

Teacher's Supplement



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Teachers' Guide for *CLICK: Fire! Fire!*

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OVERVIEW

*In this magazine, readers will learn all about fire. **Click: Fire! Fire!** includes information about what fire is, what its' benefits are*

and when it is a threat faced by skilled firefighters.

ESSENTIAL QUESTION:

How is fire beneficial and destructive and what is important about a firefighter's job?



READ MULTIPLE ARTICLES PAGES 4 - 10

Each article in this magazine is well-suited for teaching Common Core literacy concepts and content area knowledge. For each individual article page in this guide, you'll find the following:

Essential Question

Content Concepts
Next Generation Science Standards

Key Vocabulary
CCSS.Reading.4

Prepare to Read
CCSS.SpeakListen.1, 2, 4

Close Reading Questions
CCSS.Reading.1-10

Common Core Connections to teach reading and writing standards.
CCSS.Writing.1, 2, 3 & 6

ARTICLE: What's Mine Is Yours
Magazine pages 9-12: Narrative Nonfiction

This article will take you into the world of medical science by telling true facts about the fascinating practice of transplanting organs. About the various types of transplants currently available and discuss what new procedures are proposed for the future.

ESSENTIAL QUESTION
What factors contribute to the development of healthier and more efficient human bodies?

SCIENCE CONCEPT
Medical advancements are making it possible to create stronger, sturdier and enhance the human form.

CROSS-CURRICULAR EXTENSION
Science and Math

KEY VOCABULARY
Transplant (p. 9) able to be moved from one place to another.
Organ (p. 10) a part of the body that has a specific function.
Transplant (p. 10) a part of the body that is moved from one place to another.
Transplant (p. 10) a part of the body that is moved from one place to another.

PREPARE TO READ
Engage the students in discussion to determine what knowledge they have about organ transplants. Discuss the role of science, health and medicine in the article. Ask for complete oral participation.

CLOSE READING QUESTIONS

- Why are organ transplants of such high importance in the medical community?
- Why are they considered for the general public?
- On page 10 of the article, the writer states, "transplants bring new life to the heart of a heartless man who would have been a patient." Why do you think that the writer chose to use such a personal appearing statement in that paragraph?
- Why do you feel that the genre of science fiction overlaps with these stories of growing medical transplants?

COMMON CORE CONNECTIONS

Research-Based Writing *CCSS.Writing.2.6*
Learn how to read and write effectively by using the material in the library. Check out the history of such procedures, as well as the most current procedures.

Opinion Writing *CCSS.Writing.1.6*
Do you feel that there are moral/ethical issues to consider in the future? Be specific when presenting your viewpoint and concerns.

Analyze Text Structure *CCSS.Writing.1.6*
To support research in this article the writer you imagine a scenario in the future. Locate these passages and explain why they are effective in engaging the reader.

MUSE: Bodies...The Inside Story // October, 2015

Magazine articles can be easily grouped to make cross text connections and comparisons. Our Common Core mini-unit guides students to read and discuss multiple articles and integrate ideas and information. (CCSS.Reading.InfoText.9) Discussing multiple articles (CCSS.Speak.Listen.1, 2, 4) prepares students to write informational texts to share and publish in a variety of ways. (CCSS.Writing.2)

READING

Core literacy concepts, such as the ones found in the Common Core State Standards, help students access social studies and science content. Integration of both literacy thinking and content study offers students a great way to become experts in reading informational text and literature for content knowledge. This guide provides questions to cover many core literacy concepts.

Draw Inferences (CCSS.InfoText.1)

Describe Relationships (CCSS.InfoText.3)

Analyze Text Structure (CCSS.InfoText.5)

Interpret Visual Information (CCSS.InfoText.7)

Summarize (CCSS.InfoText.2)

Determine Word Meaning (CCSS.InfoText.4)

Understand Author's Point of View (CCSS.InfoText.6)

Explain Reasons and Evidence (CCSS.InfoText.8)

FOCUS STANDARD: CCSS. InfoText 9: Integrate Ideas and Information:

Have students read multiple articles from this magazine on the same topic, build knowledge, and make cross-text comparisons.

SPEAKING AND LISTENING

Use the articles in this magazine to spark meaningful discussions in person and online. Encourage deeper discussions where students can become topic experts. (CCSS.SpeakListen.1, 2, 4)

DISCUSSION OPTIONS—IN CLASS OR ONLINE

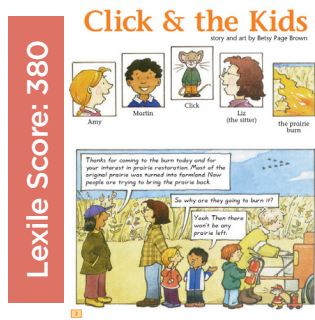
Article Clubs: Form small reading groups of students reading the same article. Have students discuss the content, share ideas, and critically evaluate the text.

Jigsaw Clubs: Form small reading groups of students reading *different* articles. Invite students to share information and resources with each other.

Whole Class: Launch with an essential question. Encourage students to find and share evidence from different articles building a greater understanding of the question.

WRITING

Use the articles in this magazine to prompt **informative/explanatory writing** (CCSS.Writing.2). Have students use evidence from the texts to share information about social studies, language arts, or science content in the articles. See the **Mini-Unit** section of this guide (pages 12 – 14) as well as the **article pages** (pages 4 – 10) for ways to incorporate writing into your instruction.



Amy and Martin find out about prairie restoration. As they learn about a prairie burn, you will see how fire helps make a better place for prairie plants and animals to live and grow.

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

There are many different kinds of living things in any ecosystem.

CROSS-CURRICULAR EXTENSION

Science

Do research to find out where prairies are located and what kind of plants and animals live there.

KEY VOCABULARY

bouquet (p. 4) a group of flowers that are picked and often tied together

burn (p. 2) a mark on the surface of an area caused by a flame or fire

prairie (p. 2) a large, mostly flat area of land in North America that has few trees and is covered in grasses

restoration (p. 2) the act or process of returning something to its original condition

PREPARE TO READ

Explain that a prairie burn is a way to help a prairie. Have students point to the drawings of the prairie before, during, and after the burn. Ask: *What do you notice about the prairie? What colors do you see? What kinds of plants and animals do you see? What are they doing?*

CLOSE READING QUESTIONS

- What kind of text is this? How do you know? What other texts have you seen that are set up the same way?
- Describe some things that happen first, next, and last in the process of restoring a prairie. Use the text to help you.
- How are animals protected in a prairie burn? What reason is given for why the fire won't hurt the prairie plants? Go back to the text to check your answer.

COMMON CORE CONNECTIONS

Key Details *CCSS Info Text 1*

What kind of prairie plants will the fire destroy? Why is this helpful?

Discuss Relationships *CCSS Info Text 3*

What is the connection or relationship between what you notice in the drawings of the prairie before and after the burn? What do you notice about the wildlife? How has the fire made a change for the better?

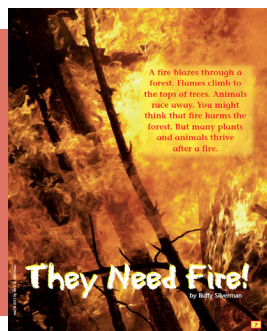
Author's Purpose *CCSS Info Text 6*

What is the main purpose of this article? What is the author explaining and describing to you, the reader? Give examples of what you learned from the reading.

ARTICLE: They Need Fire

Magazine page 7, Informational Text

Lexile Score: 820



Did you know that some plants and animals need fire to live? In this article, you will learn how a plant needs fire for its seeds to grow and how animals need fire for food and their young.

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs.

CROSS-CURRICULAR EXTENSION

Art

Draw or trace and label one of the close-up photos on pages 8 and 9 of the magazine. Write a fact about the subject of your drawing.

KEY VOCABULARY

burrow (p. 9) to make a hole or tunnel by digging

destroys (p. 8) to cause (something) to end or no longer exist

poison (p. 8) a substance that can cause people or animals to die or to become very sick if it gets into their bodies

sooty (p. 9) a black powder that is formed when something (such as wood or coal) is burned

thrive (p. 7) to grow or develop successfully

PREPARE TO READ

Have students do a picture walk of the article. Ask students to identify each of the close-up photos on pages 8 and 9 of the magazine. *Ask: What are the names of these living things?* Talk about how the colored text helps identify the main subjects in this article.

CLOSE READING QUESTIONS

- What effect does the heat of fire have on jack pine tree cones? Use the article to help you.
- What text feature helps you figure out the names of the plants and animals that need fire?
- Find the word in the article that describes the tongue of the black-backed woodpecker.

COMMON CORE CONNECTIONS

Draw Conclusions *CCSS Info Text 1*

How would you describe the Jack pine tree? Weak? Hardy? Use evidence from the article.

Describe Relationships *CCSS Info Text 3*

In this article, the author discusses how certain animals need specific plants to survive. What is the connection or relationship between the Kirtland's warbler and the jack pine tree?

Summarize Main Ideas *CCSS Info Text 2*

This article gives information about plants and animals that need fire to survive. Reread the text looking for the main ideas for each plant or animal discussed. Share a summary of the article with a partner. Help one another focus on the main ideas when you summarize.

ARTICLE: What is Fire?

Magazine page 10, Informational Text



Fuel, oxygen, and water make fire. With a grownup, the kids in the article learn about fire and how to put it out, just like firefighters!

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

Heating or cooling a substance may cause changes that can be observed.

CROSS-CURRICULAR EXTENSION

Science

Friction is the act of rubbing one thing against another. You use friction when you unscrew the lid of a jar. Take away the friction and you can't open the jar. See for yourself. Squirt a little liquid soap on your hand and try to open a jar. You can't do it! The slippery soap has reduced, or lessened, the friction.

KEY VOCABULARY

fuel (p. 10) a material that is burned (such as coal, oil, or gas) to produce heat or power

heat (p. 10) energy that causes things to become warmer

oxygen (p. 10) a chemical that is found in the air, that has no color, taste, or smell, and that is necessary for life

PREPARE TO READ

Have students find four examples of fire in the illustration on page 10 of the article. *Ask: What is the fire being used for in each of these examples? Have you and your family used fire in these ways?* Build background by discussing how students and their families have used fire.

CLOSE READING QUESTIONS

- How is the set-up of this text similar to the set-up of text in "Click & the Kids"? What do you notice about it? How does it help you as a reader?
- Using clues from the text, find the meaning of fuel and give two examples of fuel.
- What is the effect of taking away fuel, oxygen, or heat from fire? Use information in the article to help you.

COMMON CORE CONNECTIONS

Analyze Text Structure *CCSS Info Text 5*

Notice how the text uses colored words. What words are colored? How does this formatting help you as a reader? How does it help you find important information?

Interpret Visual Information *CCSS Info Text 7*

How do the illustrations on pages 12 and 13 help you understand different ways to put out a fire?

Narrative Writing *CCSS Writing 3 & 6*

Imagine you are a firefighter. Write about putting out a fire. Talk about the way you have chosen to put the fire out and why.



Read about what it is like to be a firefighter. Learn how firefighters get dressed quickly, how they stay strong and fit, and about what they do when they are not fighting fires.

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

Humans can cause change within their natural environment.

Things that people do to live comfortably affect the world around them.

CROSS-CURRICULAR EXTENSION

Math

If firefighter Greg can get dressed in one minute, how many seconds is that? How many seconds are there in half a minute?

KEY VOCABULARY

equipment (p. 14) supplies or tools needed for a special purpose

helmet (p. 16) a hard hat that is worn to protect your head

protect (p. 16) to keep (someone or something) from being harmed

stowed (p. 17) put (something that is not being used) in a place where it is available, where it can be kept safely, etc.

PREPARE TO READ

Have students do a picture walk of the article. Ask students to find and point to firefighter clothing and gear. Ask: *What do you notice about what a firefighter wears? Have you seen a firefighter before? How do you think it would feel to wear firefighter gear?*

CLOSE READING QUESTIONS

- What time order words describe the steps it takes for firefighter Greg to get dressed? Find them in the text and point to them with a partner.
- How do the photos with captions help you as a reader?
- What does a “home away from home” mean to a firefighter? Use the text to help support your answer.

COMMON CORE CONNECTIONS

Key Ideas and Details *CCSS Info Text 1*

What is the first thing firefighter Greg needs to do to get dressed? What helps him save time when he is putting on his boots?

Draw Conclusions *CCSS Info Text 1*

What does a firefighter stow in the truck while he's driving? Why do you think it is hard to drive with these pieces of equipment on? Use the pictures and words in the text to help you.

Opinion Writing *CCSS Writing 3 & 6*

Choose a detail from the article about daily life as a firefighter. Would you enjoy to be a firefighter? Why or why not?



Find out about the different trucks firefighters use and the equipment they need to do their job.

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

Humans rely on natural resources in their environment.

CROSS-CURRICULAR EXTENSION

Careers

Find out what a paramedic does and what training you would need to become one.

KEY VOCABULARY

assigned (p. 21) gave out something

patient (p. 22) a person who receives medical care or treatment

stretcher (p. 22) a device that is made of a long piece of thick cloth stretched between two poles and that is used for carrying an injured person

PREPARE TO READ

Build background by asking students what they know about ambulances and ladder trucks. Ask: *What do they look like? Sound like? What equipment do these trucks use? Have students use the photographs in the article to guide their answers.*

CLOSE READING QUESTIONS

- What do you notice about how this article is set up? How is it similar to “Meet Firefighter Greg”? How is it different? Look over the articles to find your answers.
- What is the effect, or the result, of each fire truck seat having a specific job to go with it? Look back in the article to find your answer.
- With a partner find, each of the items found in ambulance cabinets. Point to each of the words as you say them.

COMMON CORE CONNECTIONS

Interpret Visual Information *CCSS Info Text 7*

How do the photographs with their captions help you understand information about fire trucks?

Summarize Main Ideas *CCSS Text Info 2*

Talk with a partner about “Fire Trucks” to summarize the main ideas.

Determine Word Meaning *CCSS Text Info 4*

Using context clues, describe what outriggers do. Share your answers with a partner.

ARTICLE: Where are the Tools?

Magazine page 24, Narrative Nonfiction



Firefighters use a lot of tools in their job, and they need to be able to find them and use them quickly in an emergency. Read about the uses of the different tools firefighters need.

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

Pushes and pulls can have different strengths and directions.

CROSS-CURRICULAR EXTENSION

Science

A Halligan bar is a first-class lever when it is used to pry open a door. Find out what it means to be a first-, second-, and third-class lever and give examples of each.

KEY VOCABULARY

couplings (p. 25) a device that connects two parts or things

entangle (p. 24) to cause (something) to get caught in or twisted with something else

hydrant (p. 24) a pipe usually in the street that provides water especially for putting out fires

nozzle (p. 25) a short tube that is put on the end of a hose or pipe to control the way a liquid or gas flows out

PREPARE TO READ

Explain that firefighters use many tools to do their jobs and keep people safe. Have students look at the tools on pages 24 and 25 of the article. Ask: *What tools do you recognize? How do you think a firefighter uses each tool?*

CLOSE READING QUESTIONS

- How does the author organize ideas in this article? How do the text features, such as highlighted tool names, help you understand the article? Go back to the text to help you.
- What is a maul? Use details in the article to help you.
- How is this article similar to "Fire Trucks"? Look back at both articles to find similarities.

COMMON CORE CONNECTIONS

Interpret Visual Information *CCSS Info Text 7*

How do the photographs of firefighters' tools help you understand how hard it might be to be a firefighter?

Key Ideas and Details *CCSS Info Text 1*

Pick two or three firefighter tools. Discuss with a partner why each of the tools are important and why they need to be kept in the right place.

Narrative Writing *CCSS Writing 3 & 6*

Imagine you are a firefighter who has just gotten a call for an emergency, but you can't find the tools you need. Pick two tools you are trying to find and write about what they are and why you need them right away.

ARTICLE: Firefighter Mom

Magazine page 28, Narrative Fiction



In this story, meet a boy whose mother is a volunteer firefighter. Read about what life is like when Mom gets a call for an emergency.

ESSENTIAL QUESTION

How is fire beneficial and destructive and what is important about a firefighter's job?

SCIENCE CONCEPT

Humans use natural resources for everything they do.

Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time.

CROSS-CURRICULAR EXTENSION

Language Arts

Look through the text to find verbs, or action words. Find three that you like and take turns acting them out with a partner.

KEY VOCABULARY

dispatcher (p. 29) someone whose job is to talk by radio with people in vehicles (such as police cars, ambulances, or taxis) in order to send them to a particular place

pager (p. 28) a small electronic device that beeps or vibrates and shows a telephone number for the person carrying the device to call

PREPARE TO READ

Have students look at the illustrations on pages 31 and 32 of the article. Ask: *What do you notice about the vehicles in these illustrations? Do you notice familiar and different vehicles?* Have students predict what they think the fireboat is used for and read to find out.

CLOSE READING QUESTIONS

- Describe the setting of the story. Use examples from the illustrations and words in the text.
- How did the author use illustrations to keep your interest in the events in the story? What illustrations do you like the most? Why?
- Who is narrating this story? How do you know? Point out the words in the story that help you understand point of view.

COMMON CORE CONNECTIONS

Author's Point of View *CCSS Reading 6*

What is the main purpose of this story? What is the author trying to explain or describe to you, the reader?

Determine Word Meaning *CCSS Reading 4*

Using the clues in the text on page 31 of the article, describe what a *pumper* is and what a *tanker* does.

Narrative Writing *CCSS Writing 3 & 6*

Write about what happens when the boys go to the station and see the firetrucks close up. What equipment do they see? Describe Kevin's excitement to see the station

CROSS-TEXT CONNECTIONS WITH MULTIPLE ARTICLES

COMPARE ARTICLES

SYNTHESIZE: Guide students to compare articles they read. Help students find the connections between pieces of information in multiple texts. Use prompts, such as the following examples, to have students work together to **Integrate Ideas and Information** (CCSS.*Reading.9*):

- Make a two-column chart with the headings “Firefighter Vehicles” and “Firefighter Tools.” Use information in the articles to find the names of vehicles and tools and place them in the correct column. Compare your answers with a partner.
- Create a chart of the plants and animals described in the articles that need fire to survive. List the plants and animals and a fact about each.
- What is the time order, or sequence of events, that takes place after the fire alarm at the station rings or a firefighter gets a call that he or she is needed in an emergency? Use information from multiple articles as you write your sequence of events.
- List the variety of activities firefighters are involved in when they are not fighting fires. Use information from multiple articles to make your list. Circle the activities that you do, too. Underline the activities that you would like to do.
- Use a Venn diagram to show similarities and differences between Firefighter Greg and Firefighter Mom. Use information from the corresponding articles to help you make comparisons.

EXPLORATORY LEARNING - FLEXIBLE MINI-UNIT DESIGN

The Mini-Unit comprises three stages of activities. The Engage activity builds background knowledge. Read and Compare allows students to make connections between articles, and the Apply activity allows students to use their new knowledge.

ENGAGE

READ AND
COMPARE

APPLY

ENGAGE: Engage students in the topic of fire, what makes fire, the plants and animals that need fire to survive, and the firefighters who work to protect others from fire. Explore prior knowledge and engage curiosity by creating a question web like the one below. Add details and information to answer each question as you work through the unit.



Share the essential question:

Why is fire important and what is important about a firefighter's job?

READ AND COMPARE ARTICLES: Begin with a focus article as a base for building content knowledge and model how to work through the text.

1) READ ALOUD: Use “They Need Fire!” pages 7–9 as a focus article, or choose a different article that works well for your teaching goals. Share the article summary on page 5 of this guide. Students can read using their own copies of the article and sticky notes to mark places they find interesting or have questions about.

2) DISCUSS THE ARTICLE: After reading, guide students to turn and talk about the article. See the Article Pages for Close Reading Questions.

3) READ NEW ARTICLES: Help students choose additional articles to read based on their inquiry questions or what they wonder. Refer to the Article Pages for summaries of each article within *Fire! Fire!*

4) COMPARE ARTICLES: After students have read multiple articles, guide them to make cross-text connections. Refer to page 11 to Compare Texts using prompts that help students integrate ideas and information.

CHOOSE A PURPOSE FOR READING

CLOSE READ: *CCSS.Reading Info Text. 1* Mark the text, noting important details and highlighting what interests, surprises, or confuses you.

UNDERSTAND MAIN IDEAS TO DEVELOP EXPERTISE: *CCSS.Reading Info Text. 2* Record the main ideas in the article. Note how these main ideas build on the main ideas from the focus article or other readings. How is your topic knowledge growing?

REVIEW GRAPHIC FEATURES: *CCSS.Reading Info Text. 7* Review the graphic features in the articles and explain how the pictures help you understand the bold vocabulary words. You may want to use the Graphic Features printable on page 15.

APPLY: FIREFIGHTER MATCHING GAME

Use information in the articles to make cards for a matching game featuring firefighter gear, vehicles, and tools. Use the matching game graphic organizer to make your own cards. Through the match game, students test their memory and understanding of what it means to be a firefighter.

Materials: Index cards, pencil, crayons, matching game graphic organizer, scissors, glue sticks

Step 1: Gathering Ideas

With a partner look through multiple articles and make a list of 10 tools, gear, vehicles, or parts of vehicle used by firefighters.

Step 2: Recording ideas

Using the *Matching Game* graphic organizer, write the names of the items from your list, one on each name card. Draw and color a picture of that item on the corresponding picture card in the graphic organizer.

Step 3: Making Cards

Cut out all the cards from the graphic organizer and glue each one to an Index card.

Step 4: Playing the Game

To start, choose five sets of name/picture cards, setting the remaining five sets of cards aside. Shuffle the cards and place them face down on a table. Take turns by flipping over a card and trying to find its matching name or picture card. If you get a match, keep the pair and try to find another match. If you do not get a match, turn the cards back over and play goes to your partner. Play continues until all the pairs are matched. Add in more sets of cards to make the game more challenging.

Extension:

Include a description of the item on the name card instead of writing the name of the item. For example, instead of writing nozzle, write aims and controls the water flow.

NAME: _____

Mini-Unit Graphic Organizer

<hr/> Name Card	Picture Card
<hr/> Name Card	Picture Card
<hr/> Name Card	Picture Card
<hr/> Name Card	Picture Card
<hr/> Name Card	Picture Card

NAME: _____

ANALYZE GRAPHIC FEATURES

GRAPHIC FEATURE	PAGE LOCATION	HOW THIS FEATURE HELPED YOUR UNDERSTANDING

NAME: _____

CONCEPT CHART

Show how reading multiple articles developed your understanding of the essential question or or your own inquiry question.

ESSENTIAL QUESTION OR INQUIRY QUESTION:

ARTICLE 1:

ARTICLE 2:

ARTICLE 3:



Glossary

assigned gave out something

*Firefighters are often **assigned** a particular seat on their trucks. (p. 21)*

bouquet a group of flowers that are picked and often tied together

*Let's pick a **bouquet** for Liz before it's too late! (p. 4)*

burn a mark on the surface of an area caused by a flame or fire

*Thanks for coming to the **burn** today and for your interest in prairie restoration. (p. 2)*

burrow to make a hole or tunnel by digging

*Many insects **burrow** through trees that are harmed or killed by fire. (p. 9)*

couplings a device that connects two parts or things

*A spanner wrench is used to tighten and loosen the **couplings** that connect hoses. (p. 25)*

destroys to cause (something) to end or no longer exist

*The fire **destroys** poisons in the trees that would otherwise harm the grubs. (p. 8)*

dispatcher someone whose job is to talk by radio with people in vehicles (such as police cars, ambulances, or taxis) in order to send them to a particular place

*Mom was already out the door, but I could hear the **dispatcher's** voice on the pager. (p. 29)*

entangle to cause (something) to get caught in or twisted with something else

*A utility knife or wire cutter will snip wires, ropes, and cables that might **entangle** and trap a firefighter. (p. 24)*

equipment supplies or tools needed for a special purpose

*One of the first things firefighters do when they get to work is check their **equipment** and set it up near the fire truck. (p. 14)*

fuel a material that is burned (such as coal, oil, or gas) to produce heat or power

*Fire is what happens when you put together three things: **fuel**, oxygen, and heat. (p. 10)*

heat energy that causes things to become warmer

*Fire is what happens when you put together three things: fuel, oxygen, and **heat**. (p. 10)*

helmet a hard hat that is worn to protect your head

*The **helmet**, face mask, and air pack come next, but firefighter Greg keeps them stowed in the truck when he's driving. (p. 16)*

hydrant a pipe usually in the street that provides water especially for putting out fires

*You can't take the cap off a fire hydrant or turn the water on and off without a **hydrant** wrench. (p. 24)*

nozzle a short tube that is put on the end of a hose or pipe to control the way a liquid or gas flows out

*The **nozzle** attached to a fire hose aims and controls the water flow. (p. 25)*

oxygen a chemical that is found in the air, that has no color, taste, or smell, and that is necessary for life

*Fire is what happens when you put together three things: fuel, **oxygen**, and heat. (p. 10)*

pager a small electronic device that beeps or vibrates and shows a telephone number for the person carrying the device to call

*Then I realized it was Mom's **pager**. (p. 28)*

patient a person who receives medical care or treatment

*Every ambulance goes on a rescue call with at least two firefighters: the driver and someone to take care of the **patient**. (p. 22)*

poison a substance that can cause people or animals to die or to become very sick if it gets into their bodies

*The fire destroys **poisons** in the trees that would otherwise harm the grubs. (p. 8)*



prairie a large, mostly flat area of land in North America that has few trees and is covered in grasses

*Thanks for coming to the burn today and for your interest in **prairie** restoration. (p. 2)*

protect to keep (someone or something) from being harmed

*The boots, pants, jacket, hood, and helmet are all made of special materials that **protect** firefighters from flames, water, and heat. (p. 16)*

restoration the act or process of returning something to its original condition

*Thanks for coming to the burn today and for your interest in prairie **restoration**. (p. 2)*

sooty a black powder that is formed when something (such as wood or coal) is burned

*Their black backs blend in with the **sooty** wood, keeping them hidden while they feed their young. (p. 9)*

stowed put (something that is not being used) in a place where it is available, where it can be kept safely, etc.

*The helmet, face mask, and air pack come next, but firefighter Greg keeps them **stowed** in the truck when he's driving. (p. 16)*

stretcher a device that is made of a long piece of thick cloth stretched between two poles and that is used for carrying an injured person

*The ambulance has lots of cabinets packed with medicine, bandages, **stretchers**, and other equipment. (p. 22)*

thrive to grow or develop successfully

*But many plants and animals **thrive** after a fire. (p. 7)*

Click & the Kids

- http://www.museum.state.il.us/muslink/prairie/htmls/eco_adapt.html

Learn more about the characteristics of prairie plants.

- http://tpwd.texas.gov/kids/about_texas/regions/prairies_and_lakes/big_kids/

Find out interesting details about prairieland and the names of plants and animals that live in this habitat.

What is Fire?

- <http://www.pbs.org/wgbh/nova/physics/science-fire.html>

Discover the science of fire using interactive models.

- http://www.energyquest.ca.gov/how_it_works/fire.html

Read a brief history about fire, how it works, and its importance to human cultures.

Meet Firefighter Greg

- http://www6.montgomerycountymd.gov/content/frs-safe/kids/firefighter_gear/firefighter_gear.pdf

Take a deeper look at firefighter gear and tools.

Fire Trucks

- https://www.youtube.com/watch?v=s6fr9_27h_I

Ride a fire truck to school!

Where are the Tools?

- http://www.merrimacknh.gov/sites/merrimacknh/files/file/file/firefighter_tools_game1.pdf

Unscramble the names of these well-known firefighter tools.