The goal of this calendar is to help students review content and skills over the summer through fun, grade-level appropriate tasks and activities that can be completed as a family. In an effort to increase literacy skills with this calendar, we suggest that each student keep a journal and write or draw daily about the activities they complete. Encourage your child to write new and interesting words they learn in their journal. Reading is one of the most beneficial things kids can do over the summer. We suggest that you read to your child or have your child independently read for 20 minutes everyday. **Standards identifiers are shown in parentheses. Complete standards can be found at www.georgiastandards.org.**

### FUTURE FIFTH GRADER ACTIVITIES

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| **1** Collect Leaves  
Collect 12 leaves of various shapes, sizes, and colors from the ground. Conduct a comparison investigation by asking: • What differences and similarities can you see? Measure each leaf to the nearest ¼ inch and chart your data. Then create a line plot graph that represents your leaf length data.  
(Planning and Carrying out an Investigation) | **2** Reusing  
Use items you would throw away or recycle to make something useful. Describe a problem that your product will help to solve. Name your product, set a price, and create a slogan. Bonus: In your design, include a simple machine that helps make work easier.  
(Asking Questions and Defining Problems, 4MP3c) | **3** National Egg Day: Egg Drop Challenge!!!  
Using a variety of materials or supplies on hand, design, build, & test a contraption that will protect an egg from breaking when dropped from a specific height. You will need 1 raw egg, a ziploc bag to put the egg in BEFORE you drop it, and materials you have on hand to build your contraption. Start by choosing a specific height to drop the egg from and use the same height each time. This is great for the whole family!  
(Constructing Explanations and Designing Solutions) | **4** Think Like A Leader  
Design your own game. Make sure you write down all of the rules. Play it with family members. If you need to change the rules, would you rather that one person gets to decide how to change them or should everyone playing the game get a vote? How would the rules be changed in a representative democracy? How would they be changed in a monarchy, like that of King George III?  
(SSIPS #3, 11; SS4CG1d) |

**Week 1 Garden Extension:** Meat Eating Plants, National Geographic Kids. Research to find out if any carnivorous plants live in our area. A venus flytrap uses trigger hairs to send a signal to the leaves of the plant to close around its prey. Can you invent a similar type device for human use? We already have some similar devices such as stepping on a mat in front of a door to make it open or waving your foot under a bumper to make a car hatchback open. What other uses can you think of for opening and closing the plant? Can you invent a similar type device for human use? Measuring and charting similarities can you see? Measure each leaf to the nearest ¼ inch and chart your data. Then create a line plot graph that represents your leaf length data.  
(Planning and Carrying out an Investigation)

**Week 2 Flag Day Extension:** Each day we say the Pledge of Allegiance to the flag and the United States of America? What does it mean to pledge allegiance to something? Name a reason that we should pledge our allegiance to our country. Research the rules to follow for displaying an American flag. You might find this website helpful: https://www.pbs.org/a-capitol-fourth/history/old-glory/ Which rules could you do a better job following? Design a flag for your family - what do the colors represent? What do the shapes represent? What rules should you follow for displaying your flag?

| **7** Play basketball  
How many baskets did you make out of 10? If you do not have a basketball, ball up a piece of paper and try to ring a trash can. What is the fraction of how many baskets you made? Play again. What is that fraction? Add the two fractions together. Compare the two fractions. How do you know which one is the larger fraction?  
(MGS4.NF.3) | **8** Go outside and take a walk  
During your walk, stop and stand still for 3 minutes. What do you see? Hear? Feel? Write down the specifics in a journal and answer the question: Do you think going outside is healthy for you? Why or why not?  
(Planning and Carrying out an Investigation, Analyzing and Using Data) | **9** Water Balloon STEM Challenge  
Use materials you have on hand to prevent a water balloon from popping. Go outside and test by throwing it against a wall or tree.  
(Constructing Explanations and Designing Solutions) | **10** Follow a recipe  
Bake or cook something, as simple as a peanut butter sandwich or as complex as an entire meal. Write an opinion piece about your experience. Introduce your topic clearly, state your opinion, support it with facts and details, and include a concluding section related to your opinion.  
(ELAGSE4W1) | **11** Think Like An Economist & A Historian  
Collect all the coins you can find in your house. Organize the coins in a timeline. In what year was the oldest coin made? How old is it? Was anyone in your family alive in that year? What memorable and/or historical event(s) happened in that year?  
(SSIPS #2, 7, 10, 11) |
14. Measure It Monday

Measure the length of your hand in inches. Multiply that by 5. If we used the answer to create a number pattern, what would be the next number? What would be the number after that? (MGSE4.OA.5)

15. Bird Feeder

Design and build a bird feeder. How many birds do you think it will attract? What design improvements can you make to attract more birds? What kind of birds did your feeder attract? To identify the different birds use these resources: Merlin Bird ID app or Allaboutbirds.org. (Constructing Explanations and Designing Solutions)

16. Virtual Visit

Visit National Geographic for Kids and find an animal that interests you. Develop a brochure, presentation to tell others what you’ve learned. Try to use expert words important to that animal. (Obtaining, Evaluating, and Communicating Information)

17. Catapult Design Challenge

How far can you launch something with a homemade catapult? Which items fly the farthest? Plan, design, and build a working catapult. Use this easy popsicle stick catapult design or let get creative with LEGO, pencils, spoons and cardboard tubes! (S4P3)

18. Think Like A Geocacher

Take a walk in your neighborhood. Identify the names of several streets. Using a map of your city or Fayette County, locate the map key. Determine the distance from your home to: your school, your favorite store, your favorite place to play with your friends, your favorite place to play a sport, etc. Which was the longest distance? (SSMGS#5)

**Week 3 Summer Solstice Extension:** The term solstice comes from the Latin word sol which means sun. As you read this summer, take note of words containing this Latin stem. Designate a page in your journal for your word collection. Other stems you might want to notice during your summer reading are: Terra -Earth, Geo -Earth, Astro -Star, Lum -light, and Luc -light.

Fun fact: Be sure to look at your noontime shadow around the time of the solstice. It will be your shortest noontime shadow of the year!

The longest day of the year is the perfect day to build your own solar oven. [https://desertchica.com/diy-solar-oven-smores-kids-science-experiment/](https://desertchica.com/diy-solar-oven-smores-kids-science-experiment/)

21. Baseball by the Numbers

Pick out your favorite baseball player. What is their jersey number? Do you know why they chose this jersey number? Is it prime or composite? How do you know? Is it odd or even? How do you know? List all the factors of the number. List at least 10 multiples of the number. (MGSE4.OA.4)

22. Traveling Seeds

Most plants reproduce using systems that include flowers and seeds. In this outdoor investigation, you will observe, collect, and classify plant seeds. Gather a collection of seeds from a wooded area. Explain that plants have developed many different methods of seed dispersal, to ensure the success of their species. Examine the seed collection and invent a system for sorting or classifying them. (Investigate, sort/classify)

23. Tallest Tower Challenge

How high can you go? Using 20 mini marshmallows and toothpicks, straws, or uncooked spaghetti noodles to build the tallest tower possible! Use a tape measure to measure the height of the tower in centimeters. Be sure that you draw out your ideas before you start. (Constructing Explanations and Designing Solutions)

24. Story Writing

Write a story that includes descriptive details and dialogue to show how characters react to events. Your story could be realistic fiction, fantasy, personal narrative, or historical fiction. Bonus: write your story as a script of a play! (ELAGSE4W3)

25. Think Like a Historian

In honor of National Sunglasses Day Sunday, look up photos of people in sunglasses. They can be family pictures, pictures in a magazine, or historic pictures. Why do you think the person is wearing sunglasses? Evaluate this photo of soldiers in the Civil War. What do you see? What do you think is happening? What new questions do you have? Are any of the soldiers wearing sunglasses? Why or why not? Is this the same or different from today? (SSIPS #6, 10, 11, 14)

**Week 4 Dragon Boat Extension:** What is buoyancy? [https://mocomi.com/buoyancy/](https://mocomi.com/buoyancy/) Can you create your own sail boat from items around your house? Can your boat float across a tub of water by blowing on the sails? Try making an origami Dragon Boat with this fun link!

28. Shadow Day

Shadow Poem

Stand outside in the sun to make a shadow. Have someone mark where your shadow starts and stops. Return later in the day to the same spot, mark your shadow now. What type of angle have you formed? (MGSE4.MD.5)

29. Go on a walk outside.

Look at the sky. What does it look like? Feel the temperature and if you have an outside thermometer, read it. Do you see signs of impending weather? What do you predict the weather will be for the next few hours? (S4E4.a,b,c.)

30. Longest Paper Chain

Make the longest paper chain you can, using a single piece of 8.5” x 11” paper and tape or staples. Measure your paper chain in inches. Use a scale to imagine how far your chain could stretch if every inch represented 10 miles on a map. How many miles would that be? Where could you go from your house that would be that far away? (Map and Globe Skills)
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<td><strong>1 National US Postage Stamp Day</strong>&lt;br&gt;Today is National U.S. Postage Stamp Day. Think of a topic you learned about in science this year. Design a stamp highlighting your favorite science fact. (Obtaining, Evaluating, and Communicating Information)</td>
<td><strong>2 Think Like A Historian</strong>&lt;br&gt;Create at least five questions about memories of Independence Day or another holiday. Ask at least two family members the questions you have created. Record your answers in your journal. Ask someone else the same questions. Are their answers the same or different? Are the answers they have provided facts or opinions? Are the answers from a primary or secondary source? What was the most interesting thing you learned? (SSIPS #4, 6, 11, 14)</td>
<td><strong>3 Prepare a Meal</strong>&lt;br&gt;Help an adult prepare a meal. Can you measure the ingredients in the recipe? Can you double them? (MGS4.NF.3)</td>
<td><strong>4 Adopt a Tree Task</strong>&lt;br&gt;Pick a tree in your yard or nearby and observe it. Keep notes about it in your journal where you can draw pictures of your tree and write about what you observe. (Planning and Carrying Out Investigations)</td>
<td><strong>5 Keep it Cold</strong>&lt;br&gt;Design a device to keep a popsicle or ice cube from melting. Write about your experiment and provide a reaction to what happened. What would you do differently next time? (Constructing Explanations and Designing Solutions)</td>
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<td><strong>6 Virtual Visit</strong>&lt;br&gt;Visit one of these aquarium webcams: Georgia Aquarium Webcams and Monterey Bay Aquarium Webcams. Use shapes to create an animal that lives in the ocean. Identify at least one right angle, one acute angle and one obtuse angle, parallel lines and perpendicular lines in your picture. (MGS4.G.1)</td>
<td><strong>7 Secret Code</strong>&lt;br&gt;Did you know that George Washington communicated using messages written in secret code during the Revolutionary War? Can you create your own secret code using letters, numbers, shapes or something else? See if a friend or family member can crack it. When you use your code, what patterns do you notice? Who else might use your code? Extension: Research George Washington and secret codes. Why did American soldiers use secret codes? How did it help? (SSIPS #6, 10, 11)</td>
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**Week 5 Independence Day Extension** Independence Day: Get the scoop on why we celebrate the Fourth of July! National Geographic Kids, Select a craft activity to complete as a fun way to celebrate the Fourth of July, research to find a fun, creative 4th of July patriotic dessert to make and share.

**Week 6 Extension** 14 Tools to Turn Game-Obsessed Kids into Genuine Game Designers. Common Sense Media Design your ideal video game. Determine the story arc for your video game. This is a simple overview of the story within your game. Decide on the setting, characters, different levels, etc. Share your video game vision with a friend or family member and get their feedback to make improvements. What would it take to make your video game to come to fruition? Research your ideas. Explore the Scratch program to go further: Scratch.
12. **Jumping Maze Challenge**
Follow this link to create a sidewalk chalk jumping maze game. Have fun! (SMP 1)

13. **Cow Appreciation Day**
Today is cow appreciation day. Research to find information about cows, including the part a cow plays in an ecosystem and what would happen if there were no cows. Use the information to write a fiction or non-fiction book with illustrations and a cover. FYI: Today is Cow Appreciation Day at Chick-Fil-A (ELAGSE4W2 or W3, SL4.1)

14. **Build An Unsinkable Vessel**
Build a vessel that floats and can’t be sunk! Using recycled items and supplies from around the house, build a vessel that will float in a tub of water. Take it a step further and build a vessel that will hold a specific object such as a soup can! Evaluate your success, and use the results to improve or make a new vessel. Record your observations in your journal. (Constructing Explanations and Designing Solutions)

15. **Make a Puzzle**
Draw a picture, make a painting, or create a magazine photo collage of something you learned in 4th grade Science or Social Studies. Cut the picture up into jigsaw puzzle pieces and ask someone in your family to put it together. Pro tip: Glue your creation to thin cardboard before you cut it to keep the pieces sturdy.

16. **Think Like An Economist**
The adults in your home are tired and have asked you to plan dinner. You can spend $6 on each person in your family. If you have money left over, you can save it. What will you prepare? How much will it cost? Will you be able to save any money? If you can save money, what is the opportunity cost (choice you gave up to have money left over)? What was the source of your income? What were your expenditures? What decisions did you have to make about spending and saving? (SS4E2: SSIPS #3, 11)

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**Week 7 Extension**
Capture a time-lapse video- Set up your device to capture a time-lapse video while you build a fort, make your favorite snack, clean up your room, or a creative activity of your choosing. Get started: Choose Time-Lapse mode in your Camera app. Tap the Record button to start recording; tap it again when you’re done. See if you can create a narrative for your video. Research more about the different types of photography genres you can pursue as a professional photographer. Which one do you think is best?

19. **Scavenger Hunt**
Click this link for a fun scavenger hunt, or find two 2-digit numbers in the world around you (newspaper, book, store ad, etc) and estimate their product. Multiply them and see how close you were. (MGSE4.NBT.1)

20. **Sidewalk Chalk Pattern**
Make a “stained glass” pattern using tape and sidewalk chalk. Identify angles, perpendicular lines and parallel lines in your picture. (MGSE4.G.1 & Constructing with Design, Pattern, and Geometric Figures)

21. **Liquid Density Tower Experiment**
Gather these supplies: Syrup, Water, Cooking Oil, Rubbing Alcohol, Dish Soap, and a Tall Jar or glass. Slowly pour the liquids into the container. What did you notice? Can you predict which are heaviest? Draw a model or picture of what your tower looks like. Be sure to label the parts. Write about what happens? What would happen if we add an ice cube? (Planning and Carrying Out Investigations)

22. **Dance!**
Make up a dance routine to your favorite song. Write or sketch the steps. Make up a dance routine to your favorite song. Write or sketch the steps so you don’t forget them. Practice it several times and perform it for your family. Bonus: Teach it to them! (ESGM5.CN.1)

23. **Amelia Earhart**
In honor of National Sunglasses Day Saturday, conduct research at Amelia Earhart, National Geographic for Kids, and in books. Look at the places she flew on a map or globe. Which trip do you think was the longest? Using a map key, estimate the number of miles she traveled on one of her trips. If you could meet Amelia, what questions would you ask her? Which famous American you studied in 4th grade is most like Amelia? Most like you? (SS4H; SSMGS #5; SSIPS #11, 14)

Bonus: Use items around your house to create airplanes.

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**Week 8 Extension**
Aviation: Take what you’ve learned about rockets and design your own or you can follow these directions from NASA. Visit a memorial in Fayette County or SSIPS #11, 14)

26. **Game Time**
Grab a partner for this prime or composite card game. Deal out the entire deck of cards evenly to each person. Have each player turn over one card. Create a number using the cards turned over. The first person to determine all of the factors of the number created takes both cards. The person with the most cards at the end wins. (MGSE4.OA.4)

27. **Collecting Rocks**
Go outside and look at rocks. Collect 10 of them. How can you sort them? (texture, color, luster, hardness) Draw your rocks in your journal. (Investigate, sort, classify)

28. **Playdough**
Follow this recipe and steps to make playdough.
Without looking at the recipe, write the ingredients and directions for making the playdough. Give your recipe to an adult and have them test your directions. Compare the given recipe to your playdough recipe. How are these playdoughs similar and different? (Planning and Carrying Out Investigations, Analyzing and Using Data)

29. **Obstacle Course**
Design and make an obstacle course at home or in the yard. How fast can you complete it? Time yourself. Try it again. Was your time faster or slower than the first time? Time your family completing it, too, and make a line plot of everyone’s attempts. (MGSE4.MD.4)

30. **Think Like A Historian**
Visit a memorial in Fayette County or find a street name that is of interest to you. Use at least two sources to research who or what is being honored. What did you learn that was unexpected about the person or event? Was the information from both sources the same? If not, why not? In your opinion, should this memorial have been created? If you were going to create a monument or memorial for someone in your life, who would it be? Why? Ask the people in your family what they think about the last two questions. (SSIPS#4, 11, 15, 16)
Other Suggested Resources:

★ MyOn - Digital Library over 10,000 titles. [https://www.myon.com/index.html](https://www.myon.com/index.html)
Enter the following information: **School Name**: Get Georgia Reading, Georgia Campaign for Grade Level Reading (Note: DO NOT cut and paste. Start typing "Get Georgia...)
**Username**: fayetteounty  **Password**: read
★ Local Libraries - [Fayette](https://www.myon.com/index.html), [Peachtree City](https://www.myon.com/index.html), and [Tyrone](https://www.myon.com/index.html)
★ Georgia Public Broadcasting and PBS Kids - hosts online events and learning activities [https://www.gpb.org/education/summer-resources](https://www.gpb.org/education/summer-resources)