

Utah Compose Science/Cross-Curricular Prompts

Content Area	Prompt	Grade Level	Genre
Science	<p>Look at the pictures of the Earth and the moon. What differences can you see? Write an essay in which you describe the differences between the Earth and the moon. Use the pictures to explain why there is life on Earth but not on the moon.</p> <p>Photo: The Moon Photo: The Earth</p>	3	Informative/Explanatory
Science	<p>Read about roller coasters and watch the video. Roller coasters use energy, but not from an engine. In a paper you write for your classmates, explain how this can be. Use information from the reading and the video and from your knowledge of gravity and energy.</p> <p>PDF - Reading: How Roller Coasters Work Video: How Roller Coasters Work</p>	3	Informative/Explanatory
Science	<p>Many technology companies have designed robots to help people. What kind of robot would you like to see developed? What would it do? Write an essay describing a new kind of robot and how it would benefit people.</p>	3	Informative/Explanatory
Science	<p>A large box is delivered to your classroom. It has holes in the top and has a sticker that reads, "Live Animals." Your teacher sets the box on a table. Suddenly the box begins to shake and the top flies off! Write a well-developed story about what comes out of the box and what happens next.</p>	3	Narrative Informative/Explanatory
Science	<p>There have been many wonderful inventions throughout history. Which, in your opinion, is the most important? Describe the invention and explain why it is the most important one in your opinion.</p>	4	Opinion/Argumentative
Science	<p>In your own words, tell about how camels can live so well in the desert. Use information from the reading, video, and pictures in your essay.</p> <p>PDF - Reading: Camels - Ships of the Desert Video: Amazing facts About Camels Webpage: Animal Adaptations and Survival - Camels Photos: Camels Webpage: All About Camels</p>	4	Informative/Explanatory
Science	<p>Write an essay explaining how clouds can help us to predict weather. Read the article and view the video before you begin your graphic organizer. Be sure to use science words and other information from the article and the video.</p> <p>Article: What Do Clouds Tell Us About Weather? Video: Objects in the Sky - The Types of Clouds</p>	4	Informative/Explanatory
Science	<p>Suppose your class visited a local zoo. Describe the animals you see there, using details and examples to make your essay interesting.</p>	4	Informative/Explanatory
Science	<p>Think about a time when you experienced a thunderstorm, or snowstorm or when it was very hot or cold, or maybe when you saw a rainbow. Describe this event using your five senses.</p>	4	Narrative Informative/Explanatory

<p>Science</p>	<p>Pretend that you are a horned lizard. What is your life like? Write a story about a day in your life. Use what you have learned from the reading and the picture as details in your story. You might want to use dialogue to make your story more interesting.</p> <p>PDF - Reading: Horned Lizards Photo: The Horned Toad (Lizard)</p>	<p>4</p>	<p>Narrative Informative/Explanatory</p>
<p>Science</p>	<p>Imagine you are an astronaut who has landed on the Earth's moon. You are going to write about your experience in your journal. What will the moon be like? What will you see? Use your imagination and facts from the reading, photos and video to describe your experience from an astronaut's point of view.</p> <p>PDF - Reading: On the Moon Video: Moon Landing Photos: The Moon's Surface</p>	<p>4</p>	<p>Narrative Informative/Explanatory</p>
<p>Science</p>	<p>Read "A Butterfly is Born". Listen to the song. Look at the chart. Then, pretend that you are a butterfly. Write a story about your life as a butterfly. Be sure to start from when you are an egg. Tell about each part of your life. Use information from the reading, the song, and the chart. Use description to make your story more interesting.</p> <p>PDF - Reading: A Butterfly is Born Song: Metamorphosis Chart: The Lifecycle of a Butterfly</p>	<p>4</p>	<p>Narrative Informative/Explanatory</p>
<p>Science</p>	<p>Write a story about what it would be like to be your favorite animal. It could be an animal you have had as a pet, or it could be an animal you have only seen in a zoo or read about. What is your life like as this animal? Use facts and details to make your story interesting.</p>	<p>4</p>	<p>Narrative Informative/Explanatory</p>
<p>Science</p>	<p>Read about soil. Be sure to read all three articles, and to click on the Food Web button on the third page. Then write an explanation of why soil is so important to us. Use facts from all four sources to support your explanation.</p> <p>Article: What is Soil? Article: Soil Importance Article: Incredible Journey</p>	<p>5</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>After reading about deforestation and viewing the video, write an essay that explains the problem of deforestation. Explain why farmers and lumber companies are cutting down trees. Also explain why this is so dangerous to the Earth. Use specific facts and examples from the readings and the video in your explanation.</p> <p>PDF - Reading: Deforestation Webpage: Ranger Rick and the Borneo Rainforest Video: Saving Madagascar's Forests</p>	<p>5</p>	<p>Informative/Explanatory</p>

<p>Science</p>	<p>Based on the stimulus material, both articles and videos, what do you understand about how geysers change the surface of the earth? Write an essay explaining your understanding. Be sure to include specific details from the stimulus material in your essay to support your explanation. You may also include information you have learned from your study of the Earth.</p> <p><i>Article: Geyser</i> <i>Graphic: How Geysers Work</i> <i>Graphic: Anatomy of a Cone Geyser</i> <i>Video: Yellowstone Geysers and Thermal Features</i> <i>Video: New Geysers Erupts</i></p>	<p>5</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>The mola mola is an unusual fish. What makes it so unusual? Explore the information about the mola. Be sure to click past the advertisement page for the second video. Then write an essay for your classmates, telling them about this amazing creature.</p> <p><i>Video: The Mola Mola</i> <i>Video: Swim with the Mola Mola</i> <i>Webpage: Ocean Sunfish or Mola</i></p>	<p>5</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Why is it a good idea to study animals and learn about their special talents? Suppose you have friends who think that animals should be left alone. Tell these friends why studying animals can help human beings. You should use facts and details from the reading and the video. You may also use your imagination to think of other good reasons why studying animals is a good idea.</p> <p><i>PDF - Reading: Special Dolphin Talents</i> <i>PDF - Reading: No Animal Studies!</i> <i>Video: Adaptations</i> <i>Video: Mudskippers: Walking Fish</i></p>	<p>5</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Suppose you are a scientist who studies earthquakes. You have been invited to give a speech to people who are planning to build some tall buildings in your city. They want to save money and do not want to spend more to make buildings that will withstand earthquakes. Explain to them how they can make their buildings safer and why this is important. Use information from the reading, the video, and the pictures in your speech.</p> <p><i>PDF - Reading: Earthquakes</i> <i>Video: What is an Earthquake?</i> <i>Images: Photos of the Great Alaska Earthquake of 1964</i> <i>Graphic: Tectonic Plates of the World</i></p>	<p>5</p>	<p>Opinion/Argumentative</p>
<p>Science</p>	<p>Read the article and view the graphic and video. Using information from these sources, write an essay persuading your classmates to start a campaign to educate others about the dangers of global warming to the Arctic. Use reasons and details that will appeal to your classmates.</p> <p><i>PDF - Reading: What Happens When the Ice is Gone?</i> <i>Graphic: Polar Bear Food Chain</i> <i>Video: Threats to Animals: State of Polar Bears</i></p>	<p>5</p>	<p>Opinion/Argumentative</p>

Science	<p>What do you think? Do you think people should feed wild birds in the winter or is it better for the birds to depend on nature? Write about why you think people should or should not feed wild birds. Give reasons why you believe as you do.</p> <p>PDF - Reading: Feeding Birds Video: Winter Bird Feeding</p>	5	Opinion/Argumentative
Science	<p>Why is it a good idea to study animals and learn about their special talents? Suppose you have friends who think that animals should be left alone. Tell these friends why studying animals can help human beings. You should use facts and details from the reading and the video. You may also use your imagination to think of other good reasons why studying animals is a good idea.</p> <p>PDF - Reading: Special Dolphin Talents PDF - Reading: No Animal Studies! Video: Adaptations Video: Mudskippers: Walking Fish</p>	5	Opinion/Argumentative
Science	<p>The equator is a very hot place to be, while the North Pole is very, very cold. Write a letter to your parents convincing them that one of these is a better place to visit than the other. Make sure you support your opinion with well-developed reasons.</p>	5	Opinion/Argumentative
Science	<p>One day, you walk into your classroom to find that your teacher has been replaced with a robot. Write a story about what happens in your classroom when the teacher is a machine. Think about how the robot is the same as your teacher, different than your teacher, and what is good and what is bad about having a robot for a teacher.</p>	5	Narrative Informative/Explanatory
Science	<p>After reading the article and viewing the video, write an essay for your school newspaper in which you argue for noise levels being imposed at school functions, such as dances, ball games, and assemblies to protect the hearing of students. Your essay must be based on concepts, ideas, and information from the stimulus materials.</p> <p>Article: Can You Hear Me Now? "Video: Deafening Sound - How Hearing Works"</p>	6	Argumentative
Science	<p>Watch the video and then read the articles about tsunamis. Then write an essay explaining how tsunamis happen and how the invisibility cloak scientists are working on would work. Be sure to support your explanations with facts and details from the stimulus materials and from your study of the Earth.</p> <p>Webpage: What is a Tsunami? Video: Anatomy of a Tsunami Article: The Science of Disappearing</p>	6	Informative/Explanatory
Science	<p>Read the attached article and watch the video on wormholes in space. Then, using the information in the article and in the video, write a narrative about time travel using wormholes. Your story should include clearly-defined characters, plot, and setting. Use techniques such as dialogue and description to further develop your story. Finally, be sure to include evidence from both the article and the video, as well as appropriate knowledge you have gained from our unit on space, in your narrative.</p> <p>Article: Wormholes Video: The Fastest: How to Time Travel</p>	6	Narrative Informative/Explanatory
Science	<p>It is the year 2213, and you play guitar in a rock band. Your band has just taken off in a spaceship to the moon, where you will do a show for people who now live there. Write a story about your trip, using information from your study of space to make your story as authentic as possible. Use dialogue and description to enhance your story.</p>	6	Narrative Informative/Explanatory

<p>Science</p>	<p>Suppose you are living in the year 2100. Over the last century, the Earth's climate has continued to change. You have been doing research on this, and want to document the resulting changes to the Earth and life. Write an essay explaining how your world in 2100 is different from that of the present, using information from the stimulus material and from class assignments.</p> <p>Video: Climate Connections Webpage: Clean Air Kids Webpage: See the Impacts Webpage: Signs of Climate Change Webpage: Effects on People and the Environment Webpage: Clues of Climate Change</p>	<p>7</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>The Solar Impulse is one example of the search for alternative fuel sources. After reviewing the stimulus material, write an essay explaining the scientific principles behind the design, construction, and testing of the Solar Impulse. Be sure to use information you have learned in class as well as facts and details from the article and the video.</p> <p>PDF - Reading: Solar Impulse Completes Journey Across U.S. Video: Solar Aircraft To Attempt Globe-Spanning Flight</p>	<p>7</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Famed American aviator Charles A. Lindbergh may have surprised some people when he said, "If I had to choose, I would rather have birds than airplanes." What do you think Lindbergh was trying to say about man and nature? If the choice was yours to make, which would you choose and why? In your essay, use comparison and/or contrast to fully develop your essay.</p>	<p>7</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Write a letter to your superintendent explaining why your school district should make school starting times later for middle and high school students. Use the information in the stimulus material to form and support your argument.</p> <p>Article: Explainer: Our Bodies' Internal Clocks Video: Later School Start Time has Surprising Results</p>	<p>7</p>	<p>Argumentative</p>
<p>Science</p>	<p>Recent discoveries with DNA and its regeneration have suggested to scientists that it would be possible to recreate extinct animals from their recovered DNA. Read the articles and view the video about the regeneration of extinct species. You may want to take notes on the video and your reading. Then plan and write an essay in which you argue for or against this idea. Be sure to explain the opposing claim and to cite specific evidence from the three sources to support your claim.</p> <p>PDF - Before You Read: Should We Bring Back Extinct Species? PDF - Article: Should We Bring Back Extinct Species? Video: Should We Bring Extinct Species Back to Life? Article: They're Back!</p>	<p>7</p>	<p>Argumentative</p>
<p>Science</p>	<p>Write a narrative from the point of view of an animal. The animal can be a wild one or a pet. The narrative can be a biography or a story about a specific event. Include the animal's feelings about its life, humans, its environment, etc.</p>	<p>7</p>	<p>Narrative Informative/Explanatory</p>

<p>Science</p>	<p>Read the stimulus material about kudzu and view the videos. Then write an essay explaining how the introduction of kudzu and Jacob's invention each represent a way in which humans impact the earth. Then use these examples to draw conclusions about how problems like kudzu could be prevented. Use facts and details from the stimulus material to support your ideas.</p> <p>PDF - Poster: Unwanted by the FBI Video: Kudzu - A Very Wicked Plant Video: "Kudzu Kid" Invents Killer Device</p>	<p>8</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>You've been asked to help create a brochure on how young people can help conserve energy at home. Write an essay that will appear in the brochure explaining different ways young people can change their daily activities to help cut back on gas, oil, and electricity usage. Use the stimulus material for information on this topic, and add examples to make your essay more interesting.</p> <p>Webpage: How You Can Save Energy</p>	<p>8</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Imagine you have decided to live in a solar-powered home. Your friend tells you this is a bad idea, because it will cost too much. Your friend thinks you will not have electricity at night or on cloudy days. Write about why you think it is a good idea to live in a solar-powered home. Make sure you include facts on how your decision will help the environment.</p> <p>PDF - Reading: That's Solar Power!</p>	<p>8</p>	<p>Argumentative</p>
<p>Science</p>	<p>After reviewing the articles and video, write a letter to your congressman asking him/her to support stronger laws to protect ecosystems from biological or physical changes affecting its populations. Use examples, facts, and details from the stimulus material to support your argument.</p> <p>Webpage: Saving Nemo Webpage: Saving Wetlands Article: Four Years into the Gulf Oil Disaster: Still Waiting for Restoration Science Standard Addressed With This Prompt: 2.3</p>	<p>8</p>	<p>Argumentative</p>
<p>Science</p>	<p>After reviewing the stimulus material, what do you think about the reintroduction of gray wolves? Is this a good idea or a bad one? Support your position with facts and specific details from the video and the article as well as information from your study of ecosystems.</p> <p>Picture: The Gray Wolf Article: The Call of the Wild Video: Yellowstone Wolves Controversy Audio: Wolf Howling</p>	<p>8</p>	<p>Argumentative</p>
<p>Science</p>	<p>Write a story from the point of view of a flower or plant. Use information from the stimulus material to make your story realistic. Be sure to use narrative techniques, such as dialogue, well-developed characters, and description to make your story more interesting.</p>	<p>8</p>	<p>Narrative Informative/Explanatory</p>

<p>Science</p>	<p>The increased human population and use of natural resources greatly impact the Earth’s ecosystems. After reviewing the stimulus material, write a story set in the year 2075, using information from the stimulus material and your class’s study of human impact on the Earth. Your narrative should include a setting and plot that reflect the results of this human impact. Read the directions below before viewing the stimulus material. Lorax Project: Click on “Forests” and then on the picture of the mountains of Southwest China. EcoKids: Be sure to read all four sections: Home, Agriculture, Sprawl and Greenbelts.</p> <p>Webpage: Forests on the Mountains of Southwest China Webpage: The Land We Love</p>	<p>8</p>	<p>Narrative Informative/Explanatory</p>
<p>Science</p>	<p>Many communities have pollution problems with their air or water. Can you think of solutions to the problem of pollution in your community? Write an essay describing how pollution affects your community and what can be done about it. Use concrete details and examples from the article as well as your own knowledge and experience to support your ideas.</p> <p>Webpage: Air Pollution</p>	<p>9</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>After reading the two attached articles, write an essay explaining the issue they address. Use textual evidence from the articles to support your explanation, and be careful to differentiate between each article's information and evidence.</p> <p>Article: Wasted Food = Wasted Water Article: When You Waste Food...</p>	<p>9</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Several international relief agencies have issued a joint statement condemning the use of food crops for bio-fuel production. Environmental groups have countered this statement with one of their own touting the environmental benefits of using bio-fuels. Read the attached article on bio-fuels and consider the rationale underlying each group's statement. Write a well-developed essay explaining each group's position, analyzing each claim's merit.</p> <p>Article: Biofuels</p>	<p>9/10 11/12</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>Write a brief essay in which you inform your peers about the dangers of soda consumption. Be sure to use information from both the article and the advertisement as you inform your peers about the negative effects that can occur from drinking soda.</p> <p>Advertisement: Sugar-Loaded Drinks Article: Four Reasons to Avoid All Soda (Even Diet)</p>	<p>9</p>	<p>Informative/Explanatory</p>
<p>Science</p>	<p>After reading the attached article, write an essay in which you take a position on the ban on hard structures at the North Carolina's Outer Banks. Assume the role of either a property owner or a member of the CRC, using information in the article to support your position. Be sure to include information about how erosion occurs, the effects of hard structures, and the pattern of longshore drift.</p> <p>Article: Coastal Erosion and the Ban on Hard Structures</p>	<p>9 12</p>	<p>Argumentative</p>

<p>Science</p>	<p>Suppose you are an investigative reporter for a nationally acclaimed newspaper. After reading the attached articles, write a story in which you are investigating the claim that women are not treated equally in the field of science. Use information from the articles, since your narrative should be fact-based. You may wish to write portions of your narrative as interviews with the women featured in the articles. You may, of course, set the story in any year you wish. As a reporter, you may choose, as well, to draw conclusions about the equality of men and women in science. However, you must be sure that you have built a foundation for these conclusions in your narrative.</p> <p>Article: 6 Women Scientists Who Were Snubbed Due to Sexism Video: In Her Words: Sylvia Earle on Women in Science</p>	<p>9/10 11/12</p>	<p>Narrative Informative/Explanatory</p>
<p>Science</p>	<p>Scientists discover potential new cures for disease every day. When they are developing medicines, they need to have some way to test whether or not the medicine will work for humans. For years, scientists have tested drugs by using them in various ways on animals. Unfortunately, as a result of making sure a substance is safe and effective for humans, many animals are injured or die. How do you think these situations should be handled? On the one hand, it is bad to make animals suffer, but on the other hand, scientists need to conduct these experiments to show that the medicines people use are safe and effective. After reading the stimulus material, write an essay arguing for or against this issue. Use the most relevant evidence from the articles for each side, pointing out the strengths and limitations of both claim and counterclaims.</p> <p>Of Cures and Creatures Great and Small Why are Animals Used for Testing Medical Products?</p>	<p>10</p>	<p>Argumentative</p>
<p>Science</p>	<p>Medical science is now able to test for certain diseases that allow people to find out if they are likely to have that disease later in life. Is it better for a person to know that he or she will develop a serious illness? After reading the stimulus material, write a response you might use to a close friend or relative who is considering this test. Use information from the two articles to support your argument. Be sure to address the counterclaim as well.</p> <p>Article: Frequently Asked Questions About Genetic Testing Editorial: "My Medical Choice" by Angelina Jolie Get Ready for the Risks of Genetic Testing</p>	<p>10</p>	<p>Argumentative</p>
<p>Science</p>	<p>After reading Carl Zimmer's article, write a narrative about a science exploration to Mars in search of the "origin of life," based on Brenner's theory. Use information from the article and your own knowledge of Mars, the history of the earth, and chemical reactions to make the science in your story realistic.</p> <p>Article: A Far-Flung Possibility for the Origin of Life</p>	<p>11</p>	<p>Narrative Informative/Explanatory</p>