

LCSS

LAWRENCE COUNTY SCHOOLS SUMMER SCHOLARS GUIDE KINDERGARTEN



Letter: Scholars Guide

Dear LCSS Families,

As the school year concludes, it is important to our educators and families that we provide opportunities for children to stay engaged with learning during the summer. LCSS has created a Summer Scholars Guide for grades K-8 that serves as a resource for families and aims to minimize summer learning loss and promote preparation for the upcoming school year. Suggestions in the Scholars Guide are optional activities to help students maintain and expand their academic growth over the summer.

In the Scholars Guide, you'll find a list of academic standards from the grade level that your child recently completed, with practice tips on subjects that are already familiar. You'll also find a list of academic standards related to your child's next grade level, allowing them to prepare for the upcoming school year. In both cases, you may need to adapt the suggested activities to meet your child's specific needs. Reading is one of the best things your child can do over the summer, and your local branch library has books for students of all ages. The Scholars Guide includes a list of reading topics and suggested educational websites. We wish your family a fun and safe break and look forward to seeing your child back in school next fall!

Glossary

Comprehension — Showing that the reader understands the texts that he or she just read.

Equation — An equation says that two things are equal and it will have an equal sign.

Fiction — Stories and books that are about imagined events.

Math fluency — The ability to add and subtract within 20 orally or in writing within three to five seconds.

Nonfiction — Books and articles that are about real-life events, science, and other subjects that are not imagined.

Plant structures — The basic structures of a living plant, which include a root system, a stem or trunk, branches, leaves, and reproductive structures (Ex. flowers, cones, spores).

Primary Sources — Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews — what the people involved said or wrote; original research; datasets; survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

Secondary Sources — One-step removed from primary sources, a secondary source is created by someone who did not directly witness an event, though they often quote or otherwise use primary sources. Secondary sources can cover the same topic as a primary source but add a layer of interpretation and analysis. Secondary sources can include: most books about a topic; analysis or interpretation of data; scholarly or other articles about a topic, especially by people not directly involved; documentaries (though they often include photos or video portions that can be considered primary sources).

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Recognize letters and sounds
- Write manuscript (printed) letters – upper/lower case
- Ask and answer questions to seek information
- Write 1-2 sentences on topic

MATH

- Identify written numerals
- Know number names and the counting sequence
- Count to tell the number of objects
- Count to 100 by 1's, 5's, and 10's
- Compare numbers (greater than, less than, equal to)
- Understand addition as putting together and adding to, and subtraction as taking apart and taking from
- Fluently add/subtract within 10 (the total is not > 10)

SCIENCE

- Use science tools to make observations (magnifying glass, balance, rain gauge)
- Determine a problem to solve in our designed world (bridges, packaging) and ways to solve them
- Make predictions based on prior experience
- Identify patterns in the weather and make predictions based off patterns

SOCIAL STUDIES

- Gather, examine, organize and communicate information from primary/secondary sources
- Explore different traditions, customs, and cultures
- Learn geography/mapping skills
- Understand good citizenship, civic responsibility
- Understand chronological order

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Read first-grade text accurately and with expression to support comprehension (understanding)
- Answer 1-2 questions after reading a text
- Retell a story in your own words
- Engage in conversations with family and friends
- Write a topic sentence and 1-2 details to support

MATH

- Represent with words, pictures, equations, or objects and solve problems involving addition /subtraction
- Understand and apply properties of operations and the relationship between addition/subtraction, EX., $3+5=8$ is the same as $5+3=8$ and related to $8-5=3$, and $8-3=5$
- Add and subtract within 20 (the total is not >20)
- Understand and use place value to add/subtract, Ex., break apart numbers into tens and ones to add: $26+24$ is the same as $20+20+6+4$

SCIENCE

- Observe different types of plants growing in different habitats
- Ask scientific questions
- Draw and object and identify parts by labeling them

SOCIAL STUDIES

- Learn about cultures within the student's community and state
- Learn about goods, services, products, and industries in TN
- Factors that influence people to save money
- Learn geography/mapping skills
- Understand past, present, chronological sequencing

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Take pictures of things in your home and create an alphabet book • Label things in your child's pictures. If your child draws a picture of a house, label it with "This is a house."

MATH

Create a colorful hopscotch board, toss a stone and count as you hop • Draw lines of a flag and use star stickers to count up to 50 • Use LEGO bricks to practice skip counting by 2's, starting with a brick with two studs, then four studs, and so on.

SCIENCE

Plant seeds in a cup or egg carton and follow the growth of seedlings as they sprout from the soil • Gather items from around the house and see which ones are pulled in by a magnet • Visit the Crockett Museum at David Crockett State Park.

SOCIAL STUDIES

Sample a new food from a different country each week • Visit Safety City, local museums, banks, grocery stores • Attend various cultural festivals in and around Lawrence County.

Keep reading all year long!

Visit these websites for free reading materials and other important information about why literacy matters.

- [Lawrence County Public Library](#)
- [The Library Box](#)

Reading List and Resource Guide



ENGLISH LANGUAGE ARTS

- *I Love Cake!: Starring Rabbit, Porcupine, and Moose* by Tammi Sauer
- *Giraffes Can't Dance* by Giles Andreae
- *The Thank You Book* by Mo Willems
- *The Napping House* by Don and Audrey Wood

MATH

- *City by Numbers* by Stephen Johnson
- *Teeth, Tails, and Tentacles: An Animal Counting Book* by Christopher Wormell
- *Potato Joe* by Keith Baker
- *Olivia Counts* by Ian Falconer

SCIENCE

- *Pick, Pull, Snap!* by Lola Schafer, illustrated by Lindsay George
- *A Fruit is a Suitcase for Seeds* by Jean Richards and Anca Hariton
- *Clouds* by Anne Rockwell and Franc Lasac
- *Thunder-Boomer!* by Shutta Crum, illustrated by Carol Thompson

SOCIAL STUDIES

- *Lucky to Live in Tennessee (Arcadia Kids)* by Kate B. Jerome
- *Symbols and Keys (Pebble Plus: Maps)* by Jennifer M. Besel
- *Same, Same But Different* by Jenny Sue Kostecki-Shaw
- *Good People Everywhere* by Lynea Gillen and Kristina Swarner

LCSS

LAWRENCE COUNTY SCHOOLS
SUMMER SCHOLARS GUIDE
FIRST GRADE



Letter: Scholars Guide

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Topic sentence – A sentence that expresses or summarizes the main idea of a paragraph.

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Read first-grade text accurately and with expression to support comprehension
- Answer 1-2 questions about the text after reading
- Retell a story in your own words
- Discuss with others the ideas in a text
- Write a topic sentence and 1-2 details to support

MATH

- Represent with words, pictures, equations, or objects and solve addition/subtraction problems
- Understand and apply properties of operations and relationship between addition/subtraction. Ex., $3 + 5 = 8$ is same as $5 + 3 = 8$; related to $8 - 5 = 3$, and $8 - 3 = 5$
- Fluently add/subtract within 20 (total is not > 20)
- Understand and use place value to add/subtract. Ex., break apart numbers into tens and ones to add: $26 + 24$ is the same as $20 + 20 + 6 + 4$

SCIENCE

- Record observations, thoughts, and data
- Compare predictions to what actually occurred
- Use counting and numbers to identify and describe patterns in our world
- Compare different types of plant structures

SOCIAL STUDIES

- Gather, examine, organize, and communicate information from primary/secondary sources
- Learn about cultures within the student's community and state
- Learn about goods, services, products, and industries in Tennessee

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Read second-grade text accurately and with expression to support comprehension
- Answer 1-2 questions about the text after reading
- Retell a story in your own words
- Engage in conversations with others
- Write a topic sentence and 1-2 details to support and a conclusion

MATH

- Add/subtract within 30 (total is not > 30)
- Understand and use place value to add/subtract. Ex., break apart numbers into tens and ones to add: $26 + 24$ is the same as $20 + 20 + 6 + 4$
- Measure and estimate lengths in standard units (inches, feet, yards, centimeters, mile)
- Solve real-world addition/subtraction problems using length

SCIENCE

- Use evidence from an observation to explain an idea
- Generate multiple solutions to a problem
- Conduct investigations using sound vibration

SOCIAL STUDIES

- Explore why collaboration and respect are necessary
- Learn about the U.S. economy, producers, consumers supply, demand, imports, exports, budgets
- Learn geography/mapping skills: keys, legends, and cardinal directions
- Understand the concept of democracy, rules, authority, national symbols, role of citizens

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Fill a small box with sand and use flash cards to draw out the letters of the word • Write letters to family or friends and mail them • Draw pictures and/or write sentences to share an experience like going to the playground, taking a walk

MATH

Use dice or playing cards to make a game out of practicing math facts (within 20) • Starting from any number, count to 120; count backwards from 20 • Play card or board games that involve counting, comparing, or patterns

SCIENCE

Go on a walk in an area with a variety of plants and look for the different parts of the plants • On a sunny day grab some chalk, outline your child's shadow and record the length at different times of day

SOCIAL STUDIES

Draw a colorful map to the nearest park • Create a calendar for each month using poster board • Attend various cultural festivals in and around Lawrence County

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Reading List and Resource Guide

ENGLISH LANGUAGE ARTS

- *What I Like About Me* by Allia Zobel-Nolan
- *A Bad Case of Stripes* by David Shannon
- *Spoon* by Amy Krouse Rosenthal
- *Stick and Stone* by Beth Ferry
- *Amazing Ants (Ready Readers: Plants, Animals, And People)* by Tammy Brown (recommend whole series)
- *Do You Really Want to Meet a Chimpanzee? (Do You Really Want To Meet...? Animals)* by Cari Meister, illustrated by Daniele Fabbri (recommend whole series)

MATH

- *What's New at the Zoo? An Animal Adding Advent* by Suzanne Slade and Joan C. Waites
- *Quack and Count* by Keith Baker
- *1+1=5 and Other Unlikely Additions* by David LaRochelle
- *If You Were a Minus Sign (Math Fun)* by Trisha Speed Shaskan and Francesca Carabelli • *How Tall, How Short, How Far Away* by David Adler and Nancy Tobin

SCIENCE

- *The Dandelion Seed* by Joseph Anthony, illustrated by Cris Arbo
- *The Tree* by Dana Lyons, illustrated by David Danioth
- *The Rainforest Grew All Around* by Susan Mitchell
- *Trout are Made of Trees* by April Pulley Sayre and Kate Endle

SOCIAL STUDIES

- *Goods and Services Around Town (Primary Source Readers: Social Studies 1)* by Heather E. Schwartz
- *If You Made a Million* by David Schwartz, illustrated by Steven Kellogg
- *What Are Rules and Laws? (First Step Nonfiction: Exploring Government)* by Jennifer Boothroyd
- *(ABDO Kids Junior: My Government)* by Julie Murray (recommend whole series)
- *I'm Reading About Tennessee: The Volunteer State! (I'm Reading About My State)* by Carole Marsh

LCSS

LAWRENCE COUNTY SCHOOLS SUMMER SCHOLARS GUIDE SECOND GRADE



Letter: Scholars Guide

Dear LCSS Families,

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Fiction – Stories and books that are about imagined events.

Math fluency – The ability to add and subtract within 30 orally or in writing within three to five seconds by the end of the school year.

Math operations – A mathematical process that includes addition, subtraction, multiplication or division.

Nonfiction – Books and articles that are about real life events, science, and other subjects that are not imagined.

Primary sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews - what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

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Standard units of length – Include inches, feet, yards, centimeters, mile.

Topic sentence – A sentence that expresses or summarizes the main idea of a paragraph.

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Read second-grade text accurately and with expression to support comprehension
- Answer 1-2 questions about the text after reading
- Engage in conversations with others
- Write a topic sentence and 1-2 details to support and a conclusion

MATH

- Represent with words, pictures, equations, or objects and solve addition/subtraction problems
- Fluently add/subtract within 30 (total is not > 30)
- Understand and use place value to add/subtract. Ex., break apart numbers into tens and ones to add: $26 + 24$ is the same as $20 + 20 + 6 + 4$
- Measure and estimate lengths in standard units
- Solve real-world addition/subtraction problems using length

SCIENCE

- Classify animals (vertebrates/invertebrates)
- Read grade-appropriate texts to determine evidence or patterns about the scientific world
- Generate multiple solutions to a problem
- Identify technologies, describe life without them

SOCIAL STUDIES

- Gather, examine, organize, and communicate information from primary/secondary sources
- Compare, contrast various cultures within U.S.
- Learn about the U.S. economy, producers, consumers supply, demand, imports, exports, budgets
- Learn about government/civics: different branches, national/state governments, rules and laws, voting

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Read third-grade text accurately and with expression to support comprehension
- Identify main idea of a text, explain supporting details
- Retell a story in your own words
- Write a paragraph that includes a main idea, details, and a conclusion

MATH

- Represent with words, pictures, equations, or objects and solve problems involving math operations (+, -, x, ÷)
- Understand properties of multiplication and the relationship between multiplication and division to multiply within 100 (up to 10×10). Ex., $2 \times 4 = 8$ is same as $4 \times 2 = 8$; related to $8 \div 2 = 4$ and $8 \div 4 = 2$
- Develop understanding of fractions as numbers
- Fluently multiply/divide within 100 (up to 10×10)

SCIENCE

- Read grade-appropriate texts to determine evidence or patterns about the scientific world
- Read graphs/tables to determine science data
- Observe and investigate human impact on the world

SOCIAL STUDIES

- Learn geography/mapping skills: maps, keys, legends, cardinal directions, globes, world, U.S./TN geography
- Observe and investigate human impact on our world
- Understand economics, including natural resources and goods and services in TN
- Learn about early American and TN history: indigenous peoples, European exploration, and early North American settlements

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Put together a schedule with friends to swap books each week • Create a scrapbook, drawing all of the favorite characters in the books read over the summer • Write a letter or postcard to an out-of-town family member

MATH

Use dice or playing cards to make a game out of practicing math facts (within 30) • Plant a vegetable garden and track the plants' height from week to week • Play restaurant and "buy" food they want to eat with pretend money

SCIENCE

Mix different amounts of vinegar/baking soda to create a volcano eruption • Make seed starter pots out of recycled materials that can be planted directly into the ground

SOCIAL STUDIES

Watch the Women's World Cup and mark winners on a world map • Go for a hike in David Crockett Park • Visit the Museum at David Crockett Park

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Reading List and Resource Guide



ENGLISH LANGUAGE ARTS

- *Edison: The Mystery of the Missing Mouse Treasure* by Torben Kuhlman
- *Dear Molly, Dear Olive* by Megan Atwood
- *Magic Tree House Series* by Mary Pope Osborne

MATH

- *Counting on Katherine: How Katherine Johnson Saved Apollo 13* by Helaine Becker
- *Three Times Four* by Ivan Brunetti
- *Math It: Measure It* by Nadia Higgins
- *Money Math: Addition and Subtraction* by David Adler

SCIENCE

- *Fur, Feather, Fin--All of Us are Kin* by Diane Lange
- *Flow, Spin, Grow: Looking for Patterns in Nature* by Patchen Barss
- *Timeless Thomas* by Gene Barretta
- *Charlotte the Scientist is Squished* by Camille Andros

SOCIAL STUDIES

- *The Extraordinary Mark Twain (According to Suzy)* by Barbara Kerley
- *Mapping Sam* by Joyce Hesselberth
- *My Life in the American Colonies* by Lynda Arnez
- *I'm Reading about Tennessee: The Volunteer State* by Carole Marsh

LCSS

LAWRENCE COUNTY SCHOOLS SUMMER SCHOLARS GUIDE THIRD GRADE



Letter: Scholars Guide

Dear LCSS Families,

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Glossary

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Equation – An equation says that two things are equal and it will have an equal sign.

Fiction – Stories and books that are about imagined events.

Math fluency – The ability to multiply and divide within 100 (within three to five seconds) orally or in writing by the end of the year. Fluency with larger numbers includes being able to quickly and efficiently use mental strategies, number patterns, place value strategies (breaking apart numbers into tens and ones), or written steps when adding and subtracting.

Math operations – A mathematical process that includes addition, subtraction, multiplication or division.

Nonfiction – Books and articles that are about real-life events, science, and other subjects that are not imagined.

Primary sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews - what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

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What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Read third-grade text accurately and with expression to support comprehension
- Retell a story in your own words
- Engage in conversations with others and express ideas clearly
- Write a paragraph that includes a main idea, details, and a conclusion

MATH

- Understand properties of multiplication and the relationship between multiplication and division to multiply within 100 (up to 10×10). Ex., $2 \times 4 = 8$ is same as $4 \times 2 = 8$; related to $8 \div 2 = 4$ and $8 \div 4 = 2$
- Develop understanding of fractions as numbers
- Apply concepts of area to multiplication/addition. Ex., area of rectangle measuring 4×2 could be found by multiplying 4×2 or adding $4 + 4$ or $2 + 2 + 2 + 2$
- Fluently multiply/divide within 100 (up to 10×10)

SCIENCE

- Understand impact of natural hazards and humans on the environment
- Read graphs/tables to determine science data
- Observe and describe volume, temperature and mass in matter

SOCIAL STUDIES

- Learn geography/mapping skills: globes; world, U.S. and TN geography, keys, legends, cardinal directions
- Understand economics, including natural resources and goods and services in TN
- Learn about early American and TN history: indigenous peoples, European exploration, early
- North American settlements

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Read fourth-grade text accurately and with expression to support comprehension
- Identify main idea of a text, explain supporting details
- Determine meaning of words or phrases within text
- Write a paragraph that includes a main idea, details, and a conclusion

MATH

- Use math operations (+, -, \times , \div) with whole numbers (no decimals or fractions) to solve problems
- Round, compare (>,<=), and understand the value of each digit for whole numbers up to 1,000,000
- Fluently add/subtract within 1,000,000 (total is not > 1,000,000)
- Understand equivalent fractions and compare
- Understand decimal notation for fractions and compare (fractions with the denominator of 10 or 100) Ex., $3/10 = 0.3$

SCIENCE

- Create graphs/data tables
- Make predictions about what would happen if a variable changes
- Ask questions that can be investigated and predict reasonable outcomes

SOCIAL STUDIES

- Learn causes, key figures of the American Revolution
- Learn about the U.S. Constitution, including writers, events leading to, and ideas embedded within
- Learn about Westward expansion. impact on American Indians
- Learn about the U.S. industrial economy
- Learn about the Civil War and Reconstruction

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Write a story about an imaginary video game, with yourself as the main character • Find an old picture of your parents, grandparents or other relative and write a story based on the picture

MATH

Use dice or playing cards to make a game out of practicing math facts (within 100) • Plant a vegetable garden and track the plants' height from week to week • Bake cookies and measure all of the ingredients in the recipe you are making

SCIENCE

Measure the outdoor temperature at the same time every day and keep a journal tracking the changes • Find an unusual insect and draw a picture of it • Take a hike at David Crockett Park and talk about what you see and learn

SOCIAL STUDIES

Watch the Women's World Cup and mark winners on a world map • Visit the Old Jail Museum • Take a walk down the Trail of Tears

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ENGLISH LANGUAGE ARTS

- *Spiderwick Chronicles* by Tony DiTerlizzi
- *Black Panther: The Young Prince* by Ronald Smith
- *Geronimo Stilton Series* by Geronimo Stilton (Also Thea Stilton Series)
- *Toys Go Out* by Emily Jenkins (series)

MATH

- *The Best of Times: Math Strategies that Multiply* by Gregory Tang
- *Circles* by David A. Adler
- *Snippets: A Story about Paper Shapes* by Diane Alber
- *Fractions in Disguise: A Math Adventure* by Edward Einhorn

SCIENCE

- *Animals by the Numbers: A Book of Infographics* by Steve Jenkins (reading graphs)
- *Hurricane Katrina and the Flooding of New Orleans: A Cause and Effect Investigation* by Mary K. Pratt (one of a series)
- *The Great Monkey Rescue: Saving the Golden Lion Tamarins* by Sandra Markle

SOCIAL STUDIES

- *Sitting Bull: A Lakota Warrior* by S.D. Nelson
- *Thomas Jefferson Grows a Nation* by Peggy Thomas
- *Mapping Sam* by Joyce Hesselberth
- *Civil War on Sunday* by Mary Pope Osborn

LCSS

LAWRENCE COUNTY SCHOOLS SUMMER SCHOLARS GUIDE FOURTH GRADE



Letter: Scholars Guide

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Math fluency – The ability to quickly and efficiently use mental strategies, number patterns, place-value strategies (breaking apart numbers into tens and ones), algorithms (step-by-step methods), or other written steps.

Nonfiction – Books and articles that are about real-life events, science, and other subjects that are not imagined.

Primary Sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews – what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

Secondary Sources – One step removed from primary sources, a secondary source is created by someone who did not directly witness an event, though they often quote or otherwise use primary sources. Secondary sources can cover the same topic as a primary source but add a layer of interpretation and analysis. Secondary sources can include: most books about a topic; analysis or interpretation of data; scholarly or other articles about a topic, especially by people not directly involved; documentaries (though they often include photos or video portions that can be considered primary sources).

Unit fraction – A fraction where the top number (the numerator) is 1.

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Read fourth-grade text accurately and with expression to support comprehension
- Retell a story in your own words
- Explain the relationships and interactions among individuals, events, and ideas
- Write multiple paragraphs that include a main idea, details, and a conclusion

MATH

- Use math operations (+, -, x, ÷) with whole numbers (no decimals or fractions) to solve problems
- Round, compare (>,<=), and understand the value of each digit for whole numbers up to 1,000,000
- Understand equivalent fractions and compare
- Understand decimal notation for fractions and compare decimal fractions (fractions with the denominator of 10 or 100) Ex., $3/10 = 0.3$

SCIENCE

- Understand the impact of animal populations or a species on the environment
- Use science tools to collect data
- Understand renewable and nonrenewable energy
- Research topics using grade-level science articles

SOCIAL STUDIES

- Gather, examine, organize, and communicate information from primary/secondary sources
- Understand the U.S. Constitution, including writers, events leading to, and ideas embedded within
- Learn about Westward expansion, impact on Native Americans
- Understand U.S. industrial economy: prior to and during Civil War and Reconstruction

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Read fifth-grade text accurately and with expression to support comprehension
- Identify main idea of a text, explain supporting details
- Integrate information from two or more texts on a topic
- Write multiple paragraphs that include a main idea, details, and a conclusion

MATH

- Read, write, compare (>,<=), and round decimals
- Perform operations (+, -, x, ÷) with whole numbers and with decimals to hundredths or two decimal places
- Fluently multiply up to three-digit by four-digit numbers
- Perform operations (+, -, x, ÷) with fractions including the multiplication of unit fractions by whole numbers (no fractional or decimal part) and whole numbers by unit fractions. Ex., $3 \times 1/4$ or $1/4 \times 3$

SCIENCE

- Research information about galaxies
- Review graphs/data tables about our solar system
- Make predictions about what would happen if a variable changes
- Ask questions that can be investigated and predict reasonable outcomes

SOCIAL STUDIES

- Learn about Industrialization, Gilded Age, Progressivism
- Learn about World War I, 1920s, Great Depression, World War II, Cold War
- Learn about Civil Rights Movement
- Learn Tennessee history pre-statehood; pre-1796-present
- Learn mapping skills: keys, legends, cardinal directions

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Keep a journal, scrapbook, or photos of places you visit and write a few sentences describing what you experienced • Write a script for a short movie and record it using a camera phone

MATH

Help your child find some appropriate number and problem-solving games to play online • Encourage your child to track or graph scores or stats for a favorite sports team • Bake cookies and measure all of the ingredients in the recipe you are making

SCIENCE

Collect paper scraps and design a flower using the recycled materials • Plan and carry out a science investigation • Visit area museums such as the Old Jail Museum

SOCIAL STUDIES

Attend an antique car/tractor event • Visit historic downtown • Hike the trails at David Crockett Park and read the historical markers

Keep reading all year long!

Visit these websites for free reading materials and other important information about why literacy matters.

- [Lawrence County Public Library](#)
- [The Library Box](#)

Reading List and Resource Guide



ENGLISH LANGUAGE ARTS

- *Rain Reign* by Ann M. Martin
- *Freedom on the Menu: The Greensboro Sit-ins* by Carole Boston Weatherford
- *A Boy and a Jaguar* by Alan Rabinowitz
- *The One and Only Ivan* by Katherine Applegate

MATH

- *Powerful Place Value* by Lisa Arias
- *Fraction Frenzy: Fractions and Decimals* by Rob Colson
- *The Great Number Rumble: A Story of Math in Surprising Places* by Cora Lee

SCIENCE

- *Separate is Never Equal: Sylvia Mendez & Her Family's Fight for Desegregation* by Duncan Tonatiuh
- *Iron Thunder: The Battle Between the Monitor & the Merrimac : a Civil War novel* by Avi
- *Rosa* by Nikki Giovanni

SOCIAL STUDIES

- *Mesmerized: How Ben Franklin Solved a Mystery that Baffled All of France* by Mara Rockliff
- *Ada Lovelace, Poet of Science: The First Computer Programmer* by Diane Stanley
- *George's Secret Key* by Lucy Hawking
- *The Wild Robot* by Peter Brown

LCSS

LAWRENCE COUNTY SCHOOLS
SUMMER SCHOLARS GUIDE
FIFTH GRADE



Letter: Scholars Guide

Dear LCSS Families,

As the school year concludes, it is important to our educators and families that we provide opportunities for children to stay engaged with learning during the summer. LCSS has created a Summer Scholars Guide for grades K-8 that serves as a resource for families and aims to minimize summer learning loss and promote preparation for the upcoming school year. Suggestions in the Scholars Guide are optional activities to help students maintain and expand their academic growth over the summer.

In the Scholars Guide, you'll find a list of academic standards from the grade level that your child recently completed, with practice tips on subjects that are already familiar. You'll also find a list of academic standards related to your child's next grade level, allowing them to prepare for the upcoming school year. In both cases, you may need to adapt the suggested activities to meet your child's specific needs. Reading is one of the best things your child can do over the summer, and your local branch library has books for students of all ages. The Scholars Guide includes a list of reading topics and suggested educational websites. We wish your family a fun and safe break and look forward to seeing your child back in school next fall!

Glossary

Comprehension – Showing that the reader understands the texts that he or she just read.

Expression – Numbers and symbols grouped together to show the value of something (Ex., $2 + y$).

Fiction – Stories and books that are about imagined events.

Main idea – What a text is mostly about.

Math fluency – Ability to quickly and efficiently use algorithms (step by step method) or other written steps when multiplying or dividing.

Nonfiction – Books and articles that are about real-life events, science, and other subjects that are not imagined.

Perspective/point of view – The author or narrator's position and/or attitude as it's explained or stated in the text.

Primary sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews - what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

Ratio – A comparison of two numbers, often written as a fraction.

Secondary sources – One step removed from primary sources, a secondary source is created by someone who did not directly witness an event, though they often quote or otherwise use primary sources. These sources can cover the same topic as a primary source but add a layer of interpretation and analysis. Secondary sources can include: most books about a topic; analysis or interpretation of data; scholarly or other articles about a topic, especially by people not directly involved; documentaries (though they often include photos or video portions that can be considered primary sources).

Summary – A brief account of the main points in a text.

Unit fraction – A fraction where the top number (the numerator) is 1.

Variable – Any symbol, usually a letter, which could represent a number.

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Read fifth-grade text accurately and with expression to support comprehension
- Identify main idea of a text, explain supporting details
- Explain the relationships and interactions among individuals, events, and ideas
- Integrate information from two or more texts on a topic
- Write multiple paragraphs that include a main idea, details, and a conclusion

MATH

- Read, write, compare ($>$, $<$, $=$), and round decimals
- Perform operations ($+$, $-$, \times , \div) with whole numbers and decimals to hundredths or two decimal places • Fluently multiply up to three-digit by four-digit numbers
- Perform operations ($+$, $-$, \times , \div) with fractions: multiplication of unit fractions by whole numbers and whole numbers by unit fractions. Ex., $3 \times \frac{1}{4}$ or $\frac{1}{4} \times 3$
- Relate volume to multiplication/addition. Ex., volume of a cube found by adding the area of each layer

SCIENCE

- Design a process to measure how temperature affects the rate of dissolving solids and liquids
- Explain the relationship between mass and distance and how it affects gravity
- Identify a local engineering example or the kinds of problems that can be solved through engineering

SOCIAL STUDIES

- Gather, examine, organize, and communicate information from primary/secondary sources • Learn about industrialization, Gilded Age, Progressivism
- Learn about World War I, 1920s, Great Depression, World War II, Cold War
- Learn about the Civil Rights movement

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Explain how an author conveys the point of view or perspective of the narrator/characters in a work of fiction
- Analyze whether speakers support their claims with reasons and evidence
- Write a summary of a text
- Use pronouns correctly and explain their function
- Use parentheses, commas, and dashes to set off parenthetical elements
- Use proper spelling. Ex., capitalization of proper nouns

MATH

- Understand, solve problems using ratios and unit rates
- Divide fractions and fluently divide whole numbers
- Understand positive and negative numbers (integers)
- Write, read, evaluate (solve) and rewrite equivalent expressions with variables
- Solve equations with one variable
- Represent relationships between variables using graphs, tables, and equations

SCIENCE

- Look for relationships among plants, animals, and climate in various ecosystems
- Compare, critique two arguments on the same topic

SOCIAL STUDIES

- Learn ancient history: Foundations of Human Civilization, Agricultural Revolution; Proper time designations; Ancient Mesopotamia, Egypt, Israel, India, China, Greece, Rome
- Learn mapping skills: keys, legends, cardinal direction

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Keep a journal, scrapbook, or photos of places you visit and write a few sentences describing what you experienced write a script for a short movie and record it using a camera phone

MATH

Track or graph scores or stats for a favorite sports team
Bake cookies and measure all of the ingredients in the recipe you are making

SCIENCE

Create your own makerspace at home • Explore the Amish and talk about what you see and learn • Visit area museums such as the David Crockett Museum

SOCIAL STUDIES

Attend an antique car/tractor event • Visit historic downtown • Hike the trails at David Crockett Park and read the historical marker

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Reading List and Resource Guide



ENGLISH LANGUAGE ARTS

- *Chains* by Laurie Halse Anderson
- *The Parker Inheritance* by Varian Johnson
- *Pax* by Sarah Pennypacker
- *The War That Saved My Life* by Kimberly Brubaker Bradley
- *The Night Diary* by Veera Hiranandani

MATH

- *NASA Mathematician Katherine Johnson (STEM Trailblazer Biographies)* by Heather E. Schwartz
- *Sideways Arithmetic from Wayside School* by Louis Sachar
- *Manga Math Mysteries. #5, The Ancient Formula: A Mystery with Fractions* by Melinda Thielbar
- *Fraction Frenzy: Fractions and Decimals* by Rob Colson

SCIENCE

- *The Evolution of Calpurnia Tate* by Jacqueline Kelly
- *Energy Island: How One Community Harnessed the Wind and Changed Their World* by Allan Drummond
- *Grand Canyon* by Jason Chin

SOCIAL STUDIES

- *We Were There Too!: Young People in U.S. History* by Phillip Hoose
- *Brown Girl Dreaming* by Jacqueline Woodson
- *12 Questions About Slave Narratives* by Lois Sepahban
- *Surviving Hitler: A Boy in the Nazi Death Camps* by Andrea Warren

LCSS

LAWRENCE COUNTY SCHOOLS
SUMMER SCHOLARS GUIDE
SIXTH GRADE



Letter: Scholars Guide

Dear LCSS Families,

As the school year concludes, it is important to our educators and families that we provide opportunities for children to stay engaged with learning during the summer. LCSS has created a Summer Scholars Guide for grades K-8 that serves as a resource for families and aims to minimize summer learning loss and promote preparation for the upcoming school year. Suggestions in the Scholars Guide are optional activities to help students maintain and expand their academic growth over the summer.

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Glossary

Expression – Numbers, symbols grouped together to show the value of something (ex., $2 + y$).

Integers – All whole numbers, both positive and negative, including zero.

Math fluency – Being able to quickly and efficiently use algorithms (step by step method) or other written steps when multiplying or dividing.

Primary Sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews - what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

Proportional – When two quantities always have the same relative size or they have the same ratio.

Ratio – A comparison of two numbers, often written as a fraction.

Secondary Sources – One step removed from primary sources, a secondary source is created by someone who did not directly witness an event, though they often quote or otherwise use primary sources. Secondary sources can cover the same topic as a primary source but add a layer of interpretation and analysis. Secondary sources can include: most books about a topic; analysis or interpretation of data; scholarly or other articles about a topic, especially by people not directly involved; documentaries (though they often include photos or video portions that can be considered primary sources).

Variable – Any symbol, usually a letter, which could represent a number.

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Explain how an author expresses the point of view/perspective of the narrator and characters in a story
- Analyze whether writers support claims/opinions with enough reasons and evidence to prove their point
- Write summaries of stories and articles
- Use the correct pronoun when writing or speaking
- Use proper spelling including capitalization of proper nouns (specific people, places, and dates)

MATH

- Understand/solve problems using ratios, unit rates
- Divide fractions and fluently divide whole numbers
- Understand positive and negative numbers (integers)
- Write, read, evaluate (solve) and rewrite equivalent expressions with variables
- Solve equations with one variable

SCIENCE

- Gather examples for how energy flows through ecosystems, earth processes, and natural resources
- Look for relationships among plants, animals, and climate in various ecosystems
- Compare/critique two arguments on same topic
- Ask questions that arise from careful observation of science in daily life experiences

SOCIAL STUDIES

- Gather, examine, synthesize, and communicate information from primary/secondary sources
- Learn about ancient history: proper time designations, foundations of human civilization, Ag Revolution
- Learn about ancient Africa, Mesopotamia, Egypt, Israel, India, China, Greece, Rome

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Determine an author's position/opinion and explain how it differs from others' alternative claims
- Explain whether a writer's or speaker's point is supported with enough details and evidence
- Analyze how a theme or central idea develops in a text
- Determine meaning of words as they're used in a text
- Explain the function of phrases and clauses
- Use commas to separate coordinate adjectives

MATH

- Compute unit rates, percent problems, and recognize proportional relationships. Represent these using equations, graphs, and real-world situations
- Add, subtract, multiply, and divide rational numbers
- Add, subtract, factor (find what to multiply) and rewrite expressions. Ex.: $2y + 6 = 2(y + 3)$
- Solve equations representing real-world situations with two variables

SCIENCE

- Communicate information about heredity via writing
- Use scientific reasoning to determine if data supports a claim
- Identify examples of the way advances in the medical field attempt to solve human problems

SOCIAL STUDIES

- Connect continuum of history through all grades
- Learn about world history: Fall of Rome to Age of Exploration
- Learn geography awareness/mapping skills: using keys, legends, compass rose, and intermediate directions

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Increase reading stamina by reading books/articles 20 minutes/day • Work on handwriting by keeping a journal of summer activities • Increase typing speed by practicing at typing.com • Compare movie to novel

MATH

Help your child find some appropriate number and problem-solving games to play online • Encourage your child to track or graph scores or stats for a favorite sports team • Help calculate gas mileage, best buys, and family budgets or vacation planning

SCIENCE

Create your own makerspace at home • Visit area science museums, botanical gardens, or the zoo • Visit David Crockett Park • Use Khan Academy to learn about science topics

SOCIAL STUDIES

Watch TedEd video segments on medieval/middle ages • Visit local museums • Go on a virtual tour around the world at 360cities.net

Keep reading all year long!

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- [Lawrence County Public Library](#)
- [The Library Box](#)



Reading List and Resource Guide

ENGLISH LANGUAGE ARTS

- *Painless Reading Comprehension; Painless Writing; Painless Vocabulary* by Darolyn Jones
- *The Dragon Grammar Book: Grammar for Kids, Dragons, and the Whole Kingdom* by Diane Mae Robinson
- *Booked* by Kwame Alexander
- *The Graveyard Book* by Neil Gaiman
- *Ella Minnow Pea: A Novel in Letters* by Mark Dunn
- *Regarding the Series* by Kate Klise

MATH

- *Math Doesn't Suck: How to Survive Middle School Math Without Losing Your Mind or Breaking a Nail* by Danica McKellar
- *G is for Googol: A Math Alphabet Book* by David M. Schwartz
- *The Sir Cumference series* by Cindy Neuschwander
- *A Gebra Named Al* by Wendy Isdell
- *The Number Devil* by Hans Enzensberger
- *Math and Magic in Wonderland and Math and Magic in Camelot* by Lilac Mohr

SCIENCE

- *The Wondrous Workings of Planet Earth: Understanding Our World and Its Ecosystems* by Rachel Ignatofsky
- *Amazon Adventure: How Tiny Fish are Saving the World's Largest Ecosystem* by Sy Montgomery
- *The Race to Save the Lord God Bird* by Phillip Hoose
- *My Side of the Mountain, Julie of the Wolves, Charlie's Raven* by Jean Craighead George
- *The Silverwing Trilogy* by Kenneth Oppel
- *Hoot, Flush, and Scat* by Carl Hiaasen
- *The Brilliant Fall of Gianna Z* by Kate Messner

SOCIAL STUDIES

- *We Were There Too!: Young People in U.S. History* by Phillip Hoose
- *Brown Girl Dreaming* by Jacqueline Woodson
- *12 Questions About Slave Narratives* by Lois Sepahban
- *Surviving Hitler: A Boy in the Nazi Death Camps* by Andrea Warren

LCSS

LAWRENCE COUNTY SCHOOLS

SUMMER SCHOLARS GUIDE

SEVENTH GRADE



Letter: Scholars Guide

Dear LCSS Families,

As the school year concludes, it is important to our educators and families that we provide opportunities for children to stay engaged with learning during the summer. LCSS has created a Summer Scholars Guide for grades K-8 that serves as a resource for families and aims to minimize summer learning loss and promote preparation for the upcoming school year. Suggestions in the Scholars Guide are optional activities to help students maintain and expand their academic growth over the summer.

In the Scholars Guide, you'll find a list of academic standards from the grade level that your child recently completed, with practice tips on subjects that are already familiar. You'll also find a list of academic standards related to your child's next grade level, allowing them to prepare for the upcoming school year. In both cases, you may need to adapt the suggested activities to meet your child's specific needs. Reading is one of the best things your child can do over the summer, and your local branch library has books for students of all ages. The Scholars Guide includes a list of reading topics and suggested educational websites. We wish your family a fun and safe break and look forward to seeing your child back in school next fall!

Glossary

Compass Rose – A circle showing the four directions printed on a map or chart.

Expression – Numbers and symbols grouped together to show the value of something (ex., $2 + y$).

Function – A rule or formula where each input value gives exactly one output value.

Integers – All whole numbers, both positive and negative, including zero.

Linear equation – An equation that gives a straight line when it is graphed.

Primary Sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews - what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

Proportional – When two quantities always have the same relative size or they have the same ratio (comparison of two numbers, often written as a fraction).

Secondary Sources – One step removed from primary sources, a secondary source is created by someone who did not directly witness an event, though they often quote or otherwise use primary sources. Secondary sources can cover the same topic as a primary source but add a layer of interpretation and analysis. Secondary sources can include: most books about a topic; analysis or interpretation of data; scholarly or other articles about a topic, especially by people not directly involved; documentaries (though they often include photos or video portions that can be considered primary sources).

Variable – Any symbol, usually a letter, which could represent a number.

What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Determine an author's position/opinion, explain how it differs from other people's alternative claims
- Explain whether a writer's or speaker's point is supported with enough details and evidence
- Write a story with a detailed setting (time and place) and dialogue (discussion) between characters
- Analyze how a theme or central idea develops in a text
- Determine meaning of words as they're used in a text

MATH

- Add, subtract, multiply, and divide rational numbers
- Add, subtract, factor and rewrite expressions
- Solve equations that represent real-world situations with two variables
- Write, read, evaluate (solve) and rewrite equivalent expressions with variables
- Solve equations with one variable
- Solve inequalities representing real-world situations

SCIENCE

- Read multiple publications to determine possible bias
- Investigate types of animal and plant adaptations
- Describe how elements on the periodic table, or compounds made from them, are present in everyday life
- Explain how energy flows through living and non-living parts of an ecosystem

SOCIAL STUDIES

- Gather, examine, synthesize, and communicate information from primary/secondary sources
- Learn world history: Fall of Rome, Age of Exploration
- Learn geography awareness/mapping skills: keys, legends, compass rose, and intermediate directions

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Determine how characters interact over the course of a story to develop a theme
- Analyze how word choices impact meaning and tone
- Determine how particular sentences and paragraphs add meaning to an article or story
- Notice how modern stories include allusions (refer to famous or historical people and events)
- When writing or speaking, produce compound, complex, and compound-complex sentences

MATH

- Understand exponents, square and cube roots, and scientific notation
- Graph proportional relationships and interpret the slope as unit rate
- Solve linear equations/systems of two linear equations
- Understand, compare, construct, and describe functions, and know $y = mx + b$
- Understand and apply the Pythagorean Theorem

SCIENCE

- Ask questions that arise from careful observation of science in daily life experiences
- Use scientific reasoning to see if data supports claim
- Look for examples of waves in the environment and their use in technology
- Research the formation of the Appalachian Mountains

SOCIAL STUDIES

- Transition to U.S. history after two years of World History
- Learn about colonization, Civil War and Reconstruction
- Learn geography awareness/mapping skills: using keys, legends, compass rose, and intermediate directions

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Read 20 minutes daily and write summaries to share with a parent or sibling • Increase typing speed by practicing at typing.com • Work on handwriting by copying down motivational quotes

MATH

Help your child find some appropriate number and problem-solving games to play online • Track or graph scores/stats for a favorite sports team including winning percentages • Help calculate gas mileage, best buys, and family budgets or vacation planning

SCIENCE

Visit area science museums, botanical gardens, or the zoo • Create a birding journal that identifies where and when each species was spotted • Use Khan Academy to learn about science topics online

SOCIAL STUDIES

Create your own Google Map and share with friends • Go on a high-tech treasure hunt for a geocache • Attend an antique truck/tractor event • Visit local museums

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Reading List and Resource Guide



ENGLISH LANGUAGE ARTS

- *Strong Inside (Young Readers Edition)* by Andrew Maraniss
- *Percy Jackson and the Olympians (and other book titles)* by Rick Riordan
- *Property of the Rebel Librarian* by Allison Varnes
- *The Inquisitor's Tale* by Adam Gidwitz
- *A Tale Dark and Grimm* by Adam Gidwitz
- *What the Dickens: The Story of a Rogue Tooth Fairy* by Gregory McGuire

MATH

- *Kiss My Math: Showing Pre-Algebra Who's Boss* by Danica McKellar
- *Painless Pre-Algebra (Barron's Painless series)* by Amy Stahl
- *What's Your Angle, Pythagoras?: A Math Adventure* by Julie Ellis
- *Ruby Redfort: Feel the Fear* by Lauren Child

SCIENCE

- *An American Plague* by Jim Murphy
- *Outrageous Animal Adaptations: From Big-Eared Bats to Frill-Necked Lizards* by Michael J. Rosen
- *The Periodic Table Elements with Style! (and other Basher Science titles)* by Simon Basher
- *Blizzard!: The Storm that Changed America* by Jim Murphy
- *Fever 1793* by Laurie Halse Anderson
- *Brendan Buckley's Universe and Everything In It* by Sundee Frazier

SOCIAL STUDIES

- *The Atlas Obscura: Explorer's Guide for the World's Most Adventurous Kid* by Dylan Thuras
- *Cathedral* by David Macaulay
- *Medieval Life; Castle; Knight; Arms and Armor; Vikings; Renaissance* by various authors
- *Midwife's Apprentice* by Karen Cushman
- *Catherine, Called Birdy* by Karen Cushman
- *Crispin: The Cross of Lead and Crispin: At the Edge of the World* by Avi
- *The Shakespeare Stealer Series* by Gary Blackwood
- *Castle Diary: The Journal of Tobias Burgess* by Richard Platt

LCSS

LAWRENCE COUNTY SCHOOLS SUMMER SCHOLARS GUIDE EIGHTH GRADE



Letter: Scholars Guide

Dear LCSS Families,

As the school year concludes, it is important to our educators and families that we provide opportunities for children to stay engaged with learning during the summer. LCSS has created a Summer Scholars Guide for grades K-8 that serves as a resource for families and aims to minimize summer learning loss and promote preparation for the upcoming school year. Suggestions in the Scholars Guide are optional activities to help students maintain and expand their academic growth over the summer.

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Glossary

Compass Rose – A circle showing the four directions printed on a map or chart.

Expression – Numbers and symbols grouped together to show the value of something (Ex., $2 + y$).

Function – A rule or formula where each input value gives exactly one output value.

Linear equation – An equation that gives a straight line when it is graphed.

Polynomial – A polynomial can have constants (like 4), variables (like x or y) and exponents (like the 2 in y^2), that can be combined using addition, subtraction, multiplication and division.

Primary Sources – Immediate, first-hand accounts of a topic from people who had a direct connection with an event. Primary sources can include: texts of laws and other original documents; newspaper reports by reporters who witnessed an event or who quote people who did; speeches, diaries, letters and interviews - what the people involved said or wrote; original research; datasets or survey data, such as census or economic statistics; photographs, video, or audio that capture an event.

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What you learned **this** year and need to keep practicing

ENGLISH LANGUAGE ARTS

- Determine how characters interact over the course of a story to develop a theme
- Analyze how word choices impact meaning and tone • Determine how particular sentences and paragraphs add meaning to an article or story
- Notice how modern stories include allusions • When writing or speaking, produce compound, complex, and compound-complex sentences

MATH

- Understand exponents, square/cube roots, and scientific notation
- Graph proportional relationships and interpret the slope as unit rate
- Understand, compare, construct, and describe functions, and know $y = mx + b$
- Understand and apply the Pythagorean Theorem

SCIENCE

- Use scientific reasoning to see if data supports claim
- Describe use of electromagnets/motors in industry
- Model how forces combine to create movement of an object
- Gather evidence of the impact of forces on objects in everyday life

SOCIAL STUDIES

- Gather, examine, synthesize, and communicate information from primary/secondary sources
- Learn about colonization, Civil War, Reconstruction
- Learn geography awareness/mapping skills: using keys, legends, compass rose, intermediate directions

What is ahead **next** year that you can prepare for

ENGLISH LANGUAGE ARTS

- Determine a central idea or theme and write a summary
- Determine impact of word choices on meaning/tone of text and how language evokes a sense of time/place
- Analyze how an author creates mystery, tension in stories
- Determine an author's point of view/perspective and how rhetoric is used to prove the author's point
- Read a variety of texts and consider how they provide a better understanding of a related topic

MATH

- Interpret and rewrite equivalent expressions
- Add, subtract, multiply, and divide polynomials
- Create equations to describe numbers or relationships
- Represent and solve equations and inequalities
- Understand and interpret functions
- Interpret linear models

SCIENCE

- Compare and critique two arguments on the same science topic
- Read information from multiple publications to determine possible bias
- Decide when to use qualitative vs. quantitative data
- Read and analyze lab findings

SOCIAL STUDIES

- Learn about world history: Age of Revolution (including Enlightenment philosophers), Industrial Revolution, Unification and Imperialism, World Wars, Cold War, Contemporary World

Things to do and places to go during the summer

ENGLISH LANGUAGE ARTS

Write down interesting quotes and explain why they are important to you • Increase typing speed by practicing online at typing.com • Watch presentations on TED.com and take notes on important details

MATH

Help your child find some appropriate number and problem-solving games to play online • Track or graph scores/stats for a favorite sports team including winning percentages • Help calculate gas mileage, best buys, and family budgets or vacation planning

SCIENCE

Visit area science museums, botanical gardens, or the zoo • Create a birding journal that identifies where and when each species was spotted • Use Khan Academy to learn about science topics online

SOCIAL STUDIES

Create your own Google Map and share with friends • Go on a high-tech treasure hunt for a geocache • Visit local museums • Take a trip to the Lawrence County Archives

Keep reading all year long!

Visit these websites for free reading materials and other important information about why literacy matters.

- [Lawrence County Public Library](#)
- [The Library Box](#)

Reading List and Resource Guide



ENGLISH LANGUAGE ARTS

- *Ghost* by Jason Reynolds
- *Ghost Boys* by Jewell Parker Rhodes
- *Refugee* by Alan Gratz
- *The Maze Runner* by James Dashner
- *Monkey Town: The Summer of the Scopes Trial* by Ronald Kidd
- *The Green Glass Sea* by Ellen Klages

MATH

- *Hot X: Algebra Exposed* by Danica McKellar
- *Painless Algebra (Barron's Painless series)* by Lynette Long
- *Do the Math: Secrets, Lies, and Algebra* by Wendy Lichtman
- *Do the Math: The Writing on the Wall* by Wendy Lichtman

SCIENCE

- *The Wright Brothers: How they Invented the Airplane* by Russell Freedman
- *The Boy Who Harnessed the Wind* by William Kamkwamba
- *Airborn, Skybreaker, Starclimber trilogy* by Kenneth Oppel
- *Life As We Knew It* by Susan Beth Pfeffer
- *The Martian (Young Readers Edition)* by Andy Weir
- *The Reinvention of Edison Thomas* by Jacqueline Houtman

SOCIAL STUDIES

- *Come On In, America: The United States in World War I* by Linda Barrett Osborne
- *Emancipation Proclamation: Lincoln and the Dawn of Liberty* by Tonya Bolden
- *Truce* by Jim Murphy
- *Immigrant Kids* by Russell Freedman
- *Painless American History (Barron's Painless series)* by Curt Lader
- *Seeds of America trilogy (Chains, Forge, Ashes)* by Laurie Halse Anderson
- *Ashes of Roses* by M.J. Auch
- *The Astonishing Life of Octavian Nothing, Traitor to the Nation, volumes 1 and 2* by M.T. Anderson