

Structured Knowledge Building

Amplify ELA's text sets are sequenced so that students build knowledge and vocabulary across the year and into subsequent grades. In all cases, core texts meet the complexity criteria for each grade and have been sequenced to build knowledge through steadily increasing complexity of quantitative and qualitative measures and task considerations.

Moreover, each Amplify ELA unit provides a collection of texts that have been curated to build systematic knowledge across a given topic. Within each unit, students collaborate to build this knowledge through reading, writing, and speaking and listening, all grounded in the evidence drawn from each text under study.

For example, in Unit 6D: The Greeks, students explore a number of myths, including an excerpt from *The Odyssey* with which students examine the character traits that define Odysseus during his meeting the Cyclops Polyphemus. In the following unit 6E, students read Guadalupe Garcia McCall's *Summer of the Mariposas*, a retelling of Homer's *The Odyssey* in modern times. Throughout the unit, students examine the traditional hero's journey structure and compare McCall's characters to those in the original *Odyssey* (see Grade 6 example below). In the Grade 7 unit, Brain Science, students work with a series of nonfiction texts about early and more current understandings of brain structure and function. The unit supports their growing facility with central ideas, author's purpose, and text structure while also allowing them to make interdisciplinary connections to science and psychology (see Grade 7 example below). Each grade also contains unique, research-oriented Collection units. Each of these units is organized around a specific topic and provides a rich collection of primary and secondary texts, images, and multimedia sources that have been curated to build systematic knowledge across that given topic (see Grade 8 example below).

Grade 6 Unit E : Summer of the Mariposas

Write: Key Comparison or Contrast

@ Assign



Students compare and contrast the encounters between Odysseus and the Cyclops and Odilia and the *chupacabras*. (10 min)

DIFFERENTIATION

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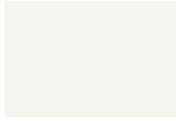
INSTRUCTIONAL GUIDE

chapter 14

EL DIABLITO: “Nomás baila y brinca el diablito cuando anda alborotadito.”

THE LITTLE DEVIL: “The little devil only dances and jumps when he’s agitated.”



I’m tired,” Velia said, and she fell into the nest of clothes we had built ourselves the night before. It appeared to be clean despite our tussle with the *lechuzas*.

What is one key way in which Odilia compares to or contrasts with Odysseus during each character’s encounter with a monster? (You may use your claim from the last activity, if that would be helpful.)

Click NEXT to see the text about the encounter with the Cyclops.

B / U       

Write here...

Student Writing Examples

My claim is that Odysseus and Odilia are more alike in the way they have to deal with the different tests in the story. One key way I think that Odysseus is similar to Odilia is the way they have to use their thinking skills to find a way to beat their enemy. When Odysseus gets trapped he only has a little while because he doesn't know when he will get eaten so he has to think of a plan fast and execute it properly and he did. Odilia also has to do this because they know dark is coming so they prepare weapons to fight the chupacabra. Once the Chupacabra appears Odilia remembers that she has a weapon and quickly stabs the Chupacabra in the eye and blinded it so it couldn't see them.

I believe that Odilia and Odysseus are similar heroes. First I believe that they are similar because they basically start with the same cause for adventure they have a reason to go. For example in the story both Odilia and Odysseus blind the witches and demons with a stake. This shows how they are both similar. My second reason is both Odilia and Odysseus threaten the creature to save their companions. This shows how they are both willing to save their partners. My last third reason is both Odilia and Odysseus make fun of the creature they fought and got cursed. This shows how they are both similar. My last reason is they both have a mentor that helps them throughout their journey. From this information, I conclude They are both similar in a lot of different reasons from stabbing people in the eye to helping their companions throughout their journey.

Odilia's encounter with the chupacabras is similar to Odysseus' encounter with the cyclops because they both poke the evil creatures' eyes out. Also they go out of their way to help people get to safety. They both help their siblings or their group of people there working with help them to. Then Odilia and Odysseus are the main people who actually help the most of the people get from danger to safety as fast as they can. When they save their groups they feel so proud and kinda worried about what's gonna happen next. Then they just need to stay safe and worry about how they're feeling right now.

Grade 7 Unit C: Brain Science

Write: New Understandings of the Brain

Assign

Students write to explain how their own understanding of brain science has changed through reading about Phineas's life. (12 min)

DIFFERENTIATION

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INSTRUCTIONAL GUIDE

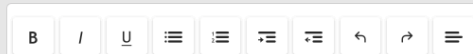


Excerpt from Chapter 4 in *Phineas Gage: A Gruesome but True Story About Brain Science* by John Fleischman

Putting Phineas Together Again

Unfortunately, Phineas is not the only person to have suffered damage to the frontal cortex. Antonio and Hanna Damasio, a husband-and-wife team of doctors, regularly see people who remind them of Phineas Gage. The Damasios are renowned brain researchers at the University of Iowa Hospitals & Clinics in Iowa City and treat patients with the same kind of frontal lobe damage that afflicted Phineas. Like Phineas, these patients with frontal lobe damage have trouble making decisions. Like Phineas with

Scientists' understanding of the brain has changed dramatically since Phineas's time. How has your understanding of the brain changed since you began reading about the life of Phineas Gage?



Write here...

Student Writing Examples:

My understanding of the brain has slightly changed. I knew that certain areas of the brain can be damaged, and the person can still be alive, yet I have never seen anyone actually survive. Such a circumstance would be extraordinary, as it would contradict the beliefs of people as the kind of injury would likely have already occurred, changing the beliefs of the people living in the time period, who obviously didn't know what we do now, like with MRIs and other such machines that can prove theories that we assumed with theories and philosophies. We didn't know how the brain truly worked, and they couldn't possibly know that the brain has control over the body in the 1800s. They knew about bacteria, but also not how it played a part in Phineas' story.

I knew barely anything about the brain before I read about Phineas Gage. I thought the brain was just one big piece. Now I know that the brain has 6 parts to it, and they all do different things to and for the body. previously, I knew that the brain was one of the most helpful things in your body, But I didn't know that it was that helpful. After reading about Phineas Gage, my understanding of the brain changed because, I learned that you can survive a server accident like that. Phineas is a very brave man but he was never the same after the accident.

I understand now that someone can still function if a part of their brain is severely damaged and even live for years after. If one part of your brain is damaged for example the frontal cortex you can still do everything you were able to do before, but you can change as a person. If this part of your brain is damaged you can be a completely different person and not even think the same. I also know now that we can digitally create a model of someones brain to examine where the damage has taken place. We can even do this for Phineas years after his death.

Grade 8 Unit F: The Space Race

Research Option 1: An Argumentative Essay

Was animal testing necessary during the Space Race?

Research and discover what the Soviets and the Americans were trying to understand when they sent animals into space. Was animal testing necessary? Was it fair or moral to send animals into space for research purposes? Could the scientists have found the answers they were looking for without sacrificing animals? If so, how?

Research sources in the Collection and on the Internet as you collect evidence and prove your case. Write an argumentative essay persuading your reader of your way of thinking. Be sure to include a list of the resources you used in your research.

Research Option 2: An Informative Essay

How did Katherine Johnson and the other women who worked with her at NASA impact the Space Race?

Write an informative essay about Katherine Johnson and the other key women who worked at NASA during the Space Race era. Who were the other key women who worked with Katherine Johnson and what roles did they play? What barriers did they face? How was the Space Race impacted by their work?

Student Writing Examples:

Essay 1:

Was animal testing necessary during the space race? No, I don't think animal testing was necessary during the space race for many reasons. It was unethical, a bad use of money and time, and less efficient than other solutions.

Reason number one, the testing was unethical. For example, the dog Laika and many other animals were killed in space in horrible painful ways. According too the excerpt "And a Dog Shall Lead Them" " Leather straps kept her from turning around." and "Laika was subjected to a truly deafening roar, She panted furiously and her heartbeat raced to triple its resting rate as the acceleration created pressures several times greater than the force of gravity. They also say "Laika probably died from heat exhaustion." That is so wrong in many ways. They had no say in being put in space and I'm sure that many humans would take a risk and go to space. Not just the animals life were at cost. Things like lots of money and time was put into this.

Reason number two, The money and time could have been put to better use I think that the amount of money and time that was put in is outrageous. I understand going to space to maybe get materials and things like that. I also think that we should focus on the problems we already have here on earth. With the money put into space we could of ended homelessness several times. According to billofrights institute, That could have been put towards much better things and it was wrong to do that.

Reason number three, I mentioned this earlier but i'm 100% positive that many people would go to space. You know what I mean? What's even the point of sending animals into space when a person could go up and give feedback. A dog can't report back the condition of the ship and what's happening. It would be so much better and more efficient ;if we just sent a person. In doing so, that would also remove the cruel and unethical aspect of it.

In conclusion, Animal testing is unethical, a horrible use of money and time, and testing with real people would be way more efficient. It should be obvious that sending animals to space was completely wrong and unnecessary.

Essay 2:

You may know about Katherine Johnson but did you know there were many other women who contributed to the space race? In a time when women weren't allowed the same rights as men there was a lot of incredibly brave women who stood up for their right to work. If these women hadn't fought to work the space race could have ended very differently. Many women who contributed to the space race have gone unseen. Without the women who contributed to the space race by helping with many aspects of the missions such as calculating flight paths, training astronauts, and engineering for NASA the space race might have failed.

Katherine Johnson is one of the most well known women who worked to help NASA during the space race. She calculated many flight paths since at this time computers were a very new piece of technology which was not completely trustworthy. According to the article Katherine Johnson's STEM contributions marked on her 103rd birthday, Katherine checked the math for the first orbital space flight "At a time when digital computers were relatively new and untested, she famously checked the computer's math for John Glenn's historic first orbital spaceflight by an American in February 1962." (Dunbar 3). As you can see people depended on Katherine to check flight paths to ensure the mission would go smoothly. Without Katherine checking the math there wouldn't have been any way of knowing if the computers math was correct and the whole mission could have ended in catastrophe.

Christine Darden was another woman who impacted the space race in a great way. Christine was an engineer for NASA who would write computer programs and much more. Her first assignment after becoming an engineer for NASA was writing a computer program that would demonstrate a sonic boom. According to the article Hidden No More: Black Women Groundbreakers at NASA Christine focused her career on sonic boom minimization "Darden's first assignment was to write a computer program that modeled a sonic boom. This led to a 25-year career focused on sonic boom minimization. However, that is not all she contributed"(Cochrane 9). If she hadn't contributed to the research for minimizing sonic booms, many peoples life's could have been affected and the space missions could not have occurred. Thanks to Christine we were able to continue the space missions safely and successfully.

Another woman who impacted the space race greatly is Patricia Cowings. Patricia trained astronauts to control the sickness they would get from going into space. With this training astronauts could safely go into space without being affected by the sickness. In the article Hidden No More: Black Women Groundbreakers at NASA, they state Christine would help control the sickness by inducing it, "Cowings' tests induced sickness so she could learn how to combat the effects. Because astronaut training time is precious, she had to come up with a program that would take astronauts no longer than six hours to learn to control the sickness." (Cochrane 12). By inducing the sickness she learnt how to combat it so the symptoms wouldn't be as severe. This allowed astronauts to be fully prepared to go into space without feeling extreme fatigue. If she hadn't contributed to helping the astronauts control the sickness that came with going into space, there wouldn't be any way of knowing if astronauts would be able to safely go to space.

As you can see Katherine Johnson and the other women who worked at NASA impacted the space race in many ways. These women changed the way the space race would have gone completely. Without these women there is a chance the space missions would have ended in catastrophe. These women are incredibly important to our history and without them we wouldn't know as much about space.