MYSTERY #2

THE HISTORY OF CORN

Middle School Teacher Guide

KANSAS CORN STEM

This teacher guide is broken into different sections with suggestions of how to use the reader in the classroom and provides ideas on how to extend the learning for 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 you can use to share the videos in alternative ways.

- History of Corn: https://bit.ly/3MjwGRY
- Biotechnology Experts: https://bit.ly/3yv1M3a
- Importance of GMOs to Farmers: https://bit.ly/3rHqlpY
- Get to know GMO Seed Improvement: https://bit.ly/3T619Vy
- Glass Gem Corn: https://bit.ly/3rIstO7

Vocabulary Words

There are eight vocabulary words to be found throughout the reader. They are bold with a small explanation to help define the word. Print the vocabulary worksheet part 1 and 2. Students can use the worksheet to learn more about the words that will be used throughout the reader.

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Focusing on the history of corn, students will learn that corn originates from a grass grown in Mesoamerica.

- Have students compare and contrast teosinte to modern corn using the Venn diagram in the reader.
- Students will read how corn was ground and used by many Native cultures and see a photo from the cliff dwelling of peoples of Mesa Verde. To expand learning you can have students conduct research on various agriculture practices for this area. For instance, crops were grown on the tops of the mesa so they could receive water from rainfall.
- Further research can be done about Mesa Verde as part of the social studies connections.
- Corn facts could be used to make a math connection on measurements.

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- Genetically modified organisms (GMOs) are a big part of the history of corn. This topic gives students the opportunity to learn what a GMO is while working on their writing skills.
- Students will start to get an idea of what a GMO is and keep expanding on that knowledge throughout the page. Have students watch the "Importance of GMOs to Farmers" video to learn more about why GMOs are important.
- Students can explore many important careers that help with the advancement of corn and other crops. Have students explore biotechnology careers with the provided QR code. Note that the website allows you to load more careers besides those found on the bottom of the first page. You could have students report on careers they found or turn this into a writing assignment.
- Have students complete the GMO activity. It will help students understand what genetically modified foods are, especially corn, and how and why they were created.
- Students will learn to use appropriate vocabulary to identify and construct an argument for the benefits and potential cons of genetically modified foods.
- Students will root their C.E.R writing and arguments with evidence using various resources in the activity sheet.
- Optional: Have students use this link provided by the Smithsonian in 2020 for corn history. https://s.si.edu/3CqWjvs

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- The Corn Science Investigation continues the discussion about genetic modifications and selective breeding strategies for many different foods. In this activity students will learn more about "Cherokee Glass Gem Corn."
- The video will help the students learn more about glass gem corn from someone who raises that type of corn.
- Students will use pipettes and other lab materials to practice the idea of choosing desired traits: color, drop size, etc. while creating their own glass gem cob art.
- You can have students learn more about glass gem corn as this link https://bit.ly/4oXsBWk