



NAME: _____

DATE: _____

“You Can Die Here” – Death Valley California
Instructions for Google Earth Tour option for Intro & Learning Activity One

Media Component

rainshadow.kmz

Prep For Teachers

Make sure that Google Earth is installed and running properly on your classroom computer. If not, download and install the free version at <http://earth.google.com> or get your technology support team to do it for you.

Download and save the Google Earth tour *rainshadow.kmz* to accompany this classroom exercise. When you double click it the file will automatically launch Google Earth and open as “Rainshadow Desert Tour” in Temporary Places at the bottom of the Places sidebar. Once the file is in Google Earth, right click it and select “Save to My Places”. It will now be saved in My Places in the Places sidebar.

It is important that you are familiar with the controls and behavior of Google Earth before using it in front of the classroom. Expand the Rainshadow tour folder and practice turning on and off and double clicking on and displaying the place marks and overlays in the “Rain Shadow Desert” tour.

Open Google Earth with the Rainshadow Desert Tour folder open and expanded in the Places sidebar. Turn on each of the place marks in the tour by toggling on the checkmark in the boxes next to the place mark in the sidebar.

Introductory Activity

1) Introduce students to Death Valley by explaining that it is located to the east of the high peaks of the Sierra Nevada Mountains of central California. Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to share what they already know about Death Valley and how the characteristics of the landscape affect the climatic conditions of the area. Double click on the Google Earth place labeled “The Rainshadow Desert Tour.” Double click on the area east of the Sierras in order to zoom in and view the surrounding landscape. Be sure to explain that it is 282 feet below sea level--the lowest, hottest, and driest place in the United States.

2) Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to describe the climate, weather conditions, and landscape portrayed in the clip. Play Clip 1, “You Can Die Here.” Lead students in a discussion of the climate, weather conditions and landscape (Possible answers: This is the hottest and driest place in the western hemisphere; there are large salt flats, vast deserts, and deep craters.)



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Learning Activity One

1) Double click on the Google Earth place labeled “The Rainshadow Desert Tour.” Point out the central valley of California, the Sierra Nevada Mountain. range, and the Basin and Range region in nearby Nevada. Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to describe the landscape conditions of each area as seen on the Google Earth tour. Be sure to point out the differences between the landscape on either side of the mountain (see teacher key for answers).

2) Double click on the Google Earth place labeled “What human activity is going on here?” Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to a) describe the type of human activity going on here, and b) describe the surrounding landscape. (Section 1 on the “Precipitation Student Organizer.”) Lead a discussion with the students about their answers and ask them to share how they reached their conclusions (see teacher key for answers).

3) Double click on the Google Earth place labeled “The Windward Side of the Sierra Nevada.” Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to describe the vegetation covering these mountains. What does the presence of this vegetation suggest about the amount of rainfall here? (Section 2 on the “Precipitation Student Organizer.”) Lead a discussion with the students about their answers (see teacher key for answers).

4) Double click on the Google Earth place labeled “The Leeward Side of the Sierra Nevada.” Provide students with a FOCUS FOR MEDIA INTERACTION by asking them how the vegetation here compares to the vegetation at the foothills of the Sierras? What does the landscape suggest about the rainfall (Section 3 on the Precipitation Student Organizer)? Lead a discussion with the students about their answers (see teacher key for answers).

5) Be sure the checkbox next to Central California Precipitation is checked. The precipitation map should appear as an overlay on the satellite image map. Distribute copies of each of the maps to the students. Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to compare the areas of high and low precipitation with the areas of high and low elevation and fill in Section 4 on the Precipitation Student Organizer. Lead a discussion with the students about their answers. Be sure to point out the increase in precipitation that corresponds to an increase in altitude.

6) Project the planetary winds diagram on page 14 of the ERST: <http://emsc32.nysed.gov/osa/reftable/esp10-16.pdf>. Tell students that the contiguous United States is located between 30 and 45 degrees north latitude. Provide students with a FOCUS FOR MEDIA INTERACTION by asking them to determine which way the wind moves at that latitude and to write their answers in Section 5 of the Precipitation Student Organizer. Lead students in a discussion about their answers (see teacher key for answers).

(Continue lesson using Learning Activity Two in the “You Can Die Here” lesson.)