

**School is out, but learning continues!**



**GRADE 8**

**ACADEMIC ENRICHMENT - DECEMBER 2016**

**Clayton County Public Schools**



# Clayton County Public Schools

## Chief Academic Office

1058 Fifth Avenue Jonesboro, Georgia 30236 (678) 817-3060 FAX (678) 817-3062

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**LUVENIA JACKSON**  
Superintendent of Schools

**Folasade Oladele, Ed.D.**  
Chief Academic Officer

Dear Parents:

The Georgia Milestone Assessment System (GMAS) is a more demanding assessment system. The assessment system measures student performance on more rigorous curriculum based on the Georgia Standards of Excellence. The Division of Teaching and Learning is providing academic enrichment tasks for students to complete during winter break in order to support their learning, and to ensure that they continue to reinforce their learning. The assignments focus on writing because constructed response and extended response questions create a more rigorous assessment of student writing ability in all grade levels. This more rigorous application of writing in all content areas is a part of Georgia Milestones.

The assignments will include grades 1-8, and high school EOC tested courses, and will be provided in all tested areas, English language arts, math, science, and social studies. Students are encouraged to read the assignments, complete the assessments and return to school in January with their finished work for teachers to review and support them in areas of need. Parents are encouraged to assist students with the completion of tasks if needed. Enrichment packets can be found on the Clayton County Public Schools website ([www.clayton.k12.ga.us](http://www.clayton.k12.ga.us)) and through the CCPS mobile app.

We encourage you to visit the GADOE website where you can find information on Georgia Milestones, including a helpful video that explains the purpose for the testing system. Also, you will find additional resources on the Clayton County Public Schools website, including a Parent's Guide to the Georgia Milestones, translated in Vietnamese, Spanish and English.

Thank you for your attention to this matter, and best wishes for the success of our children.

Regards.

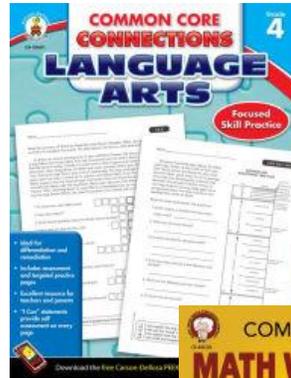
Folasade Oladele, Ed.D.

## Academic Support Resources for Parents

- There are **Common Core** workbooks for Mathematics and Language Arts that can be purchased from Carson-Dellosa Publishing.
- Workbooks are provided for Grades 3-8 at a cost of \$9.99 each.
- Workbooks can be purchased directly from the publisher's website or from Barnes and Noble.

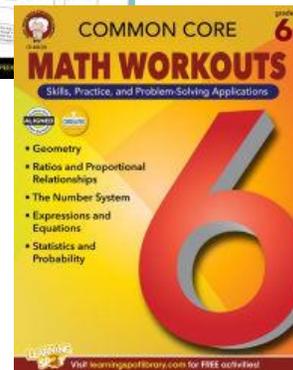
- Carson-Dellosa Publishing website

- Grades K-5
  - [Math Workbook](#)
  - [ELA Workbook](#)
- Grades 6-8
  - [Math Workbook](#)
  - [ELA Workbook](#)



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- Grades 6-8
  - [Math Workbook](#)
  - [ELA Workbook](#)



Use this passage to answer question that follows.

### Tranquility Falls

Tranquility Falls glittered like fine sugar in the distance as Brayden and his father pulled up to the trailhead. Brayden opened the car door and recoiled at the sharp scent of pine. His juice pouch gurgled and went flat as he slurped the last of its contents.

Brayden could not muster his usual enthusiasm for their annual father-son camping trip. The day before, Brayden's parents had broken the news to him that he would be spending the remainder of his vacation studying algebra in summer school. Six weeks of finding the value of  $x$ . No skateboarding with his friends or swimming at the community pool. Brayden chewed on his straw, the empty juice pouch hovering in front of his face. He hoisted his backpack and slung its straps over his shoulders.

"Leave your trash in the car or we'll just have to carry it back—pack it in, pack it out," yelled his father, already twenty yards up the trail. The car chirped as his father locked it too quickly for Brayden to do as he was asked. "Let's go, Slowpoke! First night festivities await!" Brayden groaned, stuffed the juice pouch into his back pocket, and followed his father up the trail.

Six miles from the trailhead, they began to set up camp in the forest along the Tranquility River. It had been a long, tiresome hike, and Brayden now struggled to set up his new tent until his patience was spent. When his father tried to help, Brayden snapped. "I don't need your help! Just because I don't get algebra—it doesn't mean I'm stupid!" Brayden hurled his tent poles onto the heap of twisted nylon and stormed off toward the river.

Upriver, Brayden sat on his favorite boulder and watched the sun sink beneath the trees. The juice pouch in his back pocket crinkled. He grabbed the pouch and threw it at the water as hard as he could. He sighed and turned to head back to the camp.

By the time Brayden returned to the camp, it was pitch black, save for the light of the campfire that had guided him back. Brayden was silent as he ate his dinner and endured his father's cheesiest tradition, the Proprietary and Confidential first-night campfire story.

"Native Americans say that Bear was king of this land once," his father began in a hushed voice, "as his father had been king before him. He had a great temper; he slept in the open and was proud, vain, and greedy. He left a trail of waste and wreckage everywhere he went as a warning to all who crossed his path. One day Coyote dared to approach him and said, 'Bear, I will have pups soon, and it breaks my heart to think they will have to live as I do, in the wake of your thoughtlessness!' Bear roared with rage and tossed Coyote aside by her ears, but as he did this, he saw behind her a river flowing not with water, but with his own thoughtless waste. Ashamed, Bear dug a den and stayed in it for five months, eating mostly berries, plants, and fish when he emerged. Forever onward to this day, the bears eat this way, and all stay in their dens for five months a year in observance of their former king's great realization: the land is not ours to own, but rather just to borrow."

The next morning, Brayden went to the river to splash cold water on his face. Out of the corner of his eye he saw a silver flash in the water: his empty juice pouch was stuck in some low-hanging branches. His father's story echoed in his mind and made him think about his own thoughtlessness. He grabbed the juice pouch and slowly walked back to the camp.

When he arrived at the camp, he saw his father picking up the trash from breakfast. "I'm sorry, Dad. I made a mistake," Brayden sighed. "I've just been . . . mad . . ." His father gave him a look of understanding and patted him affectionately on the back.

That evening before dinner, as Brayden walked to his boulder, a blur of rust-colored movement caught his eye. He turned and saw a coyote directly opposite him on the other side of the river. The beautiful animal stared at Brayden for a brief moment. Then she inclined her head toward him and seemed to nod, before turning away and disappearing into the purple twilight.

**What is the MAIN theme of "Tranquility Falls"? Use details from the story to explain its development over the course of the text.**

**Rewrite the first three paragraphs of the story from the father's point of view. Be sure to include details that clearly show how the story changes when experienced from the father's viewpoint.**

Standard: ELACC8W2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

In this section, you will read about the ongoing debate over the use of genetically modified (GM) food.

What are the benefits and dangers of producing and consuming foods that have been genetically modified? You will write an argumentative essay in your own words supporting either side of the debate in which you argue for or against the use of GM food.

Before you begin planning and writing, read the two texts:

1. "GM Food Saves Lives"
2. "What We Don't Know About GM Food Can Kill Us"

As you read the texts, think about what details from the texts you might use in your argumentative essay.

Now write your argumentative essay. Be sure to:

- Introduce your claim.
- Support your claim with logical reasoning and relevant evidence from the texts.
- Acknowledge and address alternate or opposing claims.
- Organize the reasons and evidence logically.
- Use words, phrases, and clauses to connect your ideas and to clarify the relationships among claims, counterclaims, reasons, and evidence.
- Establish and maintain a formal style.
- Provide a concluding statement or section that follows from and supports the argument presented.
- Check your work for correct usage, grammar, spelling, and capitalization.

## **GM Food Saves Lives**

**by Rebecca Wilson**

Genetically modified (GM) food was introduced to the citizens of the United States in 1994. Since then, the use of genetics on produce and animals has become so widespread that each person in the United States is most likely eating GM food daily. A primary reason for its popularity is how beneficial it is to people and businesses.

### **What is genetic modification?**

Plants and animals naturally go through a process of selection for survival. Features that make the plant or animal more likely to live are passed along, and features that are not advantageous are weeded out. These genetic mutations occur over generations, though, making improvement a slow-moving process. Scientists discovered that they could improve specific characteristics quickly by introducing foreign genes into an organism, such as those from plants, animals, and even viruses. For example, exposing a plant to a certain virus can make it more resistant to disease. Transferring genes from cows to pigs can help the pigs create more milk for larger litters of piglets. The targeting of genes allows scientists to bring out the specific traits of a product that will make it more successful.

### **Uses of GM foods**

There are three main reasons for genetically modifying food: to produce more food at lower cost, to increase the health value of the food, and to make the food more desirable. When crops are modified to withstand disease and drought, it takes fewer resources to produce them, and fewer crops are lost. But altering food goes much further than this. Scientists are also able to make food more nutritious. For example, Golden Rice is infused with vitamin A in the hopes of saving the lives of children suffering from vitamin A deficiencies. However, the earliest uses of GM food are still the most popular. Genetic modification makes food look and taste better. Tomatoes stay ripe longer. Apples have fewer bruises. Strawberries grow larger.

### **Safety**

Opponents of GM food say that changing an organism's genetic code is dangerous. They say that changes to a plant's durability can create super weeds that kill crops and that altering nutrition values could cause health problems for the people who eat the food. Yet thousands of research studies have shown no evidence that GM food causes harm, either to the environment or to people. It's safe, effective, and needed in a time when food shortages are skyrocketing.

**What We Don't Know About GM Food Can Kill Us**  
**by Daniel McLeod**

Humans have a history of moving forward with great ideas—until they realize that those ideas weren't so great. Back in the 1940s, people around the world started using a miracle insecticide called DDT ("dichlorodiphenyltrichloroethane"). It killed every annoying insect out there! It was helping to eliminate malaria-carrying mosquitoes and life-threatening spiders. DDT was the best insecticide ever—until people realized the severe damage it was doing to the environment. It took over thirty years of using the chemical agent for scientists to verify the problems and for countries to ban DDT's use. Only now, seventy years since it became popular, are some of the species negatively affected by it finally regaining a foothold on life.

Genetically modified (GM) food is our generation's DDT. Just as before, people have jumped headlong into the process of making food better, stronger, and different through changes to an organism's genetic code. Scientists are altering plants and animals at their most fundamental levels with no regard to the effects we might see in twenty, thirty, or even seventy years from now. True, this process is producing food at a lower cost and higher rate, something this world desperately needs, but at what cost?

There have been documented cases of genetically altered crops affecting the durability of weeds that compete for the crops' resources. It's believed the genetic mutation of the crops spread to the weeds. These weeds, called super weeds, are aggressive and resistant to the chemicals used to kill them and now threaten the crops' growth. Another current problem is the reduction in insects such as butterflies and bees, which pollinate flowers. Crops designed to produce natural insecticides are killing off these important creatures. The ecosystem is thrown off balance without them.

Those problems are nothing compared to the ones we don't know about yet. How will these modifications affect the humans who consume this food over a lifetime? How will unforeseen mutations affect the food? These questions can't be answered right now since we won't see the effects for decades.

The biogenetics companies that produce GM food say the food has been tested by thousands of studies. What they don't say, however, is that they are the ones who funded the studies. Their financial interest in studies showing that GM food is safe compromises the believability of the studies. How might their corporate dollars have affected the results the scientists are reporting?

The plain truth is that we don't know how GM food will affect humans, plants, and animals in the future. We shouldn't be risking our lives by eating altered food without knowing whether or not genetic modification is another DDT.

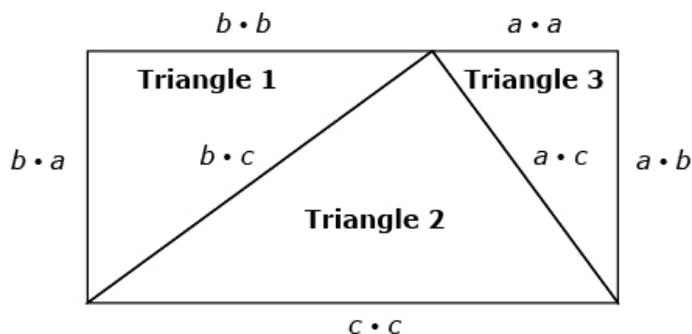
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## 8<sup>th</sup> Grade Mathematics

**MCC8.G.3** Describe the effect of dilations, translations, rotations and reflections on two-dimensional figures using coordinates.

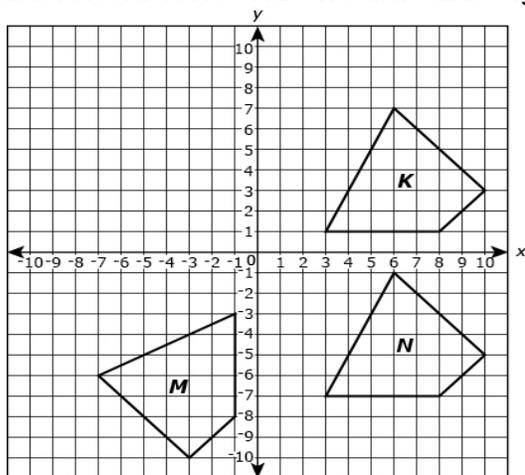
1. The rectangle shown is made up of three similar right triangles whose side lengths are proportional to the lengths  $a$ ,  $b$ , and  $c$ .

- Triangle 1 has side lengths  $b \cdot a$ ,  $b \cdot b$ , and  $b \cdot c$ .
- Triangle 2 has side lengths  $a \cdot c$ ,  $b \cdot c$ , and  $c \cdot c$ .
- Triangle 3 has side lengths  $a \cdot a$ ,  $a \cdot b$ , and  $a \cdot c$ .



Define a sequence of transformations that will take Triangle 1 to Triangle 3. Explain your answer.

2. Figures  $M$  and  $N$  are each transformations of the figure  $K$ . Explain the sequence of transformations that would take figure  $K$  onto figure  $M$ .



## 8<sup>th</sup> Grade Physical Science

### Standard

**S8P2. Students will be familiar with the forms and transformations of energy.**

**d. Describe how heat can be transferred through matter by the collisions of atoms (conduction) or through space (radiation). In a liquid or gas, currents will facilitate the transfer of heat (convection).**

### Questions:

**A. Conduction can occur in solids, liquids, and gases. Explain why solids and liquids are better conductors than gases.**

**B. Explain why radiation usually passes through gases more easily than through solids and liquids.**

# 8<sup>th</sup> Grade Social Studies

## Standard

**SS8CG1 The student will describe the role of citizens under Georgia’s constitution.**

a. Explain the basic structure of the Georgia state constitution.

This task has more than one (1) part. Read each part carefully and respond.

**Be sure to complete ALL parts of the task. Use details from the chart AND your knowledge of social studies to support your answer. Answer with complete sentences, and use correct punctuation and grammar.**

*The list below outlines the structure of the United States Constitution and the Georgia State Constitution.*

United States Constitution	Georgia State Constitution
<ul style="list-style-type: none"><li>• Preamble</li><li>• Article I—Legislative branch</li><li>• Article II—Executive branch</li><li>• Article III—Judicial branch</li><li>• Article IV—Relationship between states and federal government</li><li>• Article V—Amendment process</li><li>• Article VI—Supremacy of the U.S. Constitution</li><li>• Article VII—Ratification process</li><li>• Bill of Rights and other amendments</li></ul>	<ul style="list-style-type: none"><li>• Preamble</li><li>• Article I - Bill of Rights</li><li>• Article. II - Voting and Elections</li><li>• Article III - Legislative Branch</li><li>• Article IV - Constitutional Boards and Commissions (<i>sets up government bodies such as Public Service Commissions, State Transportation Board, and Board of Pardons and Paroles</i>)</li><li>• Article V - Executive Branch</li><li>• Article VI - Judicial Branch</li><li>• Article VII - Taxation and Finance (<i>Authorizes power to tax, and purposes and methods of taxation.</i>)</li><li>• Article VIII – Education</li><li>• Article IX - Counties and Municipal Corporations</li><li>• Article X - Amendments to the Constitution</li><li>• Article XI - Miscellaneous Provisions</li></ul>

### Part A

Describe two similarities between the Georgia Constitution and the U.S. Constitution and explain how they demonstrate similarities between the state and federal governments.

### Part B

Describe two differences between the Georgia Constitution and the U.S. Constitution and explain how they demonstrate differences between the state and federal governments.