



Lesson 4: Carbs Give Us Energy to Move!

Grade Level: 2nd Grade

Time: 60 minutes

Subjects: ELA, Agriculture

Overview: This lesson is Lesson 4 of 5 in the *Growing Up Strong* unit within the *Growing Readers* micro-curriculum, based on a series of books written by Kansas author Dan Yunk. Building on Lesson 3's focus on protein, this lesson introduces carbohydrates as a nutrient that helps provide energy for the body. Students watch a short video about carbohydrates and explore how foods made from grain crops like wheat, oats, and corn connect agriculture to the foods they eat. Students distinguish shades of meaning among verbs that describe eating and moving, then learn how adverbs describe actions. The lesson concludes with reading and writing activities in which students connect carbohydrate-rich foods, movement verbs, and adverbs in complete sentences.

Skillset: Gathering information from a video source, distinguishing shades of meaning among verbs, using adverbs to describe verbs, reading with accuracy and fluency, physical movement connected to reading, and recalling information from experience.

Kansas Academic Standards

Kansas ELA Standards

RF.2.3 Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

RF.2.4 Read with sufficient accuracy and fluency to support comprehension.

RI.2.12.b Distinguish shades of meaning among closely related verbs and closely related adjectives. (*This lesson addresses only verbs; adjectives are not addressed.*)

W.2.8 Recall information from experiences or gather information from provided sources to answer a question.

W.2.10.e Use adjectives and adverbs and choose between them depending on what is to be modified. (*This lesson focuses only on adverbs; adjectives were addressed in Lesson 3.*)

National Agriculture Literacy Outcomes

Plants and Animals for Food, Fiber, and Energy

T2.K-2.d Identify examples of food and fiber products that come from plants and animals.

Agriculture and the Environment

T3.K-2.b Recognize that agriculture provides our most basic necessities: food, fiber, energy, and shelter.

Objectives

English Language Arts Objectives

Students will be able to:

- Gather information from a video about how carbohydrates help provide energy for the body.
- Distinguish shades of meaning among verbs describing eating and moving in different ways.
- Read decodable sentences with sufficient accuracy and fluency to support understanding.
- Use adverbs to describe how an action happens.
- Recall information from the video and movement activity to support their writing.

Agriculture Objectives

Students will be able to:

- Explain that carbohydrates give the body energy and are found in grain foods.
- Identify that carbohydrate-rich foods like wheat, oats, and corn are crops grown by farmers.

Materials Needed

Whole Class:

- Smartboard or display screen
- YouTube, Eat Happy Project: How do carbohydrates give us energy?
<https://youtu.be/Xto8ZqCYDvY>
- Chart paper titled: “Carbs Give Us Energy!”
- Markers

Shades of Meaning & Movement Cards:

- Word cards for eating verbs: nibble, munch, gobble (one set for whole-group display)
- Word cards for moving verbs: walk, march, stomp, tiptoe (one set for whole-group display)
- Decodable sentence cards pairing a carb food, a movement verb, and an adverb (companion document)
- Grain/carb food picture cards: wheat, oats, corn, bread, toast (one set for whole-group display)
- Open floor space for movement

Writing:

- Carbs Give Me Energy writing sheet — companion document with blank lines for students to write their own complete sentences (one per student)
- Pencils and crayons

Lesson Procedures

1. Connecting to What We Know. Explain to students: “In one of our very first units, we read a book called *Celebrate Wheat*. Do you remember what Kailey learned about wheat? Kansas farmers grow huge fields of wheat, and that wheat gets turned into flour, which is used to make foods like bread and pizza crust.”
 - a. Ask students:
 - “What do you remember about wheat and the foods it helps make?”
 - “If you live out in the country, have you ever seen a big golden field of wheat? What did it look like?”
 - “If you live in a town or city, have you eaten bread, crackers, or pizza crust made from wheat? Where did you get it?”
 - b. Explain to students: “In our last lesson, we learned about protein and how it helps our muscles grow strong. Today we are going to learn about a nutrient that gives

our bodies something else important: energy. Wheat is actually one of these foods! Carbohydrates, or carbs for short, are a nutrient found in many foods that help give our bodies energy.”

- c. Ask students:
 - “What do you do during the day that takes a lot of energy? Running? Playing? Even just paying attention in class takes energy!”
 - “Where do you think your body gets that energy from?”
 - “What foods contain carbohydrates, and what do carbohydrates help our bodies do?”
- d. Direct students: “Let’s watch a short video to find out what carbohydrates are and where they come from.”
2. YouTube Video — Play a short video. Eat Happy Project: How do carbohydrates give us energy? <https://youtu.be/Xto8ZqCYDvY>
 - a. After the video, ask students the following questions. Record student responses on chart paper: “Carbs Give Us Energy!” Guide students toward a simple list such as bread, wheat, oats, and corn. This chart will be referenced again during the writing component at the end of the lesson.:
 - “The video said carbs are like fuel for our bodies. What does fuel mean? What does fuel do for a car?”
 - “What foods did the video mention that have carbs in them? Can you name one?”
 - “The video said carbs help us do things like run, pay attention, and even breathe. Which of those things have you done today?”
 - b. Explain to students: “The video just showed us that carb energy shows up in two moments: the moment we eat the food, and every moment after that when we use the energy to move. Let’s learn some new action words, or verbs, that describe both of those moments, and then we will get to use our own carb energy to try them out.”
3. Shades of Meaning: Eating and Moving Verbs. Explain to students: “Carbs like bread, cereal, pasta, and potatoes give our bodies energy. But even the way we eat can be described with different action words, or verbs, that mean slightly different things. Let’s learn three verbs that all mean eating, but each one is a little different.”
 - a. Teach each eating verb by defining it and modeling a small gesture:
 - “Nibble means to take small, slow, gentle bites. A mouse nibbles a piece of cheese.” (Mime tiny, careful bites.)
 - “Munch means to chew steadily, taking one bite after another. A cow munches on grass in a field.” (Mime regular chewing.)
 - “Gobble means to eat something quickly, in big bites. A hungry dog gobbles its food.” (Mime fast, big bites.)
 - b. Ask students:
 - “Which of these three words means eating the fastest? Which means eating the slowest and gentlest?”
 - “Show me how you would nibble a cracker. Now show me how you would gobble it.”
 - c. Bridge to moving verbs. Explain to students: “Nibble, munch, and gobble describe the moment we eat. But once that food gives us energy, we do not just sit still; we move! Let’s learn some verbs for moving too.”
 - Teach each moving verb by defining it and having students act it out immediately:

- “Walk means to move at a normal, steady pace. Let’s walk in place.”
 - “March means to step strongly with high and stiff steps, like in a parade. Let’s march in place.”
 - “Stomp means to step down hard and loud. Let’s stomp in place.”
 - “Tiptoe means to step light and quiet, so no one hears you. Let’s tiptoe in place.”
- d. Ask students:
- “Which of these four ways of moving is the loudest? Which is the quietest?”
 - How is marching different from walking?
 - “Of all seven of our new verbs, which one would you use if you were really hungry and eating fast? Which one would you use if you were trying to be sneaky and quiet?”
- e. Explain to students: “All seven of these verbs, from nibbling a cracker to stomping across the room, take energy. That energy can come from carbs. Choosing a verb like nibble instead of gobble, or stomp instead of walk, is one way to show exactly how something happens. Writers have other tools to help the readers picture what is happening. Adjectives describe nouns, like the word ‘crunchy’ in ‘crunchy cereal. Adverbs describe actions, like the word ‘loudly’ in ‘stomp loudly.’ We are going to learn more about adverbs right now.”
4. Adverbs – Describing How We Move. Explain to students: “We just learned that choosing a very specific verb, like stomp instead of walk, can show how something happens. There is another tool writers use to show how something happens: a word called an adverb.”
- a. Explain adverbs: “An adverb describes a verb, an action word. It tells us more about how, when, or where that action happens. Many adverbs end in -ly.”
- Model contrasting examples:
 - “I can walk. I can walk quickly. Quickly is an adverb. It tells us more about how I am walking.”
 - “I can march. I can march proudly. Proudly is an adverb. It tells us more about how I am marching.”
- b. Ask students:
- “What adverb did I add to walk?”
 - “What does quickly tell us about the walking?”
 - What happens to the meaning of the sentence when I add quickly?
- c. Model two more examples: “I can stomp loudly. I can tiptoe quietly.”
- d. Ask students:
- “Can you think of an adverb to describe how you might nibble a cracker?”
 - “Or how you might gobble your food?”
- e. Explain to students: “Now that we know adverbs, let’s use them when we read about carb foods and act out our movements.”
5. Reading About Carb Foods and Using Our Energy. Explain to students: “Carbohydrates in foods help give our bodies energy for many kinds of movement. We are going to read short sentences that pair a carb food with a movement verb and an adverb. Let’s read them with accuracy and fluency, and then act each one out.”
- a. Model one full example. Display a decodable sentence card: “I eat bread. I can walk quickly.” Read the sentence aloud smoothly, then think aloud about its parts:

- “I eat bread. I can walk quickly. Bread is my carb food, walk is my verb, and quickly is my adverb telling us how I am walking.”
- b. Explain to students: “Bread is a carb food made from wheat, a grain that farmers grow. Eating bread gives me the energy to walk quickly. Let’s do it: everybody walk quickly in place!”
 - Lead students in performing the movement (walking quickly in place) for 5–10 seconds.
 - c. Display each remaining decodable sentence card one at a time. Read together with fluency, briefly discuss the food’s agricultural source, then lead the movement. After each sentence and movement, ask: “Where did that carb food come from? A farmer grew it! What adverb did we use, and what did it tell us about the movement?”
 - “I eat oats. I can march proudly.” “Oats are a grain crop that farmers grow. Let’s march proudly!”
 - “I eat corn. I can stomp loudly.” “Corn is one of the biggest crops Kansas farmers grow. Let’s stomp loudly!”
 - “I eat toast. I can tiptoe quietly.” “Toast is made from wheat, just like the bread we talked about earlier. Let’s tiptoe quietly!”

(Allow approximately 8–10 minutes for this movement activity. Keep the pace brisk and playful: read, discuss briefly, move, repeat.)
6. Writing About Carbs, Movement, and How We Move. Gather students where they can see chart paper clearly.
- a. Explain to students: “We just used a lot of energy moving our bodies! Now let’s capture what we did in writing, just like a scientist recording what happened in an experiment. In a few minutes, you will write your own sentences about your favorite carb food, movement, and adverb. Watch me write my own sentences on our chart paper first. You will use your own words to write your sentences, but you can look back at mine if you need a reminder of how a sentence like this can look.”
 - Write a complete model sentence on chart paper, thinking aloud: “I eat corn. I can stomp loudly. I recalled corn from our chart today, stomp from our shades-of-meaning verbs, and loudly to tell my reader exactly how I am stomping.”
 - Read the completed sentence aloud together, tracking each word with your finger: “I eat corn. I can stomp loudly.”
 - b. Ask students:
 - “Which carb food will you write about?”
 - Which shades-of-meaning verb will you choose?
 - Which adverb will you add to tell us how?”
7. Independent Writing — Carbs Give Me Energy Writing Sheet. Distribute the Carbs Give Me Energy writing sheet.
- a. Explain to students: “Choose your favorite carb food, movement, and adverb from today. Write your own complete sentences on your paper, the same way I wrote mine on our chart paper. You can look back at our chart paper anytime you need to. Think about how carbohydrate-rich food helps provide energy for movement.” Students write their own sentences independently on the blank lines provided, choosing their own carb food, verb, and adverb. Circulate and support:

- Prompt for content: “Which carb food are you writing about? Which shades-of-meaning verb gives that energy a job to do? Which adverb tells us how?”
 - Support for spelling: “Say the word slowly. What sounds do you hear? Write the letters that match.”
- b. On the bottom of the sheet, include a bonus question: “Can you show a friend a different shade-of-meaning verb or adverb from our list today?”
(Differentiation: Students who need additional support may use a two-sentence frame, such as “I eat _____. I can _____,” to help structure their sentences while still writing independently. Students ready for a challenge can write a second sentence using a different carb food, verb, and adverb.)
8. Closing Discussion and Kansas Connection. Gather students together with their completed writing sheets.
- a. Ask students:
 - “What did we learn that carbs give our bodies?”
 - “What carb food, movement, and adverb did you write about? Why did you choose that adverb?”
 - b. Kansas Connection. Explain to students: “Kansas is one of the biggest wheat-growing states in the whole country, and Kansas farmers also grow huge amounts of corn every year. Whether you live out in the country and have seen fields of wheat or corn stretching for miles, or you live in a town or city and mostly see bread and cereal at the grocery store, the carbs that give you energy to move started as a crop on a farm.”
 - c. Ask students:
 - “If you live in the country, have you ever seen a field of wheat or corn? What did it look like?”
 - “If you live in a town or city, what carb foods have you seen at the grocery store or eaten at a restaurant?”
 - “What carb food will you look for the next time you eat a meal?”

Assessment: Assess student understanding through teacher observation during the video discussion, shades-of-meaning verb instruction, adverb instruction, decodable sentence reading, movement activity, shared writing, and independent writing. The teacher should note whether students can distinguish shades of meaning among verbs describing eating and moving in different ways, read decodable sentences with sufficient accuracy and fluency to support understanding, use adverbs to describe how an action happens, and recall information from the video and movement activity to support their writing. The completed Carbs Give Me Energy writing sheet, with students’ own complete sentences, serves as the primary written artifact for this lesson.

Supplemental Activities: Display the completed writing sheets alongside the “*Carbs Give Us Energy!*” chart and the Protein Match writing sheets from Lesson 3. Guide students to see that a healthy, energetic body needs both protein and carbohydrates, and that both come from crops and animals raised by farmers and ranchers. For an extension activity, place the shades-of-meaning verb cards and decodable sentence cards in a classroom movement center so students can continue practicing throughout the week, and challenge students to add a new adverb to each movement verb as they review the cards.

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Shades of Meaning

Eating

nibble

munch

gobble

Moving

walk

march

stomp

tiptoe

Carbohydrate Picture Cards



Wheat



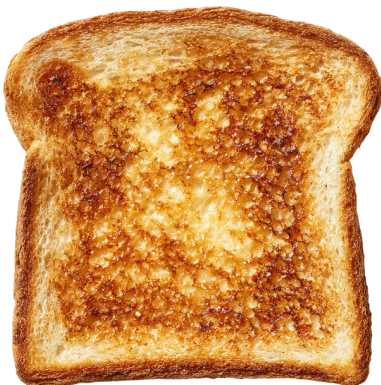
Oats



Corn



Bread



Toast

Decodable Sentence Cards

I eat bread.

I can walk quickly.

I eat oats.

I can march proudly.

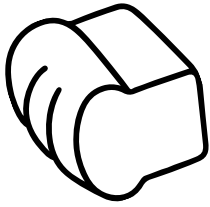
I eat corn.

I can stomp loudly.

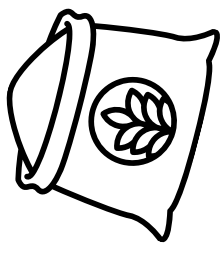
I eat toast.

I can tiptoe quietly.

Student Name: _____



Carbs Give Me Energy!



Check your work!

☐ I have an adverb. ☐ I have a verb. ☐ I have a food noun. ☐ I have complete sentences.

Can you show a friend a different shade-of-meaning verb or adverb from our list today?