the word <i>landform</i> means? Take some think time and see if you can come up with some</p>		

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
		Highlight key science ideas and focus	<p>ideas.</p> <p><b>NOTE TO TEACHER:</b> <i>Have students think about this question for 10 to 20 seconds. Then ask volunteers to share their ideas.</i></p> <p><b>Whole-class discussion:</b> So what do you think the word <i>landform</i> means? Let’s hear your ideas.</p> <p><b>NOTE TO TEACHER:</b> <i>Record student ideas on chart paper.</i></p> <p><b>Show slide 11.</b></p> <p>Scientists call the natural features of the land <i>landforms</i>. Mountains are a great example of a landform. A landform is</p>	<p>Things that are formed out of the land.</p> <p>Things like mountains are made out of dirt and rocks.</p> <p>I think landforms are just natural things, not things people make.</p> <p>Because the pictures don’t show any buildings.</p>	<p>What do you mean by “formed out of the land”?</p> <p>Who can add on to that idea?</p> <p>Why do you say that?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
		question throughout.	<p>something natural formed out of the land, not something people build. Landforms are the <i>shape</i> of Earth’s surface.</p> <p><b>NOTE TO TEACHER:</b> <i>When you refer to landforms as the shape of Earth’s surface, students might think you’re talking about geometric shapes, such as triangles, circles, and squares. Help students think about landform shapes as land rising high above the ground where they’re standing or cutting deep into the ground, or being flat, curvy, or steep. It’s important for them to think about the landform shapes now so they’ll be prepared for the sand-molding activity in the next lesson.</i></p> <p>What are some other examples of landforms or natural things that are formed from the land on Earth’s surface?</p>	<p>A hill.</p> <p>A tree.</p> <p>A tree grows out of the land.</p> <p>It’s growing on the land.</p>	<p>Why do you think a tree is a landform? Can you tell me more about that idea?</p> <p>So is a tree the land itself or something growing on the land?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p>This is a really important idea. Trees, grass, and flowers are all things that grow on the land. They need the land to live and grow, but they aren't the land itself, right? They aren't formed out of the land, so they aren't landforms.</p> <p>In today's activity, we'll learn more about landforms, or the different ways the land is shaped.</p> <p>Landforms include all of the ways the land rises high above Earth's surface and all of the ways it cuts deep into the surface.</p> <p>Mountains and hills are landforms, but Earth's surface has many other types of landforms as well. I've posted some pictures and words on our word wall to give you an idea of the kinds of landforms we'll learn about this week.</p> <p>Today you'll work in small groups to describe different landforms and think of ways you could build a model of each landform out of sand. Then in our next lesson, you'll get to use real sand to build some models!</p> <p><b>NOTE TO TEACHER:</b> <i>Divide the class into small groups; then give each group a set of landform picture cards (from handout</i></p>		

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			1.1).		
8 min	<p><b>Activity</b></p> <p><b>Synopsis:</b> In small groups, students examine pictures of landforms, describe each landform’s shape, and discuss how they would build models of landforms out of sand. Then the teacher engages students in a class discussion.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>Landforms include mountains, hills, plateaus, valleys, plains, and canyons. Bodies of water, such as lakes and rivers, are also landforms. Some landforms rise high above Earth’s surface, some cut deep into the surface, and some have water in them.</li> <li>Sand can be used to create models of different landforms.</li> </ul>	<p>Make explicit links between science ideas and activities <b>during</b> the activity.</p> <p>Select content representations and models matched to the learning goal and engage students in their use.</p>	<p>To become good landform builders, we need to think about the shapes of the landforms we’re going to build!</p> <p><b>Small groups:</b> In your small groups, I want you to pass around the landform pictures and look at them carefully. Then talk about the shape of each landform and how you might build a model of that landform out of sand.</p> <p><b>Show slide 12.</b></p> <p><b>Whole-class discussion:</b> What ideas do you have for building the landforms on your cards? Let’s begin with the mountain picture. How would you describe a mountain? What shape does it have?</p> <p><b>NOTE TO TEACHER:</b> <i>Record students’ descriptions on chart paper during this discussion. Remind students to refer to the landform pictures on the word wall or display the Landform Picture Cards PowerPoint slides as needed. Have students briefly describe each landform and demonstrate its shape using their hands. Then ask them to describe what they’d do to shape the landform out of sand. For example, they could make a U shape with</i></p>	<p>It’s rocky.</p> <p>It’s pointy.</p> <p>It comes to a point, like this. [Student forms hands into a point.]</p> <p>I think a mountain has steeper sides.</p>	<p>Can you say more about what you mean by “pointy?”</p> <p>Does anyone want to add on?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p><i>their hands for a valley and then describe how they would dig out this shape in the sand.</i></p> <p><b>ELL support:</b> It might be helpful to have students include descriptive adjectives in their key-terms dictionary or create visual reference cards to use in discussions.</p> <p>So a mountain has steep sides that rise up and come to a point. That’s very helpful to know as we think about how to build a model with sand!</p> <p>What about other landforms? Let’s look at the picture of the plateau. How would you describe a plateau?</p> <p>Now look at the canyon picture. How would you describe a canyon?</p>	<p>It’s like a mountain, but it doesn’t have a point.</p> <p>It’s flat. It goes up high like a mountain, but the top is flat like the point was cut off.</p> <p>It looks like a big cut in the land.</p>	<p>How would you describe the top of a plateau?</p> <p>OK, so a plateau has steep sides like a mountain, but it’s flat on top.</p> <p>How could you use your hands to show that?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<p>How could you make a letter <i>V</i> with sand? Can you describe what you'd do?</p> <p><b>NOTE TO TEACHER:</b> <i>Discuss the rest of the landform pictures one at a time. Have students describe each landform's shape and how they would shape it with sand.</i></p>	<p><i>[Student makes a V shape with both hands.]</i></p> <p>I'd dig deep into the sand and make a V shape.</p>	<p>Yes, a canyon does look like a letter <i>V</i>, doesn't it?</p>
8 min	<p><b>Follow-Up to Activity</b></p> <p><b>Synopsis:</b> Students think about and draw pictures of different landforms they've seen in their community.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>Landforms include mountains, hills, plateaus, valleys, plains, and canyons. Bodies of water, such as lakes and rivers, are also landforms.</li> </ul>	<p>Make explicit links between science ideas and activities <b>after</b> the activity.</p> <p>Select content representations and models</p>	<p><b>Show slide 13.</b></p> <p>Think about all of the wonderful landforms we've learned about today! Have you seen any of these landforms in our community here in Pomona?</p> <p><b>ELL support:</b> The word <i>community</i> might be confusing for ELL students, so make sure they understand what you're referring to. Also review the differences between landforms and living things that grow on the land, as well as objects people build on the land. Refer students to the pictures and descriptions on the word wall as needed.</p> <p>Open your science notebooks and sketch two of the landforms you've seen near your home or near our school. Use colored pencils or crayons to sketch your pictures</p>		



Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
		<p>matched to the learning goal and engage students in their use.</p> <p>Engage students in using and applying new science ideas in a variety of ways and contexts.</p>	<p>and make sure to label them.</p> <p><b>Students work on drawings.</b></p> <p><b>NOTE TO TEACHER:</b> <i>This activity builds on students' ideas about landforms by having them apply these ideas to their community and translate their thinking into visual images. At this point, students should be able to distinguish between natural landforms and things on the land (e.g., buildings, trees, flowers, roads).</i></p> <p><b>Whole-class share-out:</b> What landforms have you seen in our area? What did you draw?</p> <p><b>ELL support:</b> Allow ELL students to meet in small groups (shared-language groups, if possible) so they can practice sharing their drawings and ideas before the sharing with the entire class. To simplify, limit the discussion to talking about what students drew.</p>	<p>I drew mountains!</p> <p>Pomona has mountains, but it's flat, too.</p> <p>Plains.</p> <p>I drew some trees on the land.</p> <p>Trees grow out of the land, but they</p>	<p>What do we call flat areas on Earth's surface?</p> <p>Tell me why you think trees are landforms.</p> <p>Does anyone want to add on?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
				aren't landforms.	
5 min	<p><b>Synthesize/Summarize Today's Lesson</b></p> <p><b>Synopsis:</b> The teacher engages students in summarizing key science ideas from the lesson.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>• Earth's surface has many types of landforms. Some rise high above Earth's surface, some cut deep into the surface, and some have water in them.</li> </ul>	<p>Highlight key science ideas and focus questions throughout.</p> <p>Engage students in making connections by synthesizing and summarizing key science ideas.</p>	<p><b>Show slide 14.</b></p> <p>Let's revisit our focus question, <i>What does Earth's surface look like?</i></p> <p><b>Turn and Talk (2 min):</b> Talk through your ideas with an elbow partner and be ready to share them with the class. Think about your landform drawings and all of the pictures we looked at today.</p> <p><b>Whole-class share-out:</b> Let's hear your ideas. What does Earth's surface look like? What landforms and shapes does it have?</p>	<p>We think Earth's surface is bumpy and has all kinds of shapes.</p> <p>Well, the mountains and hills come out of the land and make bumps.</p> <p>A river is like a ditch in the land.</p>	<p>Why do you think Earth's surface is "bumpy"? Show me with your hands what bumpy looks like.</p> <p>Are there types of landforms that cut into the land rather than stick up?</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
		Summarize key science ideas.	<p><b>Show slide 15.</b></p> <p>So today we learned that Earth’s surface has many different shapes or features called <i>landforms</i>. Some landforms rise high above Earth’s surface, and others cut deep into the surface. We also learned that things that people make and things that grow on the land aren’t landforms.</p> <p>What are some examples of landforms that rise high above Earth’s surface? [<i>Use hand gestures to show something that’s high above the ground.</i>]</p> <p>What are some examples of landforms that are flat? [<i>Use hand gestures to show something that’s flat or level with the ground.</i>]</p> <p>What are some examples of landforms that cut into Earth’s surface? [<i>Use hand gestures to show something cutting into the ground.</i>]</p>	<ul style="list-style-type: none"> <li>• Mountains.</li> <li>• Hills.</li> <li>• Plateaus.</li>   <li>• Plains.</li> <li>• Lakes.</li> <li>• Rivers.</li> <li>• Deltas.</li>   <li>• Valleys.</li> <li>• Canyons.</li> <li>• Rivers.</li> </ul>	

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
1 min	<p><b>Link to Next Lesson</b></p> <p><b>Synopsis:</b> The teacher links different ways of describing landforms to the next lesson.</p>		<p><b>Show slide 16.</b></p> <p>In our next lesson, you'll use what you've learned about landforms to build models of different landforms out of sand.</p> <p>See if you can come up with some new ideas tonight for making all of these different landform shapes!</p>		