Discovery EDUCATION

Daily DE

MIDDLE SCHOOL GRADES 6-8

Week 4: Grades 6-8

MINDS-ON MONDAY

Explore digital lessons that get you thinking.

TUNDRA TUESDAY

Learn more about polar bears, the arctic, and how you can help protect our environment.

WHELMERS' WEDNESDAY

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

THURZDAY SKILLZ DAY

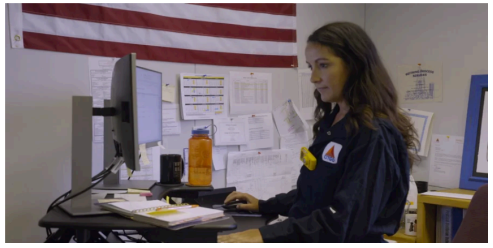
Apply your thinking skills to real-world questions.

FIELD TRIP FRIDAY

Go on virtual field trips to amazing destinations.

CITGO | Discovery Education

FUELING EDUCATION



WEEKEND CHALLENGE

Explore STEM Careers with Fueling Education! Meet Rebecca Andoin and James Steward, employees at CITGO. Learn who they are, what they do and how they got there. Discuss your interests with your family and consider of one of these careers might be right for you!

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Minds-On Monday

E-Cigarette Ingredient Investigation

Because e-cigarettes have not been around for a long time, we don't yet know their long-term effects. This week, work with an adult to learn more and think about ingredients in e-cigarettes with this lesson from Be Vape Free.

- Discuss what you have heard, seen or thought about e-cigarettes and record the information on a piece of paper.
- Have an adult download the digital lesson to access the description of ingredients used in e-cigarettes.

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Nicotine (nick-oh-teen):[1] **E-cigarettes contain nicotine levels equivalent to and higher than conventional cigarettes.**

- Is highly addictive (hard to stop when you start using), especially for young people
- Is very toxic or even fatal if inhaled or swallowed or if it comes into contact with the skin
- Increases your heart rate and blood pressure and can cause dizziness, nausea, and stomach pain
- Can cause overdose, with sympoms including rapid heart rate, nausea, elevated blood pressure, vomiting, diarrhea, dizziness, convulsions, and potentially seizure and death
- Worsens asthma

Formaldehyde (for-mal-duh-hide):[2] **A potential byproduct of heating e-liquid too hot and a chemical used as a preservative for dead bodies and in some strong adhesives used as building materials.**

- Causes cancer in humans
- Suspected to cause birth defects
- May cause damage to kidneys, liver, and central nervous system (CNS)
- Very hazardous if swallowed, if it contacts skin and eyes, or if inhaled

Propylene glycol (pro-puh-leen gl-eye-call):[3] **A chemical in e-juice that mixes well with nicotine and flavor chemicals. Propylene glycol is used in fog machines and helps create a smoke-like vapor when heated.**

- Hazardous if swallowed
- Slightly hazardous and irritating if it comes in contact with skin or eyes or if it's inhaled
- May be toxic to the central nervous system (CNS). Repeated or prolonged exposure to the substance can result in organ damage

Flavor chemicals: There are more than 7,000 flavors of e-cigarette currently. These flavor chemicals are considered safe for use in food but have not been widely tested for their potential sensitizing, toxic, or irritating characteristics when inhaled. The flavor chemicals are listed as generally recognized as safe (GRAS), but this is only for ingestion (eating) and not inhaling.

E-Cigarette Ingredient Investigation

Review the information provided about the ingredients found in e-cigarettes.

- Nicotine
- Formaldehyde
- Propylene glycol
- 8,000+ Flavor Chemicals

As you read, think about the effect of the ingredients and record your reaction on a piece of paper.

Then summarize what you found out about the four ingredients in e-cigarettes and discuss with an adult.

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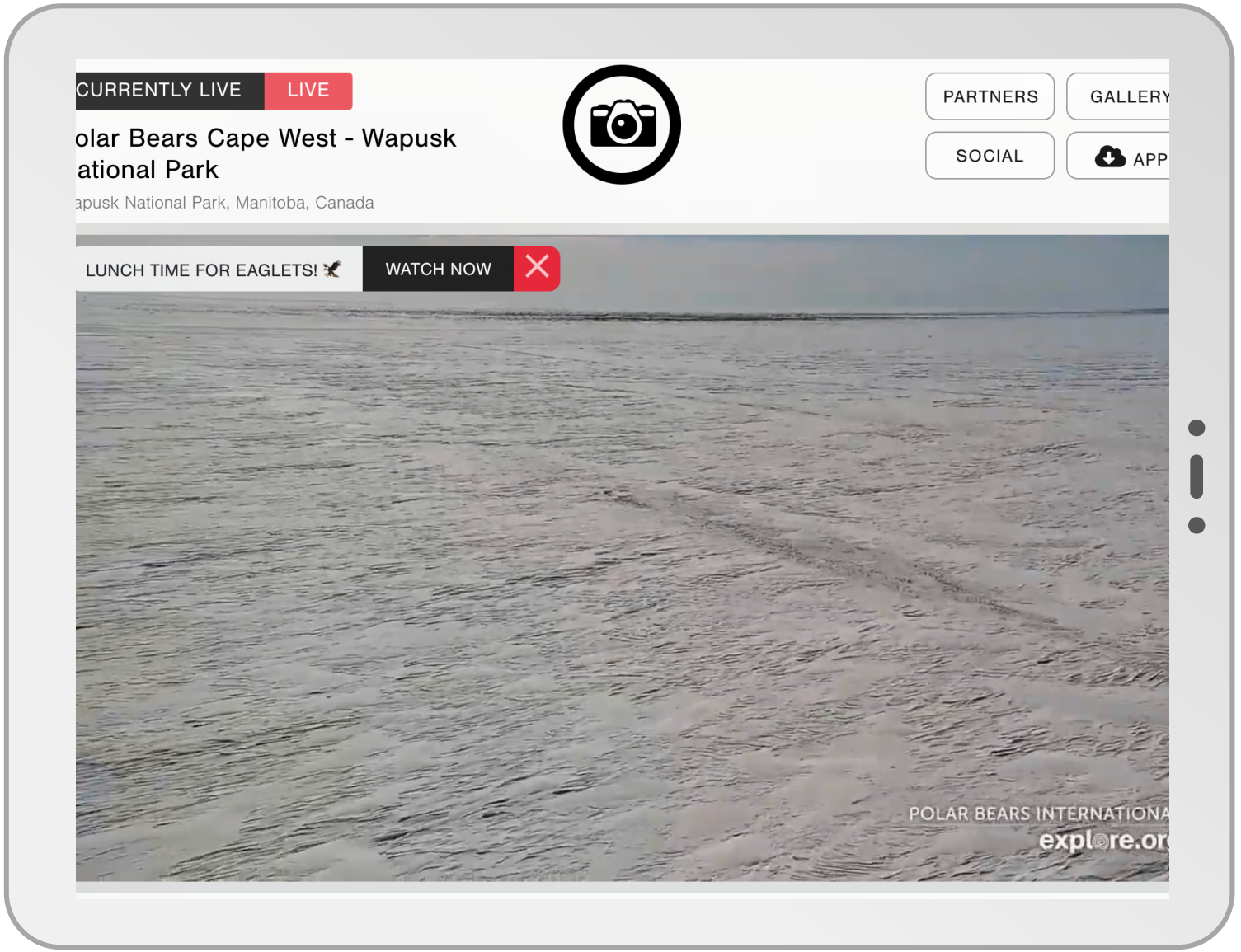
Tundra Tuesday

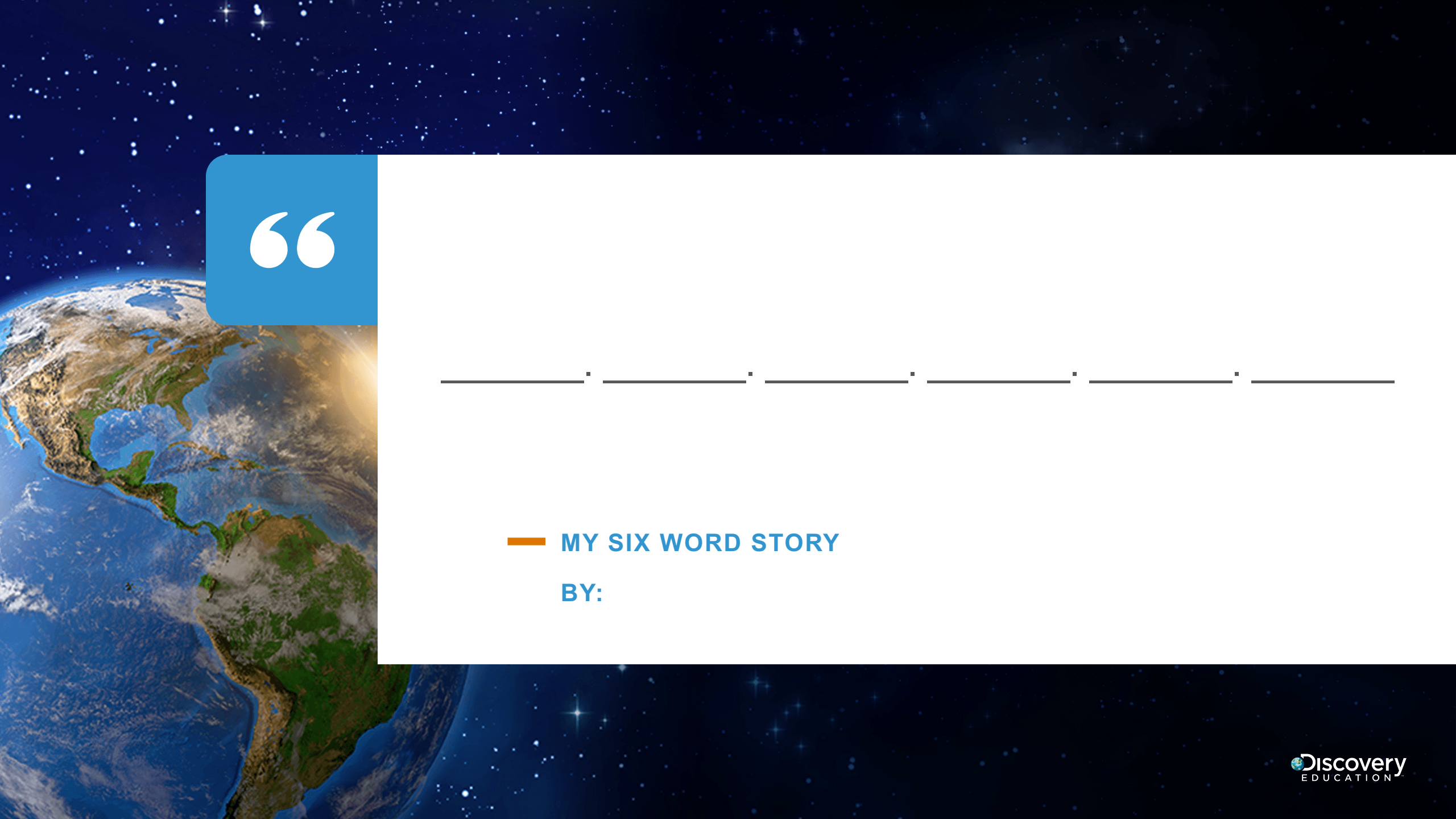
Zen out in Nature

Take some time to relax and refresh while checking in on polar bears, eagles, elephants, gorillas, penguins, puppies, kittens, and more.

Explore the livecam.

Then, create a Six Word Story summarizing what you saw.





_____. _____. _____. _____. _____. _____

— MY SIX WORD STORY

BY:

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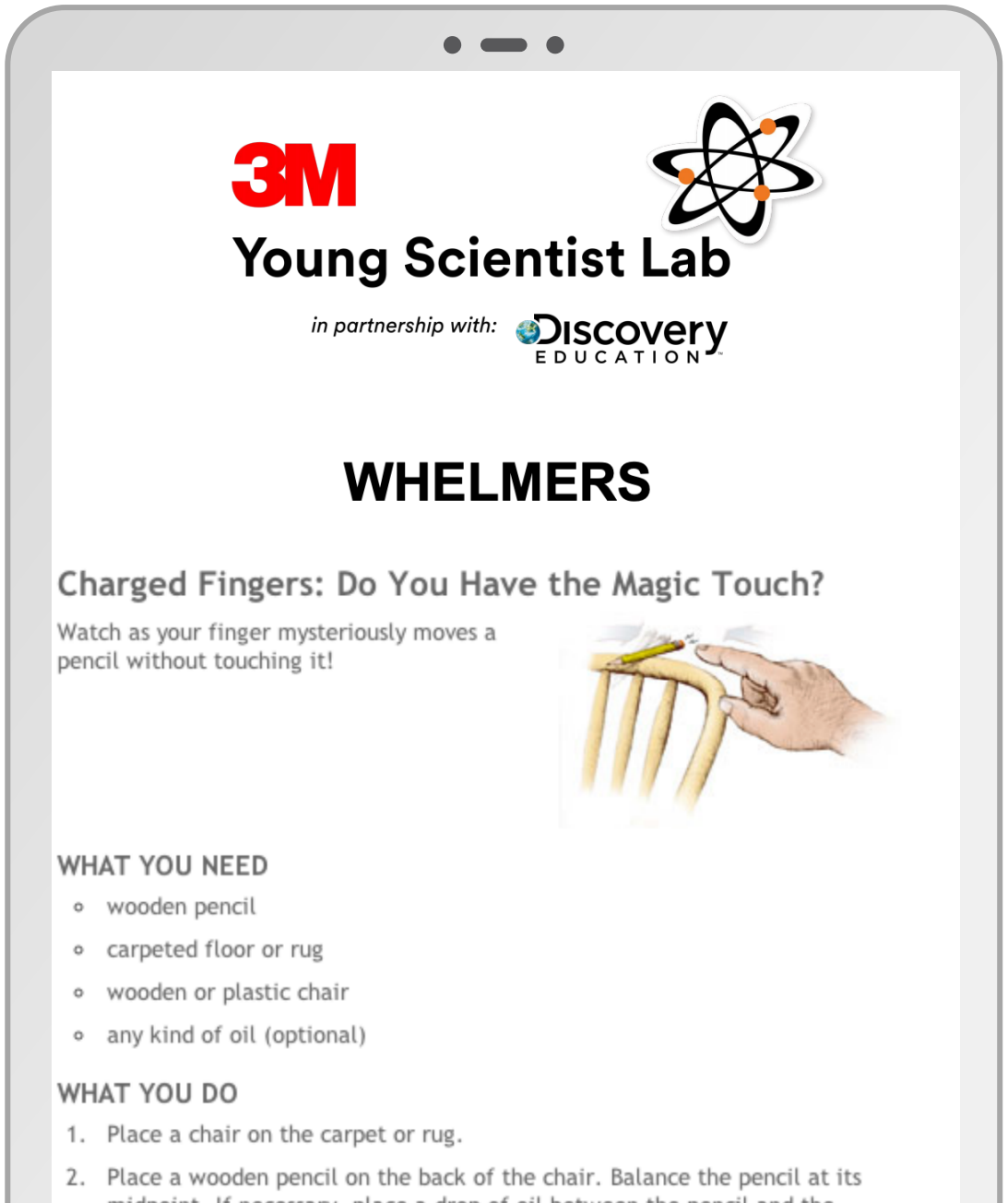
Whelmers' Wednesday



Charged Fingers

Be whelmed! Watch as your finger mysteriously moves a pencil without touching it!

Young Scientist Lab: Whelmers Charged Fingers

BONUS CHALLENGE

Do you have an idea that could solve an everyday problem? Enter the 3M Young Scientist Challenge for a chance to win a $25,000 prize and a mentorship with a 3M scientist! It only takes an idea and a one-to-two-minute video to enter. Find your inspiration with helpful tips and more!

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ThurZday SkillZ Day

The Six Sustainable Happiness Skills

Learn the benefits of the six sustainable happiness skills in this digital experience.

Which skills have you mastered?

Which skills will you commit to improve?

Launch the experience to Discover Your Happy!

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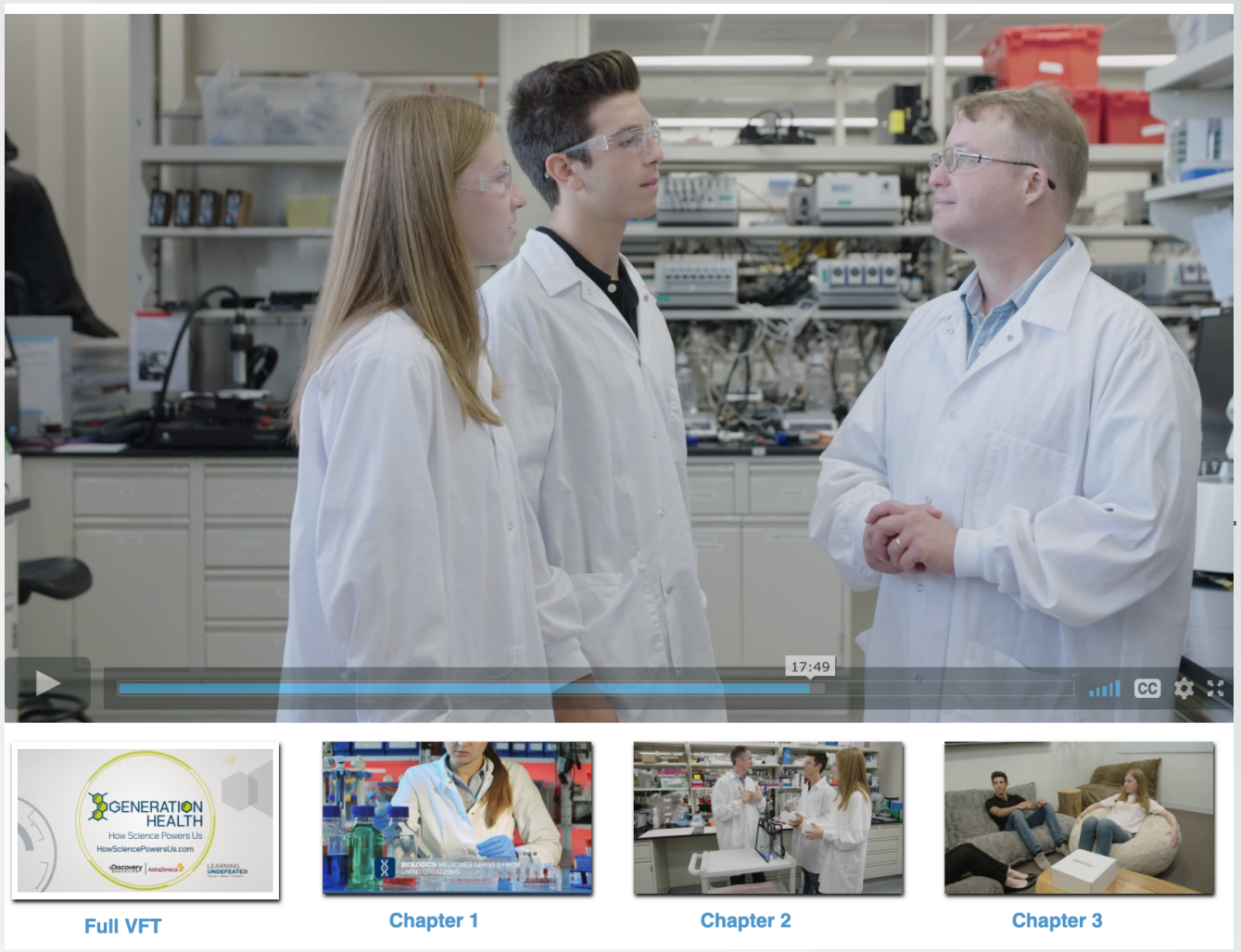
Field Trip Friday

Generation Health

Let’s go on a virtual field trip to discover the fascinating science involved in the pursuit of a new medication.

Generation Health Virtual Field Trip

While watching, think about your talents and interests and match them with careers highlighted in the virtual field trip.



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While watching the Virtual Field Trip, match some of your talents and interests related to each career highlighted.

	List two skills that are critical for each *professional's* work.	List two talents or interests that *you* have related to this job.
Associate Director in Early Oncology	1. 2.	1. 2.
Electrophoresis Subject Matter Expert	1. 2.	1. 2.
Analytical Scientist	1. 2.	1. 2.
Downstream Process Scientist	1. 2.	1. 2.

List two careers from the table and **describe** how they match to your talents and/or interests.

References

Minds-On Monday

Be Vape Free
https://www.bevapefree.org/

Tundra Tuesday

Polar Bears International

https://polarbearsinternational.org

Explore Livecam: https://tinyurl.com/s9qd9w9

Whelmers' Wednesday

3M Young Scientist Lab & Challege

https://www.youngscientistlab.com

https://www.youngscientistlab.com/challenge/about

Charged Fingers: https://tinyurl.com/telfv3d

ThurZday SkillZ Day

Discover Your Happy

https://www.learnexperiencehappiness.com/

Digital Experience: https://tinyurl.com/sq3qm7e

Field Trip Friday

Generation Health

https://www.howsciencepowersus.com/

VFT: https://www.howsciencepowersus.com/education-resources/virtual-field-trip

Weekend Challenge

Fueling Education

https://www.fuelingeducation.com/

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