

Colorado Reader

Educator Guide to Accompany the Colorado Reader

POTATO PROUD: COLORADO GROWS GREATNESS

Purpose: This issue of the Colorado Reader introduces students to the science, geography, and nutrition of Colorado-grown potatoes. Through engaging nonfiction text, hands-on activities, and cross-curricular connections, students explore how potatoes grow, where they are produced, how they fit into a healthy diet, and the role they play in Colorado agriculture. The Reader is designed to support classroom learning in alignment with Colorado Academic Standards while sparking curiosity about where our food comes from.

Colorado Academic Standards: This cross-curricular educational resource will meet the following standards through the text and various activities. Each activity is designed to align with the relevant grade-level expectations for reading comprehension, science, social studies, comprehensive health, and mathematics.

READING, WRITING, AND COMMUNICATING Grades 3-5

- RW.3–5.2.1 – Reading for all purposes: Read literary and informational texts to understand central ideas, summarize key details, and explain concepts.
- RW.3–5.3.1 – Writing for all purposes: Write narratives and informational pieces using correct structure, purpose, and vocabulary.
- RW.3–5.4.2 – Research and reasoning: Use evidence to explain thinking and answer questions.

SCIENCE

3rd Grade: Life Science

- SC.3.2.2 – Organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.

4th Grade: Life Science

- SC.4.2.1 – Organisms have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.

5th Grade: Life Science

- SC.5.2.1 – Organisms interact with their environment and each other.

SOCIAL STUDIES

3rd Grade: Geography

- SS.3.2.1 – Use geographic tools to identify and locate places and regions in the United States.

4th Grade: History and Geography

- SS.4.1.1 – Organize and sequence events to understand the chronology of Colorado history.
- SS.4.2.1 – Use geographic tools to research and answer questions about Colorado geography.

COMPREHENSIVE HEALTH

3rd-5th Grade: Nutrition

- CH.3–5.2.1 – Describe the benefits of eating a variety of foods from all food groups.
- CH.3–5.2.2 – Use MyPlate to plan meals.

MATHEMATICS

3rd-5th Grade: Data and Measurement

- MA.3–5.DA.1 – Represent and interpret data.

How to use: Use this *Colorado Reader* during your reading, social studies, or science. Another option is to send these items home with students (or include in homework/enrichment packets) to complete at home on virtual learning days. Or use during substitute days. Pass out one copy of the *Colorado Reader* to each student. Ask students to read the *Colorado Reader*, completing the activities within the *Reader* as they go. Answers to the activities in the *Reader* are included, should you desire to collect and score responses. To further enhance learning, incorporate any of the additional lessons from the Curriculum Matrix that are identified on the back.

Vocabulary: Reviewing these terms will help students better understand the material and enhance their learning experience as they explore the world of Colorado potatoes.

asexual reproduction – when a plant grows from a piece of another plant

complex carbohydrates – the good kind of carbs that give long-lasting energy

dormancy – a resting period when potatoes are stored and not growing

fiber – helps your body digest food and stay healthy

flowers – the part of the plant that can turn into fruit or seeds

harvest – the process of gathering crops when they are ready

irrigation – a way to water crops using special systems or tools

leaves – green parts that collect sunlight and make food for the plant

photosynthesis – the process plants use to turn sunlight into energy

potassium – a nutrient that helps your muscles and heart

roots – parts of the plant that absorb water and nutrients from the soil

San Luis Valley – a major potato-growing region in southern Colorado

seed potato – a potato or piece of a potato planted to grow a new plant

sprout – a new shoot growing from a seed or potato eye

starchy vegetable – vegetables high in carbohydrates like potatoes and corn

stem – the part that holds the plant upright and moves water and nutrients

tuber – the underground stem that stores nutrients (what we eat!)

vitamin C – a nutrient that helps your immune system and healing

volcanic soil – rich, fertile soil formed from volcanic ash and rocks

Lesson Plans to go with this Reader: The Agricultural Literacy Curriculum Matrix is an online, searchable, and standards-based database for K-12 teachers. The Matrix contextualizes national education standards in science, social studies, and nutritional education with relevant instructional resources linked to Common Core Standards. Below are a few lesson plans that could be used in conjunction with this *Colorado Reader*. Find these lessons and more by searching the key words on the Curriculum Matrix at CoAgClassroom.org.

Potatoes: More Than Fries - Students investigate potato varieties, explore potato plants, determine how potatoes grow, and make a potato recipe. Grades K-2

Powerful Potato - Students observe a potato grow with and without soil, chart potato geography on a world map, and hold a potato dress up contest. Grades 3-5

Potatoes for Pirate Pearl - Join Pirate Pearl and her parrot Petunia as they learn how potatoes are planted, grown, and harvested in this hilarious picture book about food and friendship. Pirate Pearl and her parrot Petunia are HUNGRY, and after they make the hardtack biscuits walk the plank, they go in search of a perfect provision for their next sea voyage. Where do they end up? On Farmer Fay's potato farm! Farmer Fay shows Pirate Pearl how potatoes grow on the farm and how potatoes can be cooked into many different delicious potato recipes. Pirate Pearl and Petunia not only gain an understanding of farming but also a new friendship with Farmer Fay! Back matter is packed with potato facts, information on growing your own potatoes, and recipes. Book

Answers:

Page 3: Potato Plant Diagram

1. Stem; 2. Leaves; 3. Flowers; 4. Tubers; 5. Roots

Page 3: Check Your Spud Smarts

1. A seed potato is a piece of a potato with 'eyes' that can grow into a new plant. Unlike regular seeds, it's a part of the plant, not from a flower.
2. C. Underground as tubers
3. Farmers wait for the plant to turn yellow because it means the tubers are mature and ready to harvest.
4. Sunlight, water, nutrients, and healthy soil.

Page 5: Spud Stats!

1. Idaho
2. 123.8 million cwt (145.0 - 21.2)
3. Michigan and Minnesota (very close in production)
4. Bottom five states = 94.2 million cwt; Idaho = 145.0 million cwt; Less than Idaho

Page 5: Potato Vocabulary Word Scramble

1. Stem; 2. Tuber; 3. Photosynthesis; 4. Dormancy; 5. Sprout; 6. Fiber; 7. Leaves; 8. Potassium; 9. Harvest; 10, San Luis Valley

Page 6: Types of Potatoes Matching

1. Fresh Table-Stock; 2. Chipping; 3. Frozen; 4. Dehydrated; 5. Seed Potatoes

Page 7: Power Plate Activity

Answers will vary. Should include one food from each MyPlate group and a healthy preparation of potatoes (e.g., baked, roasted).