

LESSON PLAN

Grade(s)	2
Content Area(s)	Science/Social Studies
Topic of Lesson	Introduction to the Desert
Three Objectives	<ol style="list-style-type: none"> 1. Students will be able to describe a typical desert climate by correctly writing at least three characteristics of a desert climate that were explained in the lesson and write them on a piece of notebook paper. 2. Students will be able to write at least three out of four desert animals that were described in the lesson when shown images of the four animals on a blank piece of paper. They will be able to correctly write the names of at least three of the animals beneath their respective images. 3. Students will be able to correctly locate and label the three deserts covered in the lesson when given a map of Africa and Asia to label. The map will have country borders and dotted lines signifying the region of each desert.
Technology standard	<p><i>Standard 1. Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity.</i></p> <p>Basic Operations <i>K-2: 1.2 Explain that icons (e.g., recycle bin/trash, folder) are symbols used to signify a command, file, or application.</i></p>
Curriculum Framework	<ul style="list-style-type: none"> ➤ Massachusetts Science and Technology/Engineering Standards ➤ Life Science (Biology), Grades 3-5 ➤ Characteristics of Plants and Animals <p><i>1. Classify plants and animals according to the physical characteristics that they share.</i></p> <ul style="list-style-type: none"> ➤ History and Social Science Standards ➤ North American Geography with Optional Standards for one Early Civilization, Grade 4 ➤ Regions of the United States <p><i>4.9 On a map of North America, locate the current boundaries of the United States (including Alaska and Hawaii). Locate New England, Middle Atlantic, Atlantic Coast/ Appalachian, Southeast/Gulf, South Central, Great Lakes, Plains, Southwest Desert, and Pacific States, and the Commonwealth of Puerto Rico. See Appendix H for a listing of states in each region. (G)</i></p>

	<p>4.11 Describe the climate, major physical features, and major natural resources in each region. (G)</p>
<p>Materials needed</p>	<ul style="list-style-type: none"> • One easel in the front of the classroom for teacher to write students’ brainstorming on • One computer with internet access and LCD projector in the classroom • A computer lab with internet access and enough computers for each student (or personal computers/ipads that can be used in the classroom if school has enough resources, or pairs of students to each computer if school has fewer resources) • A writing utensil for each student (for the assessment) and the teacher (to write on the easel) • A blank sheet of paper to write three characteristics of a desert climate on • A sheet of paper with images of the four desert animals described in the lesson • A blank map of Africa and Asia for students to label
<p>Lesson Procedure, Web Site Use, and Technology Standard Instruction</p>	<p>The students will be seated on the rug in the front of the classroom in front of an easel (chalkboard, whiteboard, or interactive board would also work). I will begin by asking the students what they already know about deserts (What is the weather/climate like there? What kinds of plants and animals exist? Do you know where any deserts are located around the world?). They will raise their hands to volunteer answers and I will write their ideas down on the easel. After the class has come up with several things they <i>know</i> about deserts, I will create another page/section/list on the easel and ask students what they <i>want</i> to know about deserts. Again, students will raise their hands and volunteer facts that they would like to learn about the desert. I will also write these on the easel where they are visible to the class.</p> <p>Next I will go to the computer and pull up the website and have it projected on the interactive board at the front of the classroom. I will explain to the students that we are going to be using the website I created to help them learn more about deserts. I will explain that we will be introduced to it as a class, then students will be given time to explore the website on their own. I will introduce the website by starting on the home page and showing the students how to use the navigation bars and the menu at the top of the page.</p> <p>I will then take a moment to explain the use of icons on the website. I will first ask students if they know what icons are, and if so, ask them to give examples of some icons they have seen before. Then on the home page, I will explain to students what the different icons at the top of the page mean (e.g. home, desert plants, desert animals, quiz, etc.). I will also explain to students that the arrows (icons) at the bottom of the page, will take the user either to the following page, or back to the previous page. After this explanation and demonstration, I will ask for a few volunteers from the</p>

class to put the information in their own words and describe to their classmates what icons are and do.

After explaining the navigation and icons on my website, I will leave the home page. I will begin by opening the content page on the climate of deserts. I will ask if anyone in the class has ever visited a desert—if so, what was its climate like? I will then ask students to volunteer to read the information on that page, and call on students—allowing each volunteer to read a sentence or two. Together we will look at the pictures and I will ask students to make observations about what they notice, and if it is similar or different to what they thought they already knew about desert climate. Next, I will ask if there are any questions about climate.

I will then go to the next menu (after climate) in the navigation bar: desert plants. I will scroll down under this menu and choose (with help from the students based on raised hands) one of the plants that are listed. I will open that page, and again, I will ask students to volunteer to help read the information written on the page. We will explore the media on the page (voki, video, images—depending on which plant page it is) and I will explain to students how to watch a video (by clicking the “play” icon) and use other media throughout the website. Students again will note observations they make about the particular plant. I will ask them questions about how they think the plant is affected by the climate, and how they think climate and this plant are related. After thoroughly reading the page, I will ask students if they have any questions about what they have just learned.

I will then return to the home page of the website, explaining to students how I get there, and showing them multiple ways to do this (so as to reiterate the navigation of the website). I will then check in and make sure that the class understands the navigation and the set-up of the website. I will then tell students that we are going to quickly and quietly transition to the computer lab. I will ask students to be quiet in the hallway, and find a seat quickly and without speaking once we have entered the lab.

[TRANSITION TO COMPUTER LAB]

After the students have been settled I will explain to students that their task is to explore the website on their own, going from page to page (in order of the menus—or the arrows at the bottom of each page). I will remind them that there is a quiz on the website that can be taken after they have looked at all of the pages, but make it clear that it is most important for them to read each page thoroughly, rather than race through to get to the quiz. I will also explain that they can submit answers more than once if they select the wrong choice. Students will then be set free to explore the website, and I (and any other adults in the room) will stroll around, checking in with students and assisting them when they are in need of help.

	<p>I will give the class a five minute warning, but after about twenty to thirty minutes of free exploration time, I will call the class back to attention. They will close out of the website on their computers, put the computers to sleep, and line up quietly at the door. We will then head back to the classroom where we will assemble again on the rug by the easel.</p> <p>(This wrap-up could also take place in the computer lab if transition time is an issue). After returning to the classroom and re-assembling on the rug, I will remind students of their brainstorming from earlier. I will briefly review the things they said they already knew about deserts, and the things they wanted to know. Then I will ask them what they have <i>learned</i>. I will ask them if anything they thought they knew before had changed, or if some of their questions have been answered. Students will volunteer by raising their hands and I will call on them one at a time, listing their ideas on the easel (on a new page, or within a new section).</p>
<p>How will students be assessed to make sure they are able to perform the objectives?</p>	<p><i>What is your assessment plan for this lesson?</i></p> <p><i>Paste your three objectives from “Lesson Basics” in this box. After each one, explain how your lesson and assessment plan will make sure that the learning outcome is reached.</i></p> <p>Objective 1: Students will be able to describe a typical desert climate by correctly naming at least three characteristics of a desert climate that were explained in the lesson and write them on a piece of notebook paper. Assessment 1: After a couple of days of reviewing the material, students will each be given a piece of blank paper and will be asked to write down three characteristics of a desert climate that they remember from the lesson. They will have ten minutes to complete this. I will walk around and check to make sure all students have this written down, then I will ask them to turn to the person next to them (groups of three as necessary) and discuss their responses for five minutes. I will then ask for volunteers to share one of the characteristics their group has come up with.</p> <p>Objective 2: Students will be able to identify at least three out of four desert animals that were described in the lesson when shown images of the four animals on a blank piece of paper. They will be able to correctly write the names of at least three of the animals beneath their respective images. Assessment 2: The class will review the desert animals they learned about over the course of the next couple of days. At the end of the week (within a couple of days of the original lesson), students will be given a sheet of paper with images of all four desert animals, each with a blank line/space beneath it. Students will then be asked to fill in at least three of these blank spaces with the animal’s name whose image is above the line. After students have completed this task, I will collect the assessments, but again I will review the animals on the website.</p> <p>Objective 3: Students will be able to correctly locate the three deserts</p>

when given a blank map of Africa and Asia to label.

Assessment 3: After having had time in class to explore the website individually, I will review the three major deserts with the class as a whole. This material will be reviewed briefly (with or without use of the website) in class each day for three days. At the end of the week students will be given a blank map of Africa and Asia and five to ten minutes to fill out the three deserts described on the website.