



Daily DE

— HIGH SCHOOL GRADES 9-12



Week 5: Grades 9-12

MONEY MONDAY

Explore self-paced online modules and other tools to equip you to make sound financial decisions to meet your life goals.

TECH TUESDAY

Learn more about the way that emerging technologies are solving everyday problems.

WELLNESS WEDNESDAY

Empower yourself to make good decisions for the health and well-being of yourself and those in your community.

TRY-IT THURSDAY

Get hands-on as you engage in the scientific thinking process.

FIELD TRIP FRIDAY

Go on virtual field trips to amazing destinations and learn more about the many career options available to you.



WEEKEND CHALLENGE

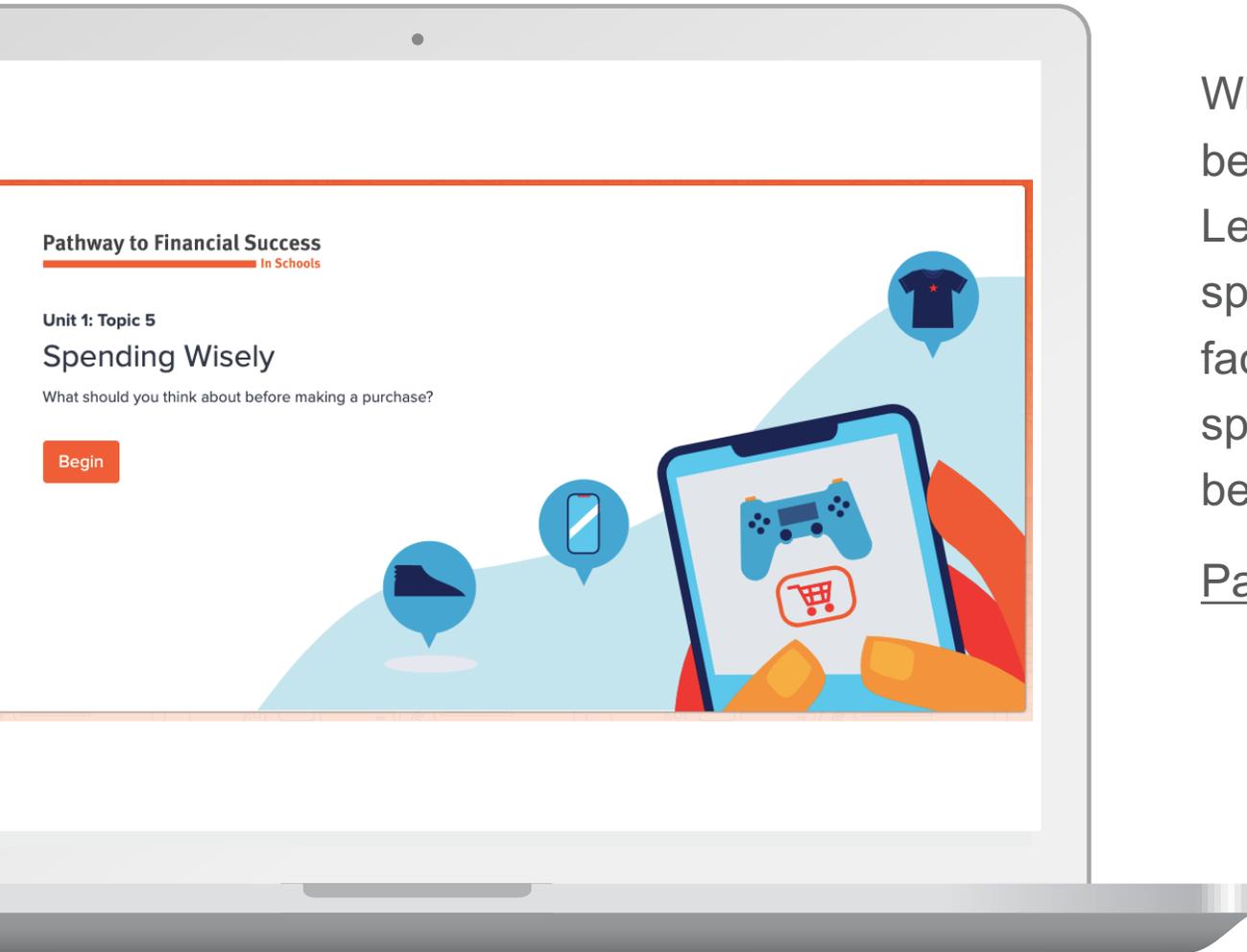
Visit [Conservation Station](#) to complete an [Energy Audit](#) of your family home this weekend. Determine the top 3 devices that consume the most electrical energy and develop a plan to reduce the amount of energy used in your house.





Money Monday

Making Wise Financial Decisions



What should you think about before making a purchase? Learn to analyze your spending choices and the factors that affect your spending, so you can think before you spend.

[Pathway to Financial Success](#)



SELF-PACED MODULE



TOPIC 5
Spending Wisely
🕒 10 to 15 minutes

What should you think about before making a purchase? Learn to analyze your spending choices and the factors that affect your spending, so you can think before you spend.

[Launch Module](#) 



Tech Tuesday

Cracking the Code

Have you ever wondered how epidemiologists use technology to track disease? Or, how genomics can be used to stop outbreaks?

In this activity, you will investigate how viruses pass from person to person and how scientists use DNA to track disease outbreaks.

Watch [*What is Epidemiology*](#) and download the [Genetics Detective](#) article to review the methods epidemiologists use to study and track disease outbreaks.

Then, review the [Perspectives of an Outbreak](#) handout.

Discuss how genomics and the field of epidemiology work together to impact the tracking and spread of disease with someone in your home.

[DNA Decoded Activities](#)

DNA decoded

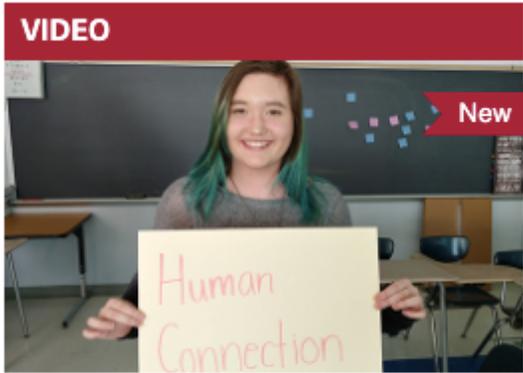
Disease Detective | Student Activity

PERSPECTIVES OF AN OUTBREAK

Epidemiologist Investigates patterns and causes of disease and injury in humans. They plan and direct studies of public health problems, collect and analyze data, communicate their findings to health practitioners, and manage public health programs.	Reporter/Journalist Informs the public about news and events happening. They research topics and stories, investigate and interview people, and communicate their findings.
Infectious Disease Doctor Trained to be an expert in the diagnosis and treatment of infectious diseases. They help deal with pandemics and emerging disease outbreaks.	Center for Disease Control Researcher Work to improve health and save lives around the world. They design and analyze information from controlled investigations, experiments, and trials.



Wellness Wednesday



This is Your Brain on Happiness

Grades 7-12

4 min. duration

Happiness is an essential aspect of what it means to be human. Explore the science behind happiness and how happiness can affect our sympathetic and parasympathetic nervous systems.

 **Watch Video**

Discover Your Happy: Your Brain on Happiness

Before watching the video, consider the statements below and decide if you believe they are true or false.

- 90% of our happiness is due to external circumstances. True/False
- Happiness is a skill that can be taught. True/False
- Our brains do not have the ability to change after the age of 10. True/False
- The sympathetic and parasympathetic nervous systems work to counteract one another. True/False
- The limbic system is called our fight or flight system. True/False
- Higher level thinking occurs in the center of our brain. True/False
- There is no connection between happiness and performance in school. True/False

Discover Your Happy: Your Brain on Happiness

Now, watch the video. As you watch, consider the statements from the prior slide.

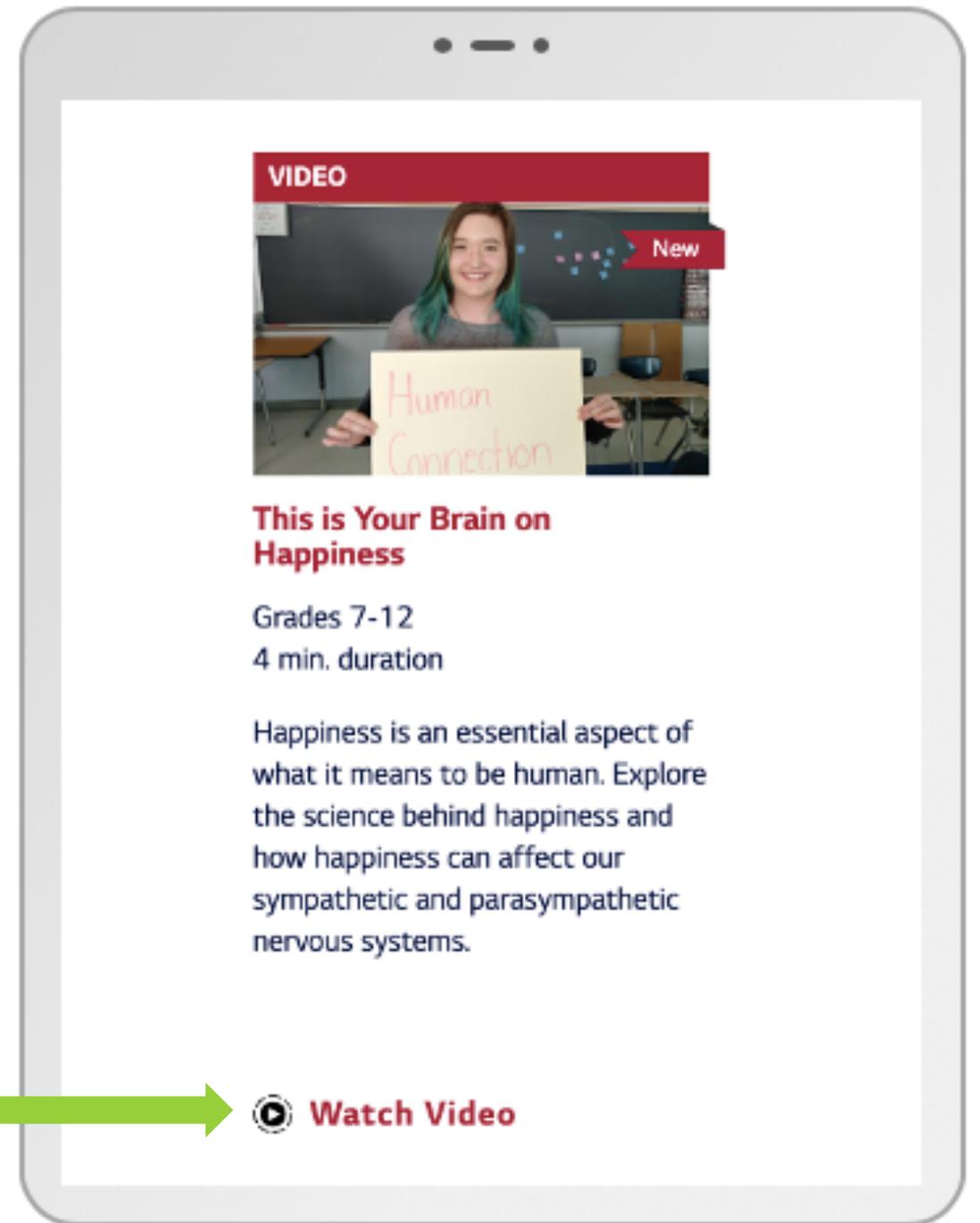
Have any of your opinions changed? Why?

Identify evidence from the video that supports your decision for each statement.

Rewrite any statements that you determine to be false so that they were more factual.

Make a list of “5 Things You Did Not Know” about the brain and how happiness can affect it.

[Experience Happiness: Discovery Your Happy](#)



VIDEO

New

Human Connection

This is Your Brain on Happiness

Grades 7-12
4 min. duration

Happiness is an essential aspect of what it means to be human. Explore the science behind happiness and how happiness can affect our sympathetic and parasympathetic nervous systems.

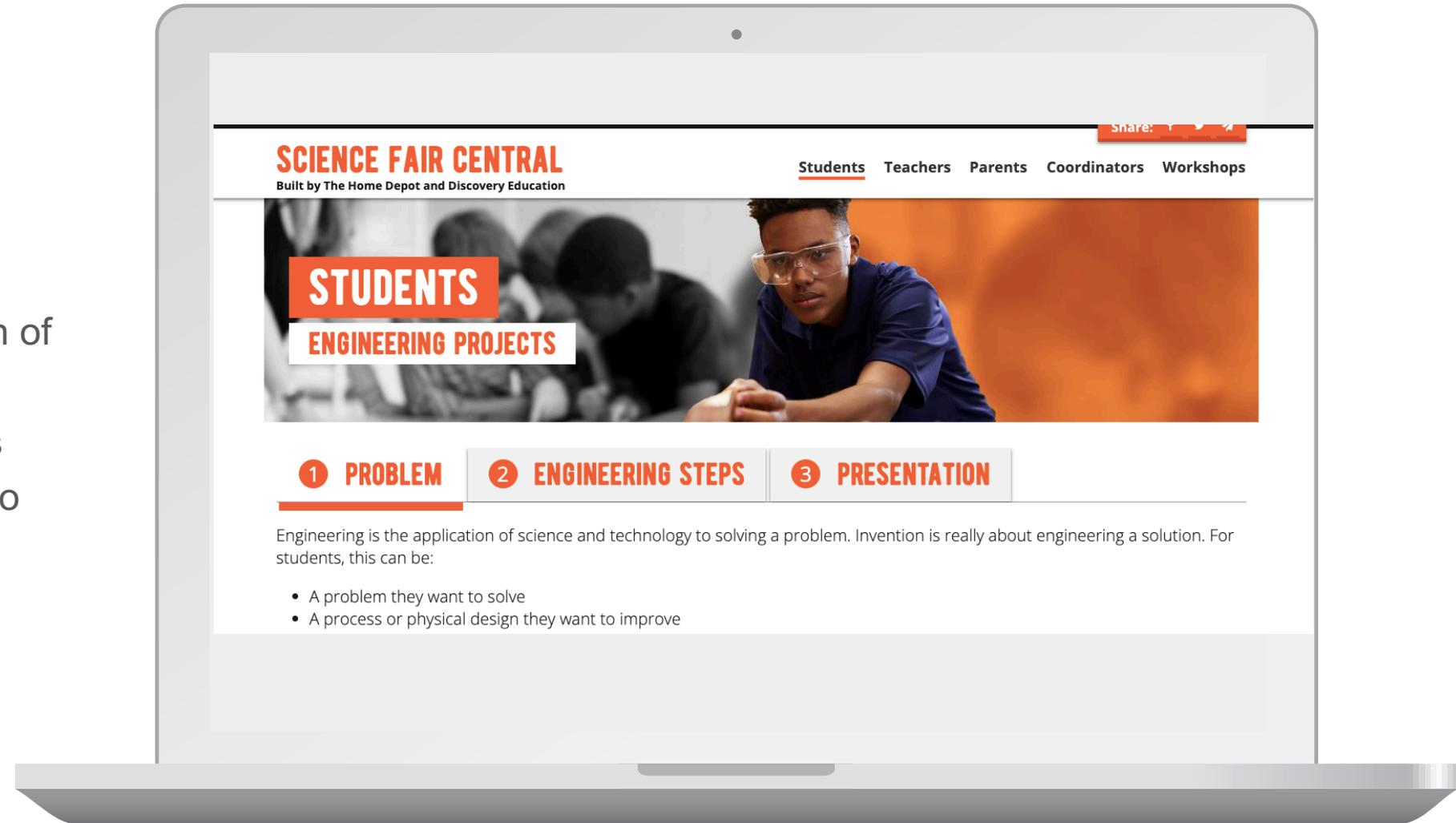
 **Watch Video**



Try-It Thursday

Engineer a Solution!

Engineering is the application of science and technology to solving a problem. Engineers look for problems they want to solve or how to improve a process or physical design. Creating an invention is an example of an engineering a solution.



How can you keep your juice cool?



My juice gets warm in my lunchbox.

Science Topic: Conserving heat

Design Question: How can I keep it cold?

Select this problem

Continue to the next step.



Consider:

- ✓ What is the problem that you want to solve?
- ✓ What scientific concept do you need to research?
- ✓ What information do you need to collect?
- ✓ What materials will you need?
- ✓ What design might solve the problem?
- ✓ How can you test your design?
- ✓ How can you improve your design?

Use the Engineering Design Worksheet to guide you through your process.

SCIENCE FAIR CENTRAL

ENGINEERING DESIGN CHALLENGE

Engineering is the application of science and technology to solving a problem. Engineers look for problems they want to solve or how to improve a process or physical design. Creating an invention is an example of an engineering solution.

Ask

As with investigations, the key to defining the project is by posing the right question. Students can ask themselves, "What bothers me?" "What have I heard other people complaining about?" Is it something that could be fixed or improved on. Find a local problem or something that needs to be improved.

Imagine

Brainstorm several ideas and consider many different solutions. Then, research your idea to find out what others know. This might include looking at other products or solutions that exist already.

Plan

Select one solution and make a plan! Design the solution and the method for testing to see if it works.

Create

Create a solution and explain why it should work. Build a prototype using a physical model or Computer-Aided-Design Software.

Test

Test the solution and collect data to be sure your solution made a change. Make sense of the data - how do you know it worked, or didn't work? Did it solve the identified problem?

Improve

How could you improve your solution? Make revisions based on your test results and observations. Draw new designs to continue to improve your idea.

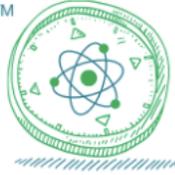
Discover more engineering design ideas to explore.



Field Trip Friday

NAVIGATING™ NUCLEAR

Energizing Our World



Join us as we go behind-the-scenes at the Palo Verde Generating Station, the largest power plant in the United States. Watch now to see how nuclear technologies are helping to develop more environmentally friendly electrical power!

As you watch the Virtual Field Trip, complete the [Careers in Nuclear Energy Capture Sheet](#)



[Navigating Nuclear Virtual Field Trip](#)

Explore Careers

Name _____ Date _____

STUDENT HANDOUT

Career Profile Research

Directions: Conduct internet research to further explore a career that you learned about in the Virtual Field Trip. Record your notes below.

CAREER NAME	_____
Brief Description	
Training & Skills Required	
Salary Range	
Related Careers	
Current job openings, if available	
Current classes I am taking that impact this career	
How this career matches my interests/skills/strengths	
Training opportunities I would need in the future to pursue this career	

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Energizing Our World

www.navigatingnuclear.com

After collecting information about the four careers highlighted during the virtual field trip, choose one to research further.

Complete the Career Profile Research Sheet for your chosen career profile.

Discuss the career with a family member. What about this career interests you? What are some of the things you would need to do in preparation for this career?

References:

Money Monday: Spending Wisely

Program URL: <https://www.pathwayinschools.com/>

Specific URL: <https://www.pathwayinschools.com/sites/default/files/discover-1-5/>

Short Link: <https://tinyurl.com/Wise-Spending>

Tech Tuesday: Cracking the Code

Program URL: <https://dnadecoded.org/index.html>

Specific URL: https://dnadecoded.org/pdfs/Activity-Disease_Detective.pdf

Wellness Wednesday: Your Brain and Happiness

Program URL: <http://learnexperiencehappiness.com/>

Specific URL: <http://learnexperiencehappiness.com/educators>

Try-It Thursday: Engineer a Solution

Program URL: <https://www.sciencefaircentral.com/>

Specific URL: <http://sciencefaircentral.com/students/engineering-projects>

Field Trip Friday: STEM Careers

Program URL: <https://navigatingnuclear.com/>

Specific URL: <https://navigatingnuclear.com/palo-verde-generating-station-vft>

Weekly Challenge: Conduct an Energy Audit of Your Home

Program URL: <https://www.learntoconserve.com>

Specific URL: <https://www.learntoconserve.com/educator-resources>