



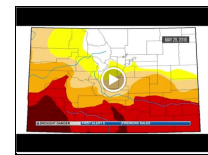
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## Colorado Drought - Student Worksheet

### Part 1: Drought, wildfire, and weather: What's the connection in Colorado?

- What's the connection between drought, wildfire, and weather? Write at least three things in the What I Know section of the KWL Chart below.
- Watch the [drought news clip](#) (2:43) and [Assessing Drought in the United States](#).
- Write down your observations and questions about drought as a natural hazard in the "What I Wonder" section of the KWL Chart.



<b>KWL Chart</b>	
<b>What I Know</b>	
<b>What I Wonder</b>	
<b>What I Learned (Activity 3)</b>	



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## Part 2: Drought Data Analysis Stations

### Jigsaw Station 1: Drought Causes and Impacts

Use the [Drought in America: Slow moving, far reaching](#) website to build your knowledge about drought. Next, watch the video [To Escape Drought, Slow and Steady Wins the Race](#).



1. What is drought?
2. What causes drought?
3. What are some impacts of drought?
4. What type of precipitation is needed to “break” a drought?



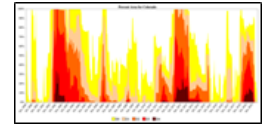


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**Jigsaw Station 2: Drought History in Colorado**

Review the graph of [Drought History in Colorado](#) (scroll down the webpage and click the “Percent Area for Colorado” graph).

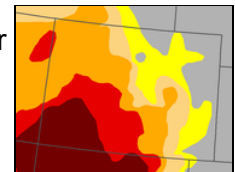


5. What does the graph show?

6. In which years did all of Colorado (100% of Colorado) experience a drought?

7. In which years did Colorado experience exceptional drought (D4)?

8. Look at the Data Snapshot of the Drought Map of Colorado on December 4th, 2018. Estimate the percentage of Colorado that looks like it is in exceptional drought.



9. Now, look back to the graph of Drought in Colorado. Based on the graph, what percentage of Colorado was in exceptional drought (D4) in late 2018? Was your estimate accurate?



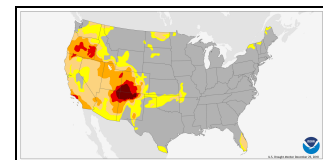
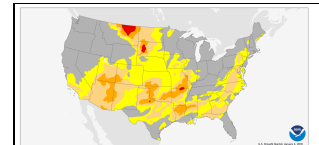
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### Station 3: 2018 American Southwest Drought

The American Southwest is defined as New Mexico, Colorado, Utah, Nevada, Southern California, and Arizona. View the [animation of the 2018 U.S. Southwest Drought](#).

10. What patterns do you observe when you watch the animation?



11. What were the drought categories throughout Colorado at the start of 2018? Which areas of the state had the greatest drought level, and which areas had the lowest? *Note: the dates for each map are in the bottom left corner of the animation.*

12. What were the drought categories throughout Colorado at the end of 2018? Which areas of the state had the greatest drought level, and which areas had the lowest?

13. What were some of the major impacts of the 2018 drought in the Southwest?

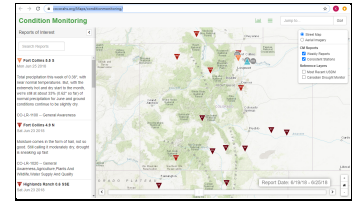


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**Station 4: Observations of the 2018 Drought in Colorado**

Visit the [CoCoRaHS Condition Monitoring Map](#), a resource you can use to explore past drought conditions and read on-the-ground reports made each week by CoCoRaHS volunteer citizen scientist observers.



In the lower right, use the “+” symbol to zoom in on the map, the “-” symbol to zoom out, and the home icon to return to the default map view screen. Use the timescale slider at the bottom of the screen to change the date of the maps that you are viewing. Read volunteer observations by clicking on the upside down triangles.

Zoom into Colorado and use the timescale slider to view maps from June, July, and August 2018.

- 14. Read at least 4 observations for each month. What are observers reporting? Give a brief summary that includes details of the impacts they see, the date, drought condition, and general location of the observer (e.g., June 2018, Moderately Dry, SE Colorado).

June:

July:

August:



**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Station 5: Current Drought Conditions in Colorado**

Use the [Drought.gov Current Conditions](https://drought.gov/current-conditions) web portal to find out the current drought conditions in your community and in Colorado.

Scroll to the bottom of the page to enter your zip code into the box that says “Explore More Locations” and click the yellow “Get Conditions” box.

Explore More Locations	
<b>Get local conditions</b>	<b>Or jump to:</b>
<input type="text" value="Enter your zip code"/>	State <input type="text"/>
<b>Get Conditions</b>	Region <input type="text"/>

15. What is the current drought condition in your community? What is the precipitation total and average high temperature for the last 7 days?

Now, click on the yellow box that says “Go To Colorado State Page.” A map of Colorado should appear, with an explanation of what percentage of the state is in each drought category.

16. What percentage of the state is Abnormally Dry? What percentage of the state is in Severe Drought? What percentage of the state is in Exceptional Drought?

17. Based on the time of year, and the recent weather in your community, are you surprised about the current drought conditions in Colorado? Why or why not?





**Name:** \_\_\_\_\_

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**Part 3 : How can communities know about and manage their drought risk in Colorado?**

**Local Drought News Story**

**Prompt:** Create a local news story in a format of your choice (see options below), that summarizes important information for people in your community to prepare for and understand wildfire risk.

Choose from the following format choices for the local wildfire news story:

- Newspaper article with one picture and one graph or map (one page)
- Radio story (2-3 minutes in length)
- Video newscast (2-3 minutes in length)

Use the outline below to collect information from the jigsaw activity to include in your news story.

<p><b>Station 1: Drought Causes and Impacts</b></p>	<p><u>Drought Definition:</u></p>          <p><u>Causes of Drought:</u></p>          <p><u>Impacts of Drought:</u></p>          
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Name:

Date:

<b>Station 2: Drought History in Colorado</b>	<u>Recent Significant Droughts (in which 100% of Colorado experienced drought and/or some of Colorado experienced exceptional drought)</u>
<b>Station 3: 2018 American Southwest Drought</b>	<u>National Drought Pattern of 2018</u>  <u>Major Impacts of 2018 Drought</u>



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<p><b>Station 4: Observations of the 2018 Drought in Colorado</b></p>	<p><u>June 2018 Observations Summary:</u></p>   <p><u>July 2018 Observations Summary:</u></p>   <p><u>August 2018 Observations Summary:</u></p>
<p><b>Station 5: Current Drought Conditions in Colorado</b></p>	<p><u>Local Drought Conditions:</u></p>   <p><u>Statewide Drought Conditions:</u></p>



**Name:**

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<p><b>Station 6: Drought Preparation and Response</b></p>	<p><u>Current Drought Outlook for Colorado</u></p>          <p><u>Ways to Conserve Water During a Drought</u></p>          <p><u>Fire Prevention Actions</u></p>
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