### Fourth Grade



April 2020

#### Hello Parents.

We hope that this letter finds you doing well and adjusting to the changes in our world. We continue to work to offer resources that provide practice of skills students have learned this school year. Attached you will find choice boards (and supporting materials) for students to choose activities to complete in Language Arts, Math, Science, and Social Studies between April 20 and May 1. In addition, you will find daily math problem practice and an answer sheet that follows. There are many activities provided, a student would not be expected to complete them all. Please remember, all activities are optional and completed work will **not need** to be returned to school for grading or credit. If you find you need more resources, please check the UCPS EmpowerED Family Portal on our website <a href="https://www.ucps.k12.nc.us/domain/2917">www.ucps.k12.nc.us/domain/2917</a>.

Stay safe and healthy!

Abril 2020

#### Estimados Padres,

Esperamos que al recibir esta carta se encuentren bien y adaptándose a los cambios en nuestro mundo. Continuamos trabajando para ofrecer a los estudiantes recursos que les brinden práctica de las habilidades que han aprendido este año escolar. Adjunto encontrará tableros de elección (y materiales de apoyo) para que los estudiantes elijan actividades para completar en Artes del Lenguaje, Matemáticas, Ciencias y Estudios Sociales. Además, encontrarán práctica diaria de problemas matemáticos y una hoja de respuestas. Se proporcionan muchas actividades, no se espera que el estudiante las complete todas entre el 20 de Abril y el 1 de Mayo. Por favor recuerde, todas las actividades son opcionales y el trabajo que el estudiante complete no necesita ser devuelto a la escuela para su calificación o crédito. Si cree que necesita más recursos, consulte el Portal de la Familia EmpowerED de UCPS en nuestro sitio web <a href="https://www.ucps.k12.nc.us/domain/2917">www.ucps.k12.nc.us/domain/2917</a>.

¡Esperamos que se mantengan seguros y a salvo!

## 4th Grade Fiction Reading Choice Board

April 20 - May 1

#### Fiction - a story book

Read for 20 minutes from a fiction text of your own or by reading the text that is attached. Make sure to ask your child some questions about what they read. After reading, choose an activity below.

Talk About Reading	Write About Reading	Play With Words
Talk to an adult, friend or sibling about a character in the story. What kind of person is he/she? If you met the character, would you be friends with him/her? Why or why not?	Choose a character from a fiction text. Write a message that the character would post on social media (Twitter, Facebook or Instagram, etc).	Find three words that are used in an interesting or different way. (Ex: Leah fixed dinner. Fixed here does not mean repairing something that is broken, but instead preparing something.)
Talk about the problem in the story. How was it solved? What could another solution have been? How would this affect the ending of the story?	Create a story map of the main events that happened in the story. Include the setting, character(s), problem and solution.	Find two examples of figurative language in the text. Write down each phrase and its meaning.
Talk about the story setting. Select another story setting and discuss how it might change the way the story goes.	Create a detailed illustration of an important event from the story. Write why you chose this event to illustrate.	Select a word from your reading. Illustrate the word, give one synonym, one antonym and a simple definition.

#### Create:

Write a play or act out a scene from your own story or the passage provided. Use props, costumes, etc. Think about what the character(s) would say and do and include this in your scene. If you have permission from a parent, practice acting out the scene again and again until you get it how you want it, then video the scene for others to watch.

## **Making the Team**

Readworks.org

Tick-tock. Tick-tock.

Andreas watched the clock. It seemed to be moving very slowly. This was his last class of the day-biology. Usually, Andreas liked biology. He liked learning about all of the different plants. He liked understanding how animals survived in the wild. Usually, Andreas didn't want biology class to end. But today was different. Today there were tryouts for the basketball team after school.

There was only one thing that Andreas liked more than science: basketball. Andreas had been practicing for months. His parents had put a basketball hoop in the backyard. Every night after dinner, Andreas went outside and practiced his shots. He loved the feeling of the basketball in his hands and the sound the ball made when it sailed through the net. Swish! Andreas thought it was the best sound in the world.

"Psst! Andreas!"

Andreas's best friend, Tyrell, was trying to get his attention.

"I feel like this class will never end," said Tyrell.

"I know," said Andreas. "I'm so nervous."

"You shouldn't be nervous," said Tyrell. "You're the tallest kid in fourth grade."

"Height doesn't matter," said Andreas. "What matters is if you can play the game. You're a much better shooter than I am."

Tyrell and Andreas had been best friends since kindergarten. Tyrell loved basketball, too, but his favorite team was the New York Knicks. Andreas's favorite team was the Chicago Bulls. The only time Tyrell and Andreas fought was when the Knicks were playing the Bulls. Tyrell was also trying out for the basketball team that afternoon. Andreas was glad he'd have his best friend by his side.

Suddenly the bell rang and class was over. Andreas and Tyrell walked down to the gym. When they got there, Andreas's heart sank. There were at least 60 boys crowded onto the bleachers.

"Oh no," said Tyrell. "I never imagined there would be so many kids trying out for the basketball team."

Andreas knew the basketball team only had room for 20 people. That meant two-thirds of the kids there wouldn't make the team. Andreas and Tyrell looked at each other. What if only one of them made the team? That would be worse than not making the team at all.

The coach blew a whistle and the tryouts began. Andreas and Tyrell were separated into different groups. First Andreas ran sprints across the gym, over and over until his legs felt weak, and he was out of breath. Then, the coaches divided them into teams to play against one another. As soon as he felt his hands on the basketball, Andreas felt better. This was why he loved the game. All the nights of practicing paid off as he took shots from the 3-point line. Swish! Swish! Not all of the shots went in, but a lot of them did.

Tyrell was waiting outside when the tryouts were over.

"How did it go?" Andreas asked.

"I don't know...I think it went alright," said Tyrell. "The coach said he's posting a list of who made the team tomorrow before school. So I guess we'll find out soon enough."

Andreas felt his stomach tighten. He knew he had played well, but was it good enough?

"It's okay," said Tyrell. Tyrell had known Andreas for so long that he could see when Andreas was upset. "I'm sure you made it. I just don't know if I did." "Playing on the basketball team wouldn't be any fun without you," said Andreas.

They walked the rest of the way home in silence.

The next morning Andreas couldn't eat any of his breakfast. "Can we go to school early today?" he asked his mother. "I can't wait anymore."

His mother nodded and reached for the car keys. Five minutes later, Andreas was standing in front of the gym. He looked at the list. Tyrell's name was at the very top-he had made it! Andreas's eyes moved down the list, slowly, reading every name. His eyes began to sting. He didn't see his name anywhere.

"Andreas!" He heard Tyrell's happy voice. "We made it!" "What do you mean?" asked Andreas. "My name's not on there."

"Yes it is! Didn't you look at the second sheet?" asked Tyrell.

Andreas looked back at the list. Tyrell was right; there was a second sheet of paper underneath. Andreas lifted up the first sheet of paper and saw his name at the very top. He turned and gave Tyrell a high-five. They were going to be on the basketball team together.

ReadWorks\*

## **4th Grade Nonfiction Reading Choice Board**

April 20 - May 1

#### Non-Fiction - a teaching text

Read 20 minutes by choosing a non-fiction text of your own or read the text/passage attached. Make sure to ask your child some questions about what they read. After reading, choose an activity below.

Talk About Reading	Write About Reading	Play With Words
Tell someone what you already knew about the topic before you began reading. Tell them something new you learned in your reading.	Create your own diagram, illustration or drawing using an idea or topic from the story. Label and/or caption it.	Make a list of new words you learned in your nonfiction reading. In your own words, write what they mean.
Tell someone why you think the author wrote this text. Explain why you think that. Use evidence from the text in your explanation.	Write down two questions you have after reading that you could do more research about.	Choose a word from the text and write an acrostic poem that describes the word.
Give a summary of the main ideas in the story. Include one or two supporting details for each idea.	Select one text feature that you noticed in your reading. Explain in writing how the text feature helped you understand the topic better.	Create a "What am I?" riddle for a vocabulary word from your text.

#### **Create:**

Use materials from around your home OR a detailed drawing to create your own animal. Explain how your animal adapts to the environment in some way. Use labels and captions to make your ideas clear.

## Animal Instinct Readworks.org

Hours before giant waves pounded coastlines in South Asia, many animals started behaving strangely. In Sri Lanka, elephants trumpeted frantically and fled to higher ground. Bats and flamingos deserted low-lying areas. Many other animals escaped unharmed.

Wildlife experts are amazed that many animals survived the tsunami. The series of huge waves killed thousands of people in South Asia and East Africa in 2004. Experts say animals might have sensed the approaching waves and moved to higher ground.



Philippe Desmazes/AFP/Getty Images
Elephants' sharp senses may have warned them about the tsunami.

"I think animals can sense disaster. They know when things are happening in nature," said an official at the national wildlife department in Sri Lanka.

#### **More Wild Stories**

Other stories of odd animal behavior before the tsunami have also surfaced. Giant waves flooded low-lying parts of Yala National Park in Sri Lanka, uprooting trees and killing hundreds of people. Wildlife officials reported, however, that few animals died. The park is home to hundreds of animals, including elephants, monkeys, leopards, tigers, deer and water buffalo.

In Thailand, elephants carrying tourists from Japan bolted for the hills, and other elephants broke free of their chains. In one fishing village, nearly 1,000 locals escaped safely after birds squawked madly.

#### Making "Sense" of It

Why might animals have known trouble was on the way? Forget special powers. Instead, experts say that animals have better senses of hearing, smell and sight than humans do. Those sharp senses help warn animals when natural disasters, such as volcanic eruptions or earthquakes, are about to happen. "It doesn't surprise me that animals had an early warning of the tsunami," animal expert Michael Dee of the Los Angeles Zoo told Weekly Reader. "The senses of certain species are far stronger than what any human has." Dee points out that dogs, for example, have a stronger sense of smell than humans and that cats can see better in the dark than people.

Scientists say that animals might have felt the vibrations from the earthquake that set off the tsunami. In addition, many animals, including elephants, pigeons, and dogs, can also pick up infrasound. That is a sound that is too low in pitch for humans to hear. "Elephants can hear or feel other elephants grumble up to 2 miles away, so they probably felt the earthquake," said Dee. "Their first instinct would be to move away from the direction of the sound." An instinct is a natural, untaught behavior or reaction.

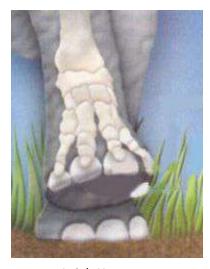
Before the tsunami struck, animals may have started to flee because they saw other creatures running. "Animals take their cues from other animals," said Dee.

#### **The Mystery Continues**

How animals sense danger has fascinated people for centuries. Most scientists are quick to point out, however, that nothing has ever been proven. Will animal instincts be used to create a warning system about natural disasters anytime soon? "I wouldn't count on [it]," said Dee. In the meantime, animals are helping out in other ways. For example, elephants are assisting in the cleanup of areas hit by the tsunami.

#### **Hearing With Their Feet**

Scientists say that elephants can pick up vibrations from earthquakes through their broad feet. Elephants' toenails are in the skin and not attached to the toes. Elephants' soles have sensitive foot pads that detect vibrations, such as those from an earthquake. That signals elephants to move to more stable ground.



Leigh Haeger

## 4th Grade Math Choice Board

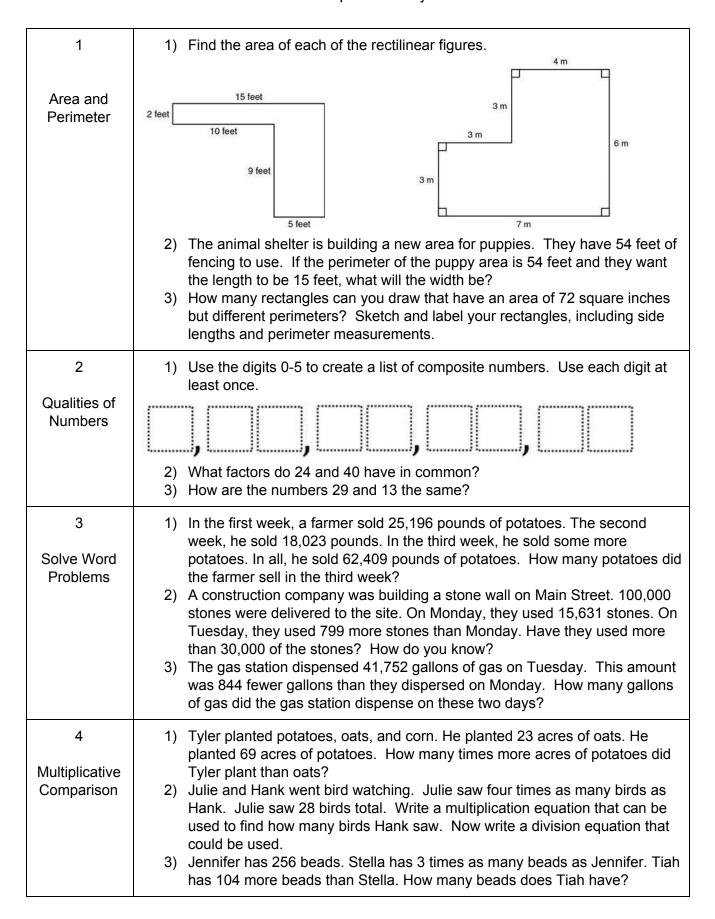
April 20 - May 1

The activities below can be used by all students in grades K-5 in addition to the grade level work provided. Please note additional challenges for older students. The choice board is meant to be a fun way to explore math at home. Enjoy!

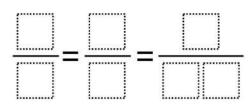
Create a math board game.  Make sure your game has directions, math questions, and all materials needed to play it. Try out your game with someone at home.	Go on a shape hunt. Look for shapes around you at home. Gather 10 objects and identify their shapes (can be 2D or 3D). Sort the shapes in some way. Share your thinking with someone at home.	Write a story problem to go along with your daily reading. Read a story or a chapter out of a book you've been reading. Write one math problem to go along with the story or chapter you read.
Measure a room at home. Use at least two different <i>creative</i> measuring tools. For example, how many shoes long is the room? How many pieces of paper long is it? Compare the lengths. For students in grades 4-5, calculate the perimeter and area of the room.	Write a math song. Write a math song to explain a math concept. Your song could be about shapes, fractions, graphing, addition, subtraction, multiplication, or division. Perform your song for your family. You may even choose to send your teacher a recording of your song.	Cook something with an adult. While you cook, think about all the math skills you are using. Write and solve one math story problem related to your experience.
Create a graph. Create a graph using items you find in your house. Your graph should have a title, a number scale, and at least two categories. Category examples: -Articles of clothing (# of t shirts and # of long sleeve shirts) - Types of books on your bookshelf	Create a daily schedule. Make sure your schedule has the start time and end time as well as what activity you are going to do at that time. For students in grade 3-5, find the elapsed time of the different activities in your schedule.	Write a word problem with an answer of 2. Use any operation and any problem type you want. Just make sure the answer to your problem's question is 2.  Challenge: Can you write another problem using a different operation and/or a different problem type? Don't forget two-step & compare problems!

## **4th Grade Math Practice**

April 20 - May 1



5 Multiplication	<ol> <li>Using the digits 1-9 only once, write a true equation. (Hint: you will not use one of the digits.)</li> </ol>
and Division	×=
	2) Using the digits 1-9 <b>only once</b> , what is the smallest whole number quotient (no remainder!) you can create?
	$\div$
	Challenge: Can you find the largest quotient? Think about what division means!
	3) How close can you get to 7000? Try multiplying 2 two-digit numbers to get as close to 7000 as you can. Challenge a friend - see if you are able to get closer to 7000 than him or her!
6 Forms of Numbers	<ol> <li>How many different ways can you represent the number 4,285?</li> <li>Write these numbers in standard form and read them:         <ul> <li>a) 3 ten-thousands, 26 thousands, and 7 tens</li> <li>b) 48 thousands, 9 hundreds, and 34 ones</li> <li>Now subtract to find the difference between the two numbers.</li> </ul> </li> <li>Roll a dice five times, recording the number here:,</li></ol>
7 Base Ten Number System	<ol> <li>The town of Trenton has a population of 6,984. The town of Caldwell says they are about 10 times larger because their population is 70,103. Do you agree? Explain your thinking.</li> <li>The value of the 6 in the number 6,173 is how many times larger than the value of the 6 in the number 167? Write a new number where the 6 in 6,173 is 10 times larger than your number.</li> <li>If you have 280 ten-dollar bills, how much money do you have? Explain your answer with words and a model or drawing.</li> </ol>
8 Solve Word Problems	<ol> <li>The principal is buying popsicles for field day at school. The popsicles come in boxes of 8. There are 749 students at the school. How many boxes will the principal need to buy so that each student gets a popsicle?</li> <li>The Turner family uses 548 liters of water per day. The Hill family uses 3 times as much water per day. How much water does the Hill family use per week?</li> <li>Kristy bought 134 roses at the farmer's market and 145 roses at the florist to decorate the tables at her restaurant. She decides to put 7 roses in each vase to give her enough vases full for each of her 40 tables. Will this work for Kristy's restaurant decorations? Why or why not?</li> </ol>
9 Equivalent Fractions	1) Using the digits 1-9 fill in the boxes to make three equivalent fractions. Remember you can only have denominators of 2, 3, 4, 5, 6, 8, 10, 12.



- 2) Draw four different models equivalent to the fraction  $\frac{4}{6}$  . These can be area models (shapes), length models (number line) or sets of items.
- 3) My cousins all play sports for different parts of the year. Use the table to answer the questions.

Child	Fraction of the Year
Becky	$\frac{2}{3}$
Olivia	<u>5</u>
Spencer	$\frac{4}{6}$
Jamie	$\frac{1}{4}$

Which child plays sports the largest part of the year? Which child plays sports the smallest part of the year? Which two children played the same amount of the year?

10

#### Comparing Numbers

1) Which is closer to  $\frac{1}{2}$ ? Explain your answer for each.

a) 
$$\frac{3}{4}$$
 or  $\frac{4}{6}$ 

a) 
$$\frac{3}{4}$$
 or  $\frac{4}{6}$   
b)  $\frac{5}{8}$  or  $\frac{5}{12}$ 

Write a number to fit each statement. Adjust your number as needed with each quality.

- 2) Write a number more than 27,000 Write a number more than 27,000 but less than 59,200 Write a number more than 27,000, less than 59,200 with 4 thousands
- 3) Write a fraction more than  $\frac{4}{6}$ Write a fraction more than  $\frac{4}{6}$  but less than  $\frac{9}{10}$

# 4th Grade Math ANSWER KEY

1		75 square feet; 33 square meters 12 feet There are several answers. Determine at least two. length=36 inches; width=2 inches; perimeter=76 inches length=18 inches; width=4 inches; perimeter=44 inches length=12 inches; width=6 inches; perimeter=36 inches length=24 inches; width=3 inches; perimeter=54 inches length=9 inches; width= 8 inches; perimeter=34 inches
2	2)	There are many answers. Here are a few examples:     4, 12, 30, 45, 20     4, 50, 21, 32, 40     4, 15, 30, 25, 42  1, 2, 4, 8  They are both prime.
3	2)	19,190 Yes. They have used 32,061 stones in the two days. 84,348
4	2)	3 times more $h \times 4 = 28$ $28 \div 4 = h$ 872 beads
5	2)	There are many answers. Some examples are: $56 \times 39 = 2184$ $62 \times 87 = 5394$ $42 \times 38 = 1596$ $23 \times 69 = 1587$ smallest quotient: $126 \div 9 = 14$ (largest: $987 \div 1 = 987$ ) The closest is $96 \times 73 = 7008$ . This does not have to be solved exactly but encourage students to adjust numbers using reasoning to get as close as possible.
6	2)	There are many ways. Encourage students to write at least five different forms of the number. Samples include: 15 ones, 7 tens, 12 hundreds, and 3 thousands $4000 + 200 + 80 + 5$ four thousand two hundred eighty-five $(4 \times 1000) + (2 \times 100) + (8 \times 10) + 5$ a) $56,070$ b) $48,934$ difference is 7,136 answers vary based on digits rolled with the dice
7	2)	Actual answers will vary but students <u>should</u> agree because 6,984 is close to 7,000 and 70,103 is approximately 10 times larger. Make sure students discuss the value of the 7 in the two places.  100 times various answers but there must be a 6 in the hundreds place 2800 explanation and drawing need to be accurate - students should not draw ten 280 times; must use place value understanding

8	<ol> <li>94 boxes</li> <li>11,508 liters</li> <li>No. She can only make 39 vases with 7 roses in each. There are not enough left to fill another vase to make 40 total.</li> </ol>
9	<ol> <li>3/4 = 6/8 = 9/12</li> <li>answers will vary</li> <li>Olivia         Jamie         Becky and Spencer</li> </ol>
10	1) a) 4/6 b) 5/12 2) answers will vary 3) 7/8

## 4th Grade Science Choice Board

April 20 - May 1

Choose 1-2 activities to complete each week to review the Adaptations and Earth Materials units.

#### **Tongue Twister**

Create a tongue twister using key vocabulary from the Adaptations unit. A tongue twister is the repetition of the same beginning sound. For example: "Sally sells seashells by the seashore." Then, practice saying it aloud 5 times as fast as you can without making a mistake.

#### **Mystery Animal**

Devise 5 clues describing a mystery animal you learned about during the Adaptations unit. Order the clues from least obvious to most obvious. Then, share the clues one at a time with family members. See which family member can determine your mystery animal in the fewest clues possible.

#### **Graffiti Wall**

Display questions, work, or images that demonstrate how some organisms in an environment are beneficial to each other and how some are harmful to each other. Then, have your family members use sticky notes to leave written thoughts about the information contained on your wall.

#### Fossils Song

Think about your favorite song. Change the lyrics of the song to make them about fossils. Include information that shows how fossils provide us information today about what life was like long ago. Sing this song to your family members

#### Newspaper Ad

Design an ad that persuades people to visit an archaeological dig site. Include the schedule of events, the plant and animal fossils they may see and what they can expect to learn from this adventure. Share your ad with your family members and ask them what else you should include to make this ad as convincing as possible.

#### Rock Scavenger Hunt

Collect rocks in your yard and in your neighborhood.
Organize them in various ways. These may include hardness, color, luster, cleavage, or streak. Then, draw a sketch of each rock and explain why you organized it in the way you did.

#### Play with PlayDoh

Use various colors of PlayDoh to create layers of Earth Material. Use the PlayDoh to demonstrate your understanding of the difference between metamorphic, sedimentary, and igneous rock. Then, sketch your creation and explain why differences between each type of rock.

#### **Phases of the Moon with Oreos**

Set aside 8 Oreo cookies. Use them to simulate the various phases of the moon (New Moon, Waxing Crescent, First Quarter, Waxing Gibbous, Full Moon, Waning Gibbous, Third Quarter, Waning Crescent). Organize them into the correct order and label them accordingly.

#### **Diary Entry**

Pretend you are an astronomer. Write 2 different diary entries that:

- Explains the difference between rotation and revolution.
- Explains why the seasons are opposite of each other in the Northern and Southern Hemisphere.

## 4th Grade Social Studies Choice Board

April 20 - May 1

Choose 1-2 activities to complete off of this choice board to review your Social Studies knowledge.

#### Letter to the Governor

Draft a persuasive letter to our governor, advocating for a new state symbol to be added to North Carolina. Explain in one-two paragraphs why the state symbol you selected should represent North Carolina and why it would be the best choice.

#### **Brochure**

Design an informational brochure about our state history and culture. Make sure you include reasons why people should visit North Carolina, along with significant locations people should visit in our state.

#### **Comic Strip**

Choose a significant event you have learned about in North Carolina history that occurred during the Colonization era, or during the American Revolution.

Create a comic strip that describes this event. Make sure you include pictures, dialogue, and captions to explain what is happening.

#### Interview

Pretend you are interviewing a
Native American from a local
North Carolina tribe (Cherokee,
Lumbee, Catawba, Tuscarora)
during the colonization era. Write
a list of five interview questions
to ask that tribe member, then
give possible answers they may
have given in response to your
questions

#### **Qualifications for Senators**

Review the current requirements for someone in our state to become an elected senator:

Each Senator, at the time of his election, shall be at least 25 years of age, shall be a qualified voter of the State, and shall have lived in the State as a citizen for two years and in the district for which he/she is chosen for one year immediately preceding his election. (Article II, Sec. 6- NC Constitution)

Write a new job description with at least five requirements you believe a senator in our state should have.

#### Song Writer

"Yankee Doodle" is a famous song written about British soldiers that fought during the Revolutionary War. Now it's your turn to write a song about North Carolina and the role it played during the American Revolution! Compose a song with lyrics that describe North Carolina's role in the American Revolution. Make sure you include significant people and events in your song lyrics.

#### **Crossword Puzzle**

Choose 5-6 North Carolina State Symbols. Use these symbols to create a crossword puzzle.

Describe the state symbols you have chosen in the clues you give.

#### **Game Maker**

Create a game that would help other students review many of our existing state symbols and monuments. Write a directions page for your game, and an answer key so that others will know how to play it.

#### **Culture Collage**

Choose a region of North Carolina (Coastal Plain, Piedmont, Mountain). Use magazines or create your own drawings to make a collage of pictures and/symbols that represent that region.