### All Activities Finalized

**Somerset County Public Schools**  
**Fourth Grade Learning Activities- WEEK 5**

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<th>Name: _____________________</th>
<th>Teacher's Name: _____________________</th>
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#### Reading/Lang. Arts

**Activity 1:**  
Read “Amusement Park Motion” and look for cause and effect relationships. The **cause** is why something happens and the **effect** is what happens.

Example:  
**Cause:** The weather was rainy and cool.  
**Effect:** The children played inside all day.

On a separate sheet of paper, write 5 cause and effect relationships you found in the text.

#### Math

**Activity 1:**  
Subtracting Across Zeros- Solve the following problems on a separate sheet of paper.

1. $4,000 - 1,374 = $  
2. $7,000 - 5,613 = $  
3. $8,005 - 732 = $  
4. $6,000 - 2,907 = $  
5. $3,000 - 2,383 = $  
6. $9,000 - 320 = $ 

#### Science

**Activity 1:**  
Read the article “Beneath Our Feet: The 4 layers of Earth.”

Using the article, answer the comprehension questions attached.

#### Social Studies

**Activity 1:**  
Read the article “Regions of Maryland.”

Using information from the article, answer these questions on a separate sheet of paper about the Appalachian Mountain Region:

1. What landform covers most of the Appalachian Mountain Range?  
2. How does this landform differ from the landforms in our region, Atlantic Coastal Plain?  
3. Which profession would do well in this region:

#### Fine Arts

**Activity 1:**  
Go on a Rainbow Walk with a parent or family member.  
Who can find the most items that match each color of the rainbow?

ROY G. BIV can help you remember all of the colors (red, orange, yellow, green, blue, indigo, violet)
lifeguard, ski instructor, or factory worker? Explain your reasoning.

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<td><strong>Activity 2:</strong> Reread “Amusement Park Motion” and pay attention to the pictures in your head. Choose a paragraph or two from the text and draw a detailed, full page illustration on a separate sheet of paper. Use information from the text for your drawing. Add color and speech bubbles to illustrate what the text says.</td>
<td><strong>Activity 2:</strong> Using the same paper you used in Activity 1, solve the following word problems. 1. A scuba diver finds a treasure chest in the ocean. When she opens it up, she discovers that it is filled with 3,567 gold coins and 1,793 silver coins. How many coins does the chest contain? 2. The treasure chest also contains pearls. There are 1,356 white pearls and 562 black pearls. What</td>
<td><strong>Activity 2:</strong> Reread “Beneath Our Feet: The 4 layers of Earth.” On a separate sheet of paper, use the information from the text, and write down one important fact you learned about each layer.</td>
<td><strong>Activity 2:</strong> Reread the article “Regions of Maryland.” Using information from the article, answer these questions about the Atlantic Coastal Plain: 1. Name three animals that live in the coastal plain waters. 2. Which characteristics of the Atlantic Coastal Plain make it a good place to farm? 3. Which profession would do well in this region: surf instructor, logger, or politician (like the</td>
<td><strong>Activity 2:</strong> Self-Portrait from Nature -Look in a mirror so you can accurately capture your features. -Using a shoe box or other container, go outside and gather items to use in your self-portrait like pine cones, rocks, leaves, etc... -Experiment putting together different objects to make your face, eyes, hair, etc. -Once you’ve assembled a look you like, glue or tape your self-portrait on a sheet of paper or poster board.</td>
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| is the total number of pearls found in the chest? | With the coins and pearls, what is the total amount of treasure the scuba diver found? | governor)? Explain your reasoning. | If you do not have glue or tape at home, feel free to draw your self-portrait using things from nature to complete the drawing. **Examples:**

Discuss the following questions with a parent or family member:

- Why did you pick certain items?

- Are you happy with the results?

- What do you like best about your self-portrait? |
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<td><strong>Activity 3:</strong> Verb Hunt: Scan the text “Amusement Park Motion.” and look for action verbs. An <strong>action verb</strong> is a word that you can do, for example run, jump, think, etc. Find at least 15 action verbs and write them on a separate sheet of paper. Look at your list of verbs. Put a ✓ next to verbs that are past tense. (Hint: these words probably end in -ed)</td>
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<td><strong>Activity 3:</strong> Identify if each angle is an acute, right, or obtuse angle. <strong>Acute Angles:</strong> Measure less than 90 degrees. <strong>Right Angles:</strong> Measure EXACTLY 90 degrees. (Hint: The edge of a piece of paper is 90 degrees and can sometimes be recognized with a square). <strong>Obtuse Angles:</strong> Measure greater than 90 degrees and less than 180 degrees. The activity is attached to the last page of this packet.</td>
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| **Activity 3:** **Weathering and Erosion:** **Weathering** is the breaking down of rock material by wind or water. **Erosion** is the movement of the broken rock material. On a piece of paper draw a t-chart with the following headings: 
| Weathering | Erosion |
| Identify if the following statements are an example of weathering or erosion. Write the statement under |
| **Activity 3:** Reread the article “Regions of Maryland.” Using information from the article, answer these questions about the Piedmont Plateau: 1. What is the fall line? 2. Why do more people move to the Piedmont Plateau than the other regions? 3. Which profession would do well in this region: waterman, coal miner, or white water rapids guide? Explain your reasoning. |
| **Activity 3:** Choose any piece of music to listen to. During the first listen, clap to the steady beat. Listen to it again and choreograph a dance that captures the mood of the piece. The mood is the sense of emotion the music makes you feel. Make sure each movement matches the steady beat of the piece. |

the correct heading in your chart.

1. pebbles move down a stream
2. The Grand Canyon
3. A driveway is cracked by tree roots.
4. Ice cracks roads and creates potholes.
5. Rain washes away small pieces of rock.
6. A hurricane blows the sand at the beach into the parking lot.

**There is an extra P.E. / Health activity in the packet**

**We encourage all students, PK - 5th, to keep track of their daily movement / exercise and food intake**
Amusement Park Motion

by Samantha Gross

Whiz! Bing! Thump! Ding ding ding ding ding!

When they're jumbled up together, the sounds at an amusement park can become a roar. At the arcade, there is booming music and the sound of quarters clinking into slots. Two girls jump in unison as they compete in a dance game. Underneath it all, there is the rustling of prize tickets being folded up and jammed into pockets.

At the amusement park, there is noise everywhere. And where there is noise, there is motion.

On a hot summer day, some children hide out from the sun inside the cool, dark bumper car arena. One grinning boy is behind the wheel of a bright blue car with a thick, black bumper. He's too young to drive a real car, but here, he can speed around the track.

The boy sets his sights on a long-haired girl in a green car. She's sitting still, caught in something of a bumper car traffic jam. Then he slams his car into hers. The collision stops his car in its tracks, but it sends her car sailing away from his. In the crash, his car's momentum shifts to her car. They both laugh.

Elsewhere on the track, two other cars careen toward each other. When they crash, both bumper cars reverse course. They bounce backward, away from the point of impact. One driver's head is knocked sideways, but these mini crashes are all fun. No one is hurt and no one is crying.

In the arcade nearby, something similar is happening at the pool table. One player slams her stick into the white cue ball. This sends the cue ball rolling quickly to the other end of the table, where it hits a striped ball. In an instant, the cue ball stops moving. The striped ball takes on its momentum and sails into the pocket.

Her opponent isn't having much luck at the pool table. He strikes the cue ball with the stick, but aims badly. The white ball bounces off three edges of the pool table until it finally slows and comes to a stop.

At the air hockey table, the action of the game is happening almost too quickly to follow. One player moves to protect her goal, but she's not holding onto her air hockey pusher tightly, and it goes flying out of her hand when the puck hits it.

In the next room two boys are playing ping pong. One boy is new to the game and is losing. Every time he hits the ball, he swings the paddle with too much force. The tiny ball has very little mass, but the boy's fast swing sends it off the table entirely. In this case, the boy is giving the ball too much momentum. Momentum, the quantity of
motion in a moving object, is determined by an object's mass and its velocity.

Most of the time, it's against the rules to hit things. But at amusement parks, certain kinds of hitting are part of the fun. The boy losing at ping pong doesn't mind, because he's enjoying hitting the ball as hard as he can. At the batting cage, a girl wearing a helmet hits a baseball with so much force that it makes a loud "crack!"

In the arcade, a man has paid two quarters to see how many small plastic animals he can whack with a rubber mallet. When he hits them, their heads sink back inside the machine. His daughter is sitting in front of another game. She's shooting small balls at stuffed monsters. If she hits one straight on, it falls over and she wins tickets.

At another game, players pay a dollar for the chance to hit some milk bottles with a ball. If they knock all the bottles over, they win a huge stuffed animal. This game is very hard to win even if players throw the ball with a lot of force, because some of the bottles are very heavy. Often, the heavy bottle wobbles but doesn't fall over.

One boy doesn't want to leave the amusement park, but he is exhausted. The batting cage, ping pong, and the milk bottle game have left him with a very tired right arm. All the speed and crashes in the bumper car were fun, but they tired him out as well. There's only so much motion most people can enjoy in a day. Eventually, even the most energetic children run out of momentum. It's time for them to climb into bed and be still.
We all call the Earth home, but did you ever think about what our home is actually made of? The planet is approximately 4,000 miles from surface to center, but what makes up those miles of Earth?

First, let’s start with the part of the Earth that we live on, the outermost layer called the crust. It is made up of loose material, like rocks, soil, and seabed. The crust is about five miles deep beneath the oceans and about twenty-five miles thick below the continents.

Beyond the crust is the mantle. The mantle extends approximately 1,800 miles deep into the Earth. It makes up about 85% of the total weight of the Earth’s mass. The mantle also has layers. The first 50 miles are hard rock. The next 150 miles are super-heated molten rock that is so hot it can flow under pressure, like tar. Underneath this heated layer is several hundred miles of solid rock. Think of the mantle like a peanut butter sandwich. You have the two pieces of bread and the peanut butter between them. In the mantle, we have two layers of solid rock with heated flowing rock between them.

Next is the outer core. This is about 3,000 miles beneath the Earth’s surface. The outer core consists of super-heated liquid molten lava. The lava is mostly made up of iron and nickel, which is why some geologists call it molten metal instead of molten rock. The outer core creates the Earth’s magnetic field.
The final layer is the inner core, which is 900 miles deep. Scientists believe the inner core is a solid ball of iron and other minerals. The temperature is extremely hot, somewhere between 9,000 and 13,000 degrees Fahrenheit. But because of the high pressure, the iron and other minerals cannot melt. The heat of the inner core is sometimes compared to the heat of the sun.

Are you wondering why the Earth is made up of four different layers? Many scientists believe that the Earth wasn’t always like this. They believe that when the Earth was formed, it was a hot ball made up of a mixture of rock and metals. They think that as the Earth cooled, the heavier parts sank to the inside and the lighter materials rose to the top. This would explain why the inner core is made up of iron and the crust consists of lighter rock and loose material.

Have you ever seen pictures of lava pouring down the sides of a volcano?

The molten rock inside the Earth’s mantle is called magma. When it erupts through a volcano, it’s called lava.

When it cools, the lava will harden and form new soil and rock, which will become part of the Earth’s crust.

As you walk around and enjoy the beauty on the Earth’s surface, think about the many layers beneath your feet. It takes all these layers to make up the planet we call home.
Beneath our Feet: The Four Layers of Earth
by Kelly Hashway

1. Where is the Earth's crust the thickest?
   a. below the continents
   b. beneath the oceans
   c. below the equator
   d. below the North Pole

2. How is the Earth's mantle like a peanut butter sandwich?
   a. The mantle has three layers, like a peanut butter sandwich.
   b. The mantle is sticky, like peanut butter.
   c. The top and bottom layers of the mantle are the thickest parts.
   d. Peanut butter sandwiches feel like the hard rocks found in the mantle.

3. Which layers of the Earth are made mostly of metals?

____________________________________________________________________________________________

4. Write the word true or false for each sentence.

________________ The inner core of the Earth is about the nine hundred degrees Fahrenheit.
________________ The inner core of the Earth is made of liquid iron and nickel.
________________ The Earth’s mantle lies directly below the inner core.

5. Explain how scientists believe the Earth’s four layers were formed.

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   d. Peanut butter sandwiches feel like the hard rocks found in the mantle.

3. Which layers of the Earth are made mostly of metals?
   The inner core and outer core are made of metals.

4. Write the word true or false for each sentence.
   false The inner core of the Earth is about the nine hundred degrees Fahrenheit.
   false The inner core of the Earth is made of liquid iron and nickel.
   false The Earth's mantle lies directly below the inner core.

5. Explain how scientists believe the Earth's four layers were formed.

   Many scientists believe that when the Earth was formed, it was a hot ball that was made of a mixture of different rock and metals. As it cooled, the heavier parts sank to the inside of the planet.
Regions of Maryland

Maryland is made up of three regions. The Appalachian mountain region is the furthest from the west. The Atlantic coastal plain region is the furthest from the east. In the middle of these two regions is the Piedmont plateau.

The Appalachian mountainous region is located in the western part of Maryland. The elevation of this region is over 1,000 feet with the highest point being 3,360 feet. Many forests cover the region. The Allegheny Mountains, which are part of the Appalachian Cordillera, are located at the western end of the region. There are ridges and valleys. Deep Creek Lake is located here. It is cooler in the Appalachian Region than in the rest of the state due to the mountains. It is a good area for the lumber industry due to the large number of trees. Apples grow well in this region due to the cold weather.

The Atlantic coastal plain is found in the southern and eastern parts of Maryland. It is made up of the east coast (where we live!) And part of the west coast too. This land is low and flat because it is very close to the water. On the west coast, some places rise to nearly 400 feet, especially the Calvert cliffs. Many salt marshes, rivers and streams make up this region. Chesapeake Bay and the Atlantic Ocean line the Atlantic coastal plain. Fishermen fish for crabs, fish and oysters in the waters. This region has the mildest temperatures in Maryland, which, along with flat land, makes it ideal for agriculture. Tourists visit the Delmarva Peninsula, made up of Delaware, Maryland, and Virginia, to go to the beach, especially Ocean City, Maryland.

The Piedmont Plateau is located in the central part of the state, between the Appalachian Mountains region and the Atlantic coastal plain. The elevation rises to between 800 and 1200 feet. The region begins at the drop line, a line of waterfalls created by the change in the type of land found within our state. There are hills, big rocks, rivers and rapids in this region. Farmland and climate are good for growing corn, wheat, and hay. Here are also many cities and factories, such as Baltimore and Annapolis, our state capital.