

# MYSTERY #1 COULD IT BE CORN?

2nd - 5th Grade Teacher Guide

# KANSAS CORN STEMY

This teachers guide is broken into different sections with suggestions of how to use the reader in the classroom and provide ideas on how to extend the learning of your students. A PDF version of this teacher guide with active links can be found at kansascornstem.com under Mystery Corn Reader.

# **Reader QR Code Links**

If your students are unable to use QR codes in the classroom here are the links to share the videos in alternative ways.

- What is a Bushel? <u>https://bit.ly/3Qx56l3</u>
- Farm to Plate: <u>https://bit.ly/3PbOBd4</u>
- Eco-Friendly Packing Peanuts- Cool Science Experiment: <u>https://bit.ly/3AaK5XY</u>

# Reader

This reader can be used in small groups or a whole group for reading or science.

#### Outcome

- Students will be able to understand what corn is used for.
- Students will have knowledge of the targeted vocabulary words.
- Students will be able to explain why plastic products are bad for the Earth.

### **Vocabulary Words**

- Bushel: a measurement for dry goods
- · Livestock: farm animals that are raised for their product
  - example: cows raised for milk, pigs raised for pork, chickens raised for eggs
- Absorbent: able to soak up liquid
- Biodegradable: able to be decomposed by bacteria and other living organisms
- Ingredients: one of the substances that make up a mixture
- Harvested: process of gathering crops
  - example: gathering corn after it has dried out in the field

### Activity

Introduce these words before you begin reading. Ask students if they have heard or recognize the words before. Then, read the definitions and talk about them as a class. Do more of the students recognize the words now? See if students can use the vocabulary words in sentences.

# **Front Cover**

Allow time for students to share their thoughts on the question that was asked. Teachers can write down their ideas on the board so it can be revisited after reading.

Find more fun and interactive resources at kansascornstem.com





#### Inside

- When you come to a vocabulary word, take the time to stop and redefine the word.
- After reading the content revisit what students brainstormed from the front cover's question.
  - Were any of their ideas mentioned in the reading?
  - How did the students know that corn was found in those products?
- After reading about how corn is used to make ethanol, you can extend student learning by using the *Ethanol in the Classroom* website. This is an interactive website where students listen to information and then answer questions as they read. This would be a good resource to use for a whole class discussion.
- Ethanol in the Classroom Provided by RFA: https://bit.ly/3dkc8es

# **Back Cover**

After watching the video, you can conduct the experiment as a whole class or in small groups. Alternative to conducting this activity would be to have students draw pictures of what they can do to cut down on the amount of plastic they use. Brainstorm first as a class and then students can work on their own.

### Materials

- 2 clear cups
- acetone
- styrofoam cup
- water

You will need one clear cup of water and one clear cup of acetone.

- Place the styrofoam cup in the water. What happens to the styrofoam?
- Place the styrofoam cup in the acetone. What happens to the styrofoam?

This experiment shows that when plastic is in landfills, water will not break it down. Once plastic is in the landfill it is there for a very long time. However, using corn products to make these items make them biodegradable because water will break them down.

Ask the students: What other products can you think of that could be made from corn to help with biodegradation?

### Writing Activity

Grade 2-3: Write about what would happen to a landfill if more and more plastic products continue to end up in the landfill. How does this affect our environment?

Grade 4-5: Write about what would happen to a landfill if more plastic products were changed to corn products that are biodegradable. How can this change to more biodegradable products happen in Kansas? What changes can you make at your school to help the landfills?

# **Additional Kansas Corn STEM Resources**

This reader can be used as a stand-alone activity, or you can pair it with other Kansas Corn STEM offerings.

- Free Education Kit and Lesson The best resource to pair with this reader is one of our corn lessons that comes with a free education kit. The kit contains all the supplies needed to conduct a series of lessons that meet NGSS, are inquiry-based and hands-on. No training or prior knowledge about corn is needed to teach these lessons. Request your free kits at <a href="https://kscorn.com/request-materials/">https://kscorn.com/request-materials/</a>
- Lesson Library- With a lesson library of over 90 lessons and labs, you can find numerous resources to use. Make sure to check out our TEACH-FLEX lessons that use easy to find classroom materials. <u>https://kscorn.com/lesson-library/</u>
- Breakout Box Challenge Challenge your students to learn more about corn using a breakout box. A breakout box challenge is available for each grade level, K-5 and is a great way to also assess learning. Challenges are available online or for physical breakout boxes. Check out the challenges at <a href="https://kscorn.com/topic/breakout-box/">https://kscorn.com/topic/</a> breakout-box/
- **Guest Speaker** Request a guest speaker to visit the classroom and expand learning about ethanol and corn. <u>https://kscorn.com/guestspeaker/</u>