Dr. Sharon Gaston

- Dr. Sharon Gaston understands the power of literacy and its connection to all that we do.
- She is a Reading Specialist in Arlington Public Schools.
- Professional storyteller, author and illustrator. Dr. Gaston has written and illustrated over thirty books and plays that include a character education series and an alphabet series.
- Her favorite author is Dr. Seuss because his books are magical and hand children the key to literacy.
- Dr. Gaston earned a B.A. in Elementary Education, an M.A. in Reading Education and a Doctorate in Educational Leadership and Supervision.

Atleacia Gibson

- Native of Portsmouth, Virginia
- Graduated from Elizabeth City State University, B.S. Psychology.
- Regent University, M.A., Organizational Leadership.
- Doctoral candidate at Regent University (Education Administration).
- Instructional Technology Coordinator.
- Entrepreneur
  - Private Pre-Elementary School (age 2-5th grade) Leaders of Tomorrow Academy
  - LOTTATech - Robotics and Programming Program
- “Each One Teach One” - *African American Proverb*
Workshop Objectives

1. Participants will understand that STEAM is STREAM (Science, Technology, Reading, Art & Math).
2. Participants will learn how to incorporate robotics and coding into a reading lesson through the use of science topics, robots, reading skills, design, art and math.
3. Participants will understand how to create plugged and unplugged codes and create a storyline to share.
4. Participants will have a fun time integrating Robotics & Reading.
Language Arts Standards and Objectives

2.8 The student will read and demonstrate comprehension of fictional texts. c) Ask and answer questions about what is read. e) Describe characters, setting, and important events in fiction. f) Identify the problem and solution. h) Summarize stories and events with beginning, middle, and end in the correct sequence.

2.3 The student will use oral communication skills. a) Use oral language for different purposes: to inform, to persuade, to entertain, to clarify, and to respond. b) Share stories or information orally with an audience. c) Participate as a contributor and leader in a group. d) Retell information shared by others. e) Follow three- and four-step directions. f) Give three- and four-step directions.

3.1 The student will use effective communication skills in group activities.

3.5 The student will read and demonstrate comprehension of fictional text. a) Set a purpose for reading.

5.5 The student will read and demonstrate comprehension of fictional texts, narrative nonfiction, and poetry. b) Describe character development. c) Describe the development of plot and explain the resolution of conflict(s). h) Summarize supporting details from text. i) Draw conclusions and make inferences from text. j) Identify cause and effect relationships.
3.1 The student will construct sets of step-by-step instructions (algorithms), both independently and collaboratively
a) using sequencing; b) using loops (a wide variety of patterns such as repeating patterns or growing patterns); and
[Related SOL: Math 3.16] c) using events.

7.1 The student will construct programs to accomplish a task as a means of creative expression or scientific
exploration using a block based or text based programming language, both independently and collaboratively,
a) combining control structures such as if statements and loops including compound conditionals; and b) creating
clearly named variables that represent different data types, including numeric and non-numeric data, and perform
operations on their values. [Related SOL: Math 7.1, 7.2}
Integration of Literacy and Robotics

In the past, literacy has focused on the ability to read, write and communicate with others. According to the National Council of Teachers of English, literacy is much broader now.

Robotics is identified as a key technology development that will drive technology planning and decision-making in schools in the near future. The building of robotics programs around language arts and other curriculum areas will prepare students for a future that is increasingly focused on science, technology, engineering, and math (STEM).

Incorporating robotics into literacy activities can be a manageable first-step toward teaching students forms of STEM while practicing 21st century skills in exciting and effective ways.
Integrating Robotics into Reading

Materials Needed

- IPad
- Dash Robot
- Book
- Setting Material
- Visual Based Coding App (Blockly

Vocabulary

Command - statement
Algorithm - set by step instructions
Sequencing - beginning, middle, end
Loops - repeated patterns
Events - cause and effect
One day a Red-Bellied turtle named Ted was swimming around his freshwater pond when all of a sudden a bottle hit him on top of his head. Boop!

"Ouch!" said Ted Turtle. "What was that?"
That's when Ted Turtle looked around and realized that his once sparkling pond was filled with muck and trash. There were food scraps and candy wrappers, soda cans and plastic bags, and even a dirty old tire stuck in the mud.

Ted Turtle said, “My home has become too polluted. I can no longer stay here. Besides, all of my friends have left and gone away, too.”
As he walked along, Ted turtle came upon an ant carrying a potato chip. “Where are you going Mr. Ant?” asked Ted Turtle. “I am going home,” said Mr. Ant. “Oh, I am looking for a new home. May I live with you?” asked Ted Turtle. “Oh yes you may. My home is your home,” said Mr. Ant with a smile.
When Ted Turtle got to Mr. Ant's home, he saw a little bitty hole in the ground. He tried and he tried to squeeze into it, but it was just too small. "I'm sorry Ted Turtle, I guess turtles aren't supposed to live in ant holes. Goodbye friend," said Mr. Ant.
“Wow! That looks like fun, Mr. Fish,” said Ted Turtle. “It is fun. I enjoy my home,” replied Mr. Fish. “I am looking for a new home. May I live with you?” asked Ted Turtle. “Oh yes you may. My home is your home,” said Mr. Fish with a smile.

Ted Turtle jumped into the sea with a big splash. He coughed and spit and gasped. The salt in the sea tasted terrible. His eyes burned and he felt very sick.

“I’m sorry Ted Turtle. I guess freshwater turtles aren’t supposed to live in salty seawater. Goodbye friend,” said Mr. Fish.
Turtle Without a Home

"I am gathering these acorns to take home before winter comes." "Oh, I am looking for a new home. May I go home with you?" asked Ted Turtle. "Oh yes you may. My home is your home," said Mr. Squirrel with a smile.

When Ted Turtle got to Mr. Squirrel’s house, he saw a tall tree with a hole in its middle. He tried to crawl up the tree to the hole, but kept falling on the back of his shell. Mr. Squirrel helped him turn over several times. "I am sorry Ted Turtle. I guess turtles aren’t supposed to live in trees. Goodbye friend," said Mr. Squirrel. Ted Turtle went on his way, feeling very sad now. He couldn’t live in the ground or the ocean or a tree. He wondered if he would ever find a new home.
Suddenly, he came upon a beautiful butterfly. "Hi Miss Butterfly! Where are you going?" The butterfly laughed. "My name isn't Miss Butterfly. I'm Bonnie Butterfly, and I'm on my way home."
“Is there trash in your habitat?” asked Ted Turtle.

“Oh no. A nice teacher named Mr. Haltuna and the wonderful children at Valley Springs Elementary School make sure of that. They take very good care of all the animals and plant life at the school,” replied Bonnie Butterfly.
This habitat sounded quite nice to Ted Turtle. "I am looking for a new home. May I go home with you?" asked Ted Turtle.

"Oh yes you may. My home is your home," said Bonnie Butterfly with a smile.
When Ted Turtle arrived at Valley Springs Elementary School's garden habitat, it was the most glorious place he had ever seen. Everything was just as Bonnie Butterfly said it would be. He saw Bonnie Butterfly's entire family flying around the garden along with birds, bees and dragonflies. The pond was a sparkling blue color with goldfish and frogs leaping about. The ducks were quacking and playing and chasing one another. He even saw a Box Turtle that used to live near his old pond. But the most beautiful thing he saw was Tootie Turtle.
Ted Turtle
Characters
Ready to Code
Accessing the App

Blockly App

Click + at top right corner

This connects the robot to the iPad
Special Thanks

Creative Minds Publications

Turtle Without a Home

Dr. Sharon Gaston, Author
Special Thanks

Leaders of Tomorrow Technology Academy

LOTTA Tech

540-680-3967