

Reading Strategies for Students with ASD

CARD

Objectives

Participants will...

- Identify the barriers to academic achievement related to reading in students with ASD
- Identify the academic implications of reading comprehension challenges
- Introduce reading comprehension strategies
- Review a reading comprehension curriculum structured for students with ASD

Barriers to Reading Comprehension

- Lack of Background Knowledge
- Inability to Form Schema's
- Theory of Mind Deficits
- Poor Executive Functioning
- Weak Central Coherence

Academic Implications

Test-Taking:

- Anxious
- Make noises
- Need to take breaks or move around
- Easily Distracted
- Asking for help is hard
- Unaware of “testing behavior/courtesy”

Cooperative Groups:

- Trouble sharing
- Want to be in control
- Not giving others a turn to talk
- Argumentative
- “Know-it-all”
- May not participate

Academic Implications

Reading Comprehension**

- Difficulty understanding the “big picture” or main idea
- Difficulty with inferential questions
- Difficulty predicting what will happen next
- Often prefer non-fiction

Writing Composition**

- Difficulty creating cohesive narratives
- Full of details
- Superficial character development
- Hard to capture the emotion and overall “mood” of a passage

Can have major impact on grades and standardized test scores

Background Knowledge

- Reading Experiment:
 - Poor readers and good readers were asked to read a passage about Soccer
 - Poor readers who know a lot about soccer were **three times as likely** to make accurate inferences about the passage as good readers who didn't know much about soccer.
- This means...
 - Students who score well on reading tests are those with broad knowledge
 - *Scores on general knowledge tests are highly associated with reading test scores

Background Knowledge

- What do I need to know to comprehend this sentence?
 - “I promised not to play with it, but Mom still wouldn’t let me bring my Nintendo DS to the library.”
 - Libraries are quiet places
 - Nintendo DS’s are loud
 - Kids are not very good about keeping their promises not to play with their toys



Academic Implications

- Students with ASD may be excluded from activities in the community limiting their experiences from which background knowledge is derived
- Students with ASD may also have a different experience than their neurotypical peers
- Lack of background knowledge leads to decreased test scores in reading comprehension
- Difficulty with inferential questions
- Difficulty predicting what will happen next

Role Playing

- Role playing can create context for a new experience
- Enhances background knowledge of how situations look feel and sound
- Allows students to step into roles that are not traditional for them
 - “I promised not to play with it, but Mom still wouldn’t let me bring my Nintendo DS to the library.”

Schema Formation

- Schemas are a pattern of thought or behavior that organizes categories of information and the relationships among them
- Or a mental structure of preconceived ideas, a framework representing some aspect of the world, or a system of organizing and perceiving new information

Temple Grandin



not "Thinking in Pictures."

Academic Implications

- Difficulty creating cohesive narratives
- Superficial character development in writing composition
- Challenges recognizing story structure components
- Difficulty with inferential questions
- Difficulty predicting what will happen next

Schema Stories


- Using their schema of story structure, students practice identifying clear sections within a story
- The teacher gives each group a story section (BME) and the group must determine which section they have
- Groups must defend their answers

*Activity

There were many animals on the farm. They lived there happily. Every day the farm family took care of them. The little Red Hen was in the farmyard with her chickens when she found some grains of wheat. That is a small seed that can grow into a plant. "Who will plant this wheat?" she said. "Please plant it. Then we can have more grain when the plant grows." "Not I," said the Goose. "Not I," said the Duck. "I will, then," said the little Red Hen. She was disappointed. The other animals should have helped.

But she planted the grains of wheat by herself. She watered it, too. Every day she checked the plants to see how they grew. After a month, the wheat grew into plants. The wheat plants had many more seeds. Those can be planted or used to make food. When the wheat was ripe, she said, "Who will take this wheat to the mill?" The mill is a place where people grind the seeds. It turns into flour. Then you can make bread from the flour. "Not I," said the Goose. "Not I," said the Duck. "I will, then," said the little Red Hen, sadly. "I will do it myself." So, then she took the wheat to the mill. When she brought the flour home she said, "Who will make some bread with this flour?" "Not I," said the Goose. "Not I," said the Duck. "I will, then," said the little Red Hen. She was disappointed again.

When the bread was baked, she said, "Who will eat this bread?" "I will," said the Goose "I will," said the Duck. "No, you won't," said the little Red Hen. "You did not help. I will eat it myself. Cluck! Cluck!" She ate it with her children, the chickens.



Lack of Theory of mind

- Make inferences about the emotional states of others
- Understand and recognize that people have different feelings and thoughts
- Understand that individual thoughts and feelings influence actions

Academic Implications

- Difficulty understanding characters emotions and how that emotion dictates the events of the story
- Hard to capture the emotion and overall “mood” of a passage
- Often prefer non-fiction
- May have trouble working in groups and solving conflicts with peers

Abstract Vocabulary

- Select weekly vocabulary referring to feeling states for your word wall
 - Include emotions and bodily sensations
- Select or create illustrative stories with corresponding comprehension questions
- Incorporate proprioceptive body checks to associate with the vocabulary

Predicting Emotions

- Teach students to predict emotions based on context























Poor Executive Functioning

- Allow individuals to identify a goal and carry out the steps to achieve that goal even when distraction exists
- Supports self-monitoring and self-correction

Academic Implications

- Students are less likely to check for understanding and to reread if needed
- Students will often speed-read and continue on even if they've lost track of the topic
- Difficulty in recognizing pronoun-subject agreement

Anaphoric Cuing

- Poor executive function causes students with ASD to read on without realizing that they do not understand
- Difficulties with pronouns cause confusion
- Anaphoric cuing depends on the reader stopping to clarify the meaning of pronouns
- This strategy reminds students to check for understanding and monitor their comprehension

The bus driver walked to his bus. He opened the door and walked up the steps.

Police Officer

Juan

Bus Driver

Cloze Exercises

- Students read the passage and insert a word that would make sense in the given sentence.
- “The bus driver walked to his _____. He opened the door and walked up the _____.”
- Teachers can create different Cloze exercises to focus on particular types of words depending on the lesson

Bank Robbery



| | | | | |
|-----------|------------|----------|--------|-------|
| foot | surrounded | manager | robber | money |
| surrender | gun | officers | door | air |

Directions: Complete the story. Use the words in the box.

Last Friday afternoon, a bank (1) _____ went to a bank in Los Angeles. He gave the bank teller a canvas bag, pointed a (2) _____ at her and said, “Give me the (3) _____! Hurry!”

The teller put the money in the bag, but when the robber turned to leave, the teller pressed a silent alarm button with her (4) _____. The alarm alerted the police.

The Maze

- The Maze provides a list of three word choices for each blank within the reading passage
- This adaptation provides support to students with word finding problems
- Changing the activity to a maze makes the activity more accessible to students who do not use speech

Molly loves to [**plan - play - put**] piano. She [**positive - practices - promises**] every day. She wants to be a [**professional - promising - protect**] musician someday.

Weak Central Coherence

- Attention to details rather than the whole
 - Students can tell you all the details but can not tell you main idea
- Focus on extraneous information
 - Special interests may further complicate this issue

Academic Implications

- Difficulty understanding the “big picture” or main idea and may become too focused on small details (*special interest)
- Difficulty with inferential questions
- Difficulty predicting what will happen next
- Difficulty creating cohesive narratives
- Writing is full of details

Detail Sorting

- Choose details from a story and have students sort the important details from the non-important details (added pictures help)
- Example:
 - The animals refused to help the little red hen, the seeds the red hen planted were small, the red hen ate the food by herself at the end
 - Which of these details is not important? Why?

Student's Work: Day 1

A Fun Day With My Family

We went to the park, we went to the aquarium, we went to the zoo, we went to universal, we went to sea world, we went to wet n wild, we went to a hotel, we went to play golf at palm beach, we went to mount rushmore, we went to go watch the superbowl on television, we went to the home of terror, we went to Hawaii, we went to the home of the orioles, we went to the Yankees spring training game in tampa, we also went to the tournament and won tickets of golfing, we also won a lot of prizes, we also went to Washington D.C. , we also went to the theaters to watch the peanuts movie we also went to a birthday party.

Using Story Grammar

- Story grammar evolved from analyses of folktales conducted by anthropologists in the early 1900's.
- Regardless of age or culture, when individuals retell stories they have read or heard the retells follow a pattern.
- This pattern is referred to as Story Grammar and has come to include the elements of a story as well as analysis of how characters react to the events in the story.

The Steps

- Introduce or create the icon for each story element.
- Have the students learn the meaning of each story element.
- Assign a color to each icon.
- Practice text marking using the icons.
- Practice using the marked texts to participate in discussions of reading selections.
- Make individual manipulatives that students can use to independently monitor their inclusion of all parts of stories.

Story Elements

- Character
- Setting
- Initiating Event (Conflict)
- **Reaction**
- **Plan**
- Action Steps
- Result (Resolution)
- **Final Outcome**

Character

- Characters are the people or animals in the story. They have different personalities, backgrounds, and goals.



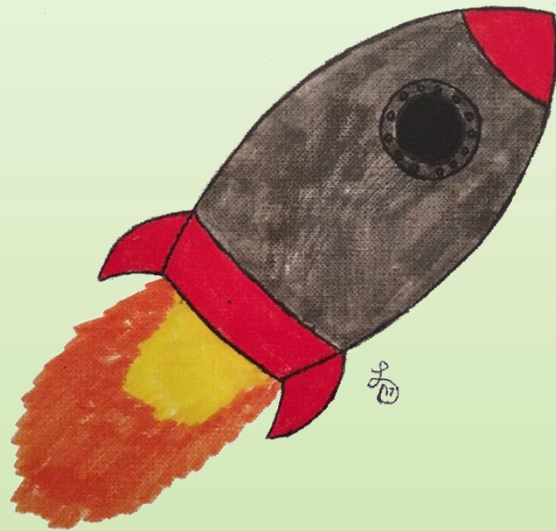
Setting

- Setting is the time and place a story happens. It includes atmosphere, mood, and tone.



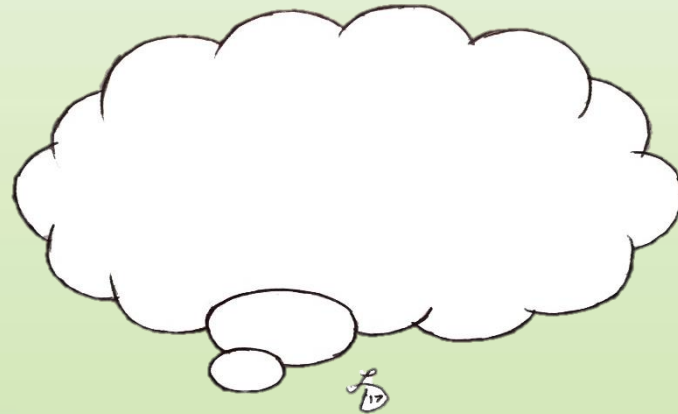
Initiating Event (Blastoff)

- Initiating event or blastoff is an event, realization, or thought that begins the action in a story.



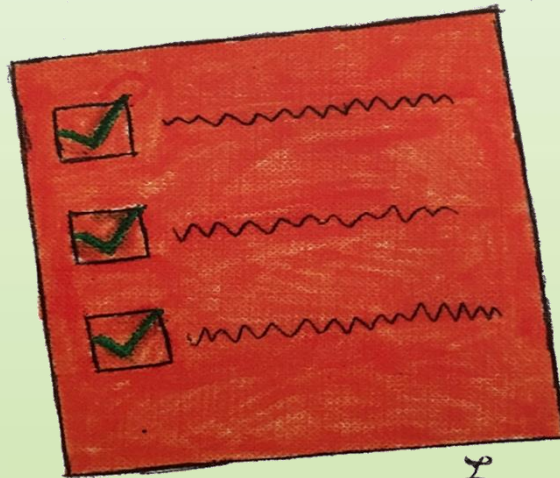
Reaction

- Reaction is the character's thoughts and feelings about the initiating event and is informed by his personality, past, desires and intentions.



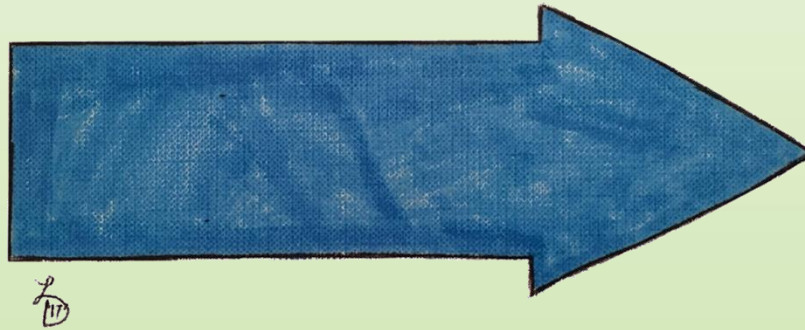
Plan

- The plan is what the character or characters decide to do to accomplish what they need after the initiating event.



Action Steps

- Steps are the actions the character or characters take to accomplish their goal. Usually several actions occur before the goal is fulfilled.



Result

- The result is how the problem created by the initiating event is resolved.

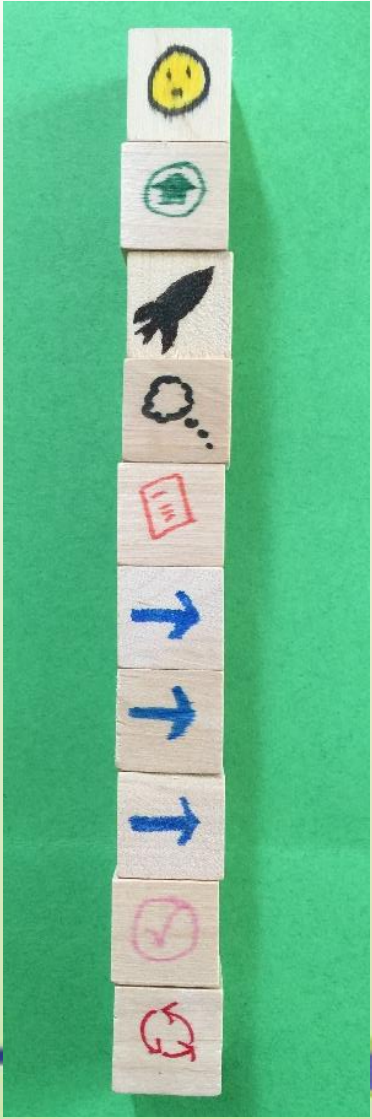
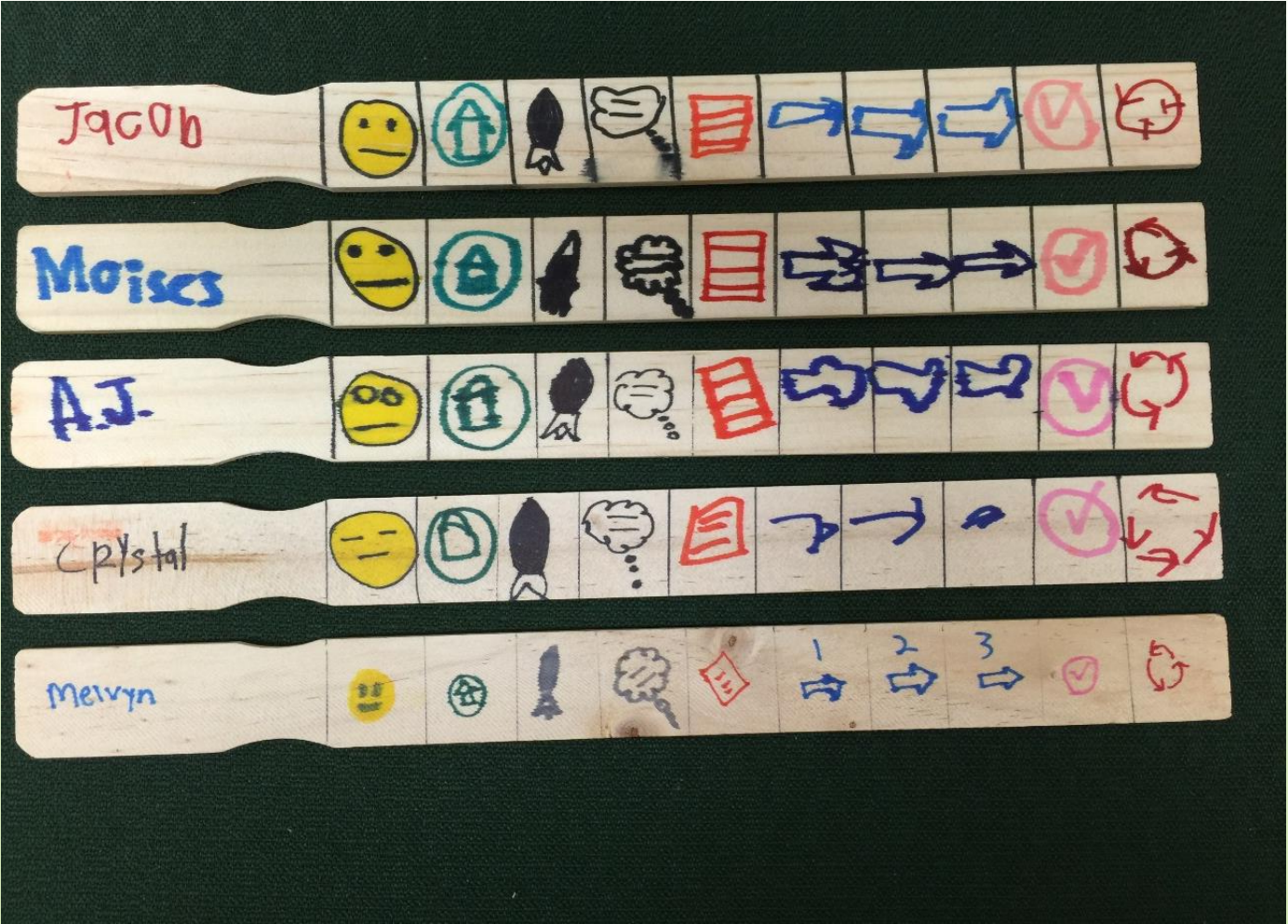


Final outcome

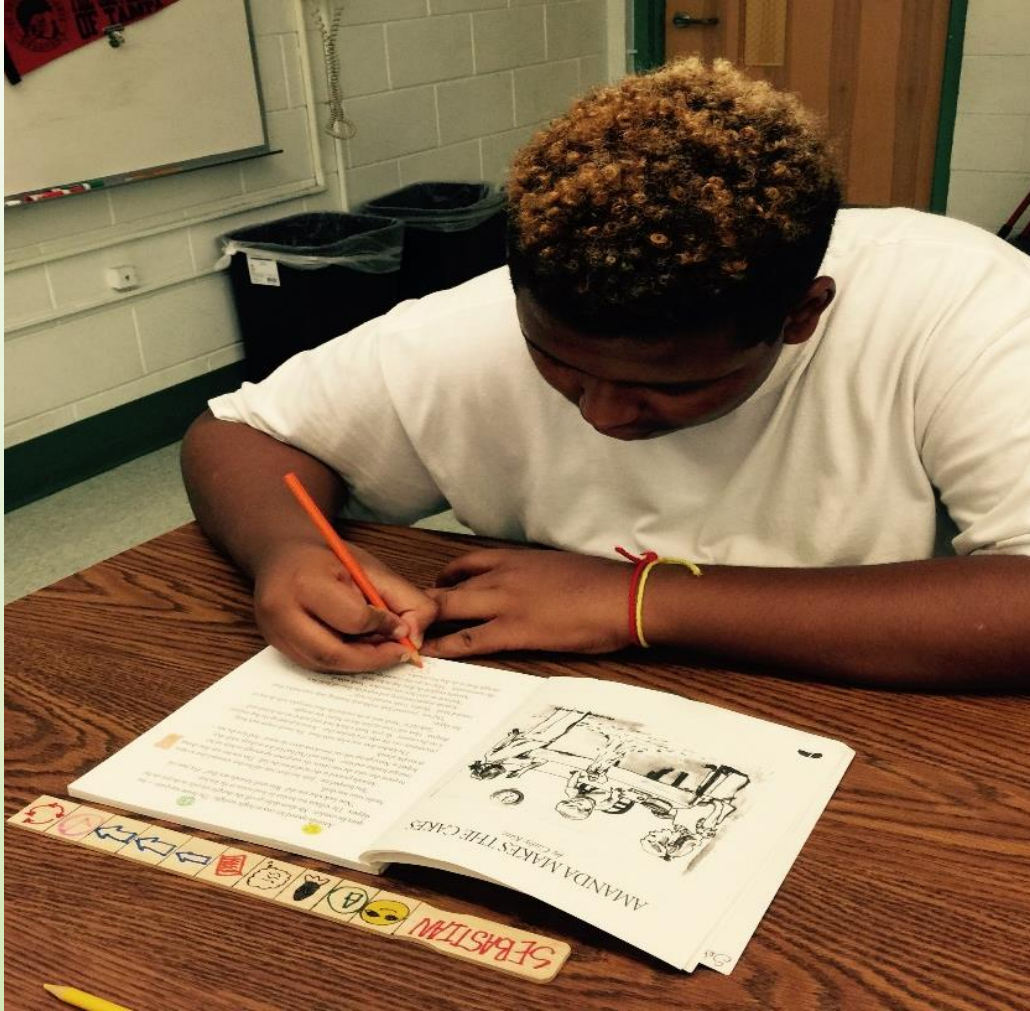
- The final outcome is how the elements work together to end the story. The character may have learned a lesson, changed an attitude, or acquired a new perspective.



Creating Icon Manipulatives










Manipulative Use




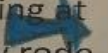






- Students use the manipulatives to guide them in text marking
- In this stage, students are drawing full icons on text

Text Marking Using Icons

Jacob's Visit to Nana's House


















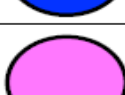


      
Jacob's mother woke him and he looked out the car window. Soon they would arrive at this grandmother's house. He was excited because it had been a long time since he had seen his aunt and uncle. They had made plans to have a wonderful visit.

   
First, they had dinner with their relatives and friends. Then, the next day, they went to the zoo where they enjoyed looking at the animals and riding the safari tour. On Saturday, they rode the water taxi downtown and toured the art museum. On Sunday, they had a picnic at the beach, eating Nana's fried chicken and apple pie. They watched the waves and played in the surf all afternoon.

   
Jacob and his family had such a wonderful time visiting their grandmother that they all looked forward to the next visit. After saying good-bye to their family and friends, Jacob and his family happily drove home.

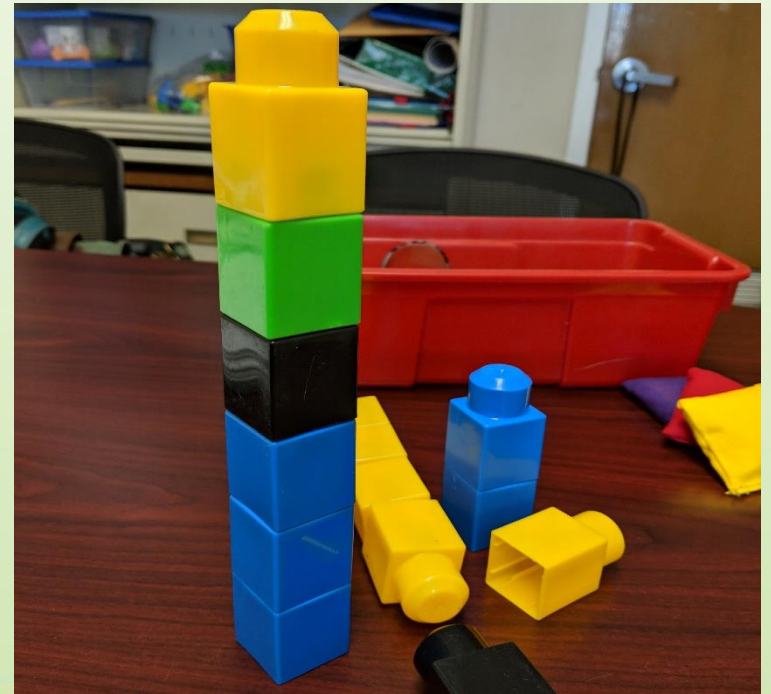
Color Assignment

- Dialogue with the students about which color should go with each icon
- Practice coloring each icon with its designated color
- Text mark simple narratives as well as stories the class is reading together
- Color in each text marking with the designated color for the icon

| Name | Symbol | Color | Description |
|---------------|---|--|--------------------------------------|
| Character |  |  | Character is yellow. |
| Setting |  |  | Setting is green. |
| Launch |  |  | Initiating event or launch is black. |
| Reaction |  |  | Reaction is white. |
| Plan |  |  | Plan is orange. |
| Step #1 |  |  | Action steps are blue. |
| Step #2 |  |  | Action steps are blue. |
| Step #3 |  |  | Action steps are blue. |
| Result |  |  | Result is pink. |
| Final Outcome |  |  | Final outcome is red. |

Color Manipulatives

- Practice handling colored objects as each story element is discussed or when answering questions



Icon Grouping

- As you read texts together, model how to use color to assist in finding answers to questions
- Dialogue with the Students about patterns they observe in locating information in the story

Icon Grouping- BME

- Beginning of the story includes: character; setting; initiating event or blast-off; reaction; and plan
- Middle of the story includes the actions steps the character takes to accomplish the plan
- End of the story includes: the result and the final outcome

Text Marking Using Colors

Morgan's Soccer Game

It's time to get up, Morgan!" called her mom from the kitchen. Morgan opened her eyes. She was on pins and needles already because today was her very first soccer game and she was going to start! The team had been practicing everyday after school for many weeks and now it was opening day. Morgan hoped the game would be a good one! The team they were playing was tough but she felt that her team, the Lions, was ready for anything!

First, Morgan changed into her uniform and had a light breakfast. She got her water bottle ready and put on her soccer shoes. Then, her brother dropped her off at the field. The whole team did warm-ups and the coach called them together. He told them they were ready for this day, to work together, and to do their best. Finally, they huddled closely together and shouted, "Go Lions!"

Morgan walked off the field after shaking hands with the other team members. Her friend put her arm around her and said, "You did a great job getting that winning goal, Morgan!" The play that they had practiced over and over again had worked! It was such a good day that Morgan couldn't wait until practice on Monday!

Text Marking Using Colors



- Use tools to help with text marking colors only
- Some students will not reach this point because the color is too abstract

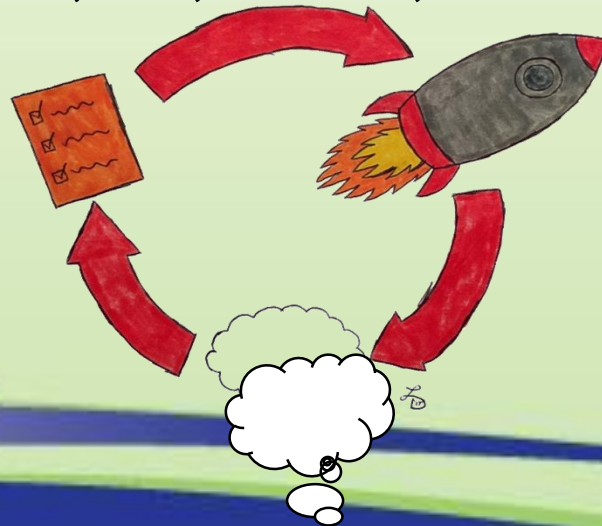
Individual Tools

- Students agreed they would like to have tools to take with them to new reading situations



The Circle of Thought

- The character has a reaction to the blast off
- The reaction incorporates his history, goals, intentions, and emotional response
- His reaction assists him in formulating a plan
- The student learns to use words to connect ideas: because; so; when; therefore & but



Remember this?

A Fun Day With My Family

We went to the park, we went to the aquarium, we went to the zoo, we went to universal, we went to sea world, we went to wet n wild, we went to a hotel, we went to play golf at palm beach, we went to mount rushmore, we went to go watch the superbowl on television, we went to the home of terror, we went to Hawaii, we went to the home of the orioles, we went to the Yankees spring training game in tampa, we also went to the tournament and won tickets of golfing, we also won a lot of prizes, we also went to Washington D.C. , we also went to the theaters to watch the peanuts movie we also went to a birthday party.

Student's Work: End of the Year

A Fun Field Trip

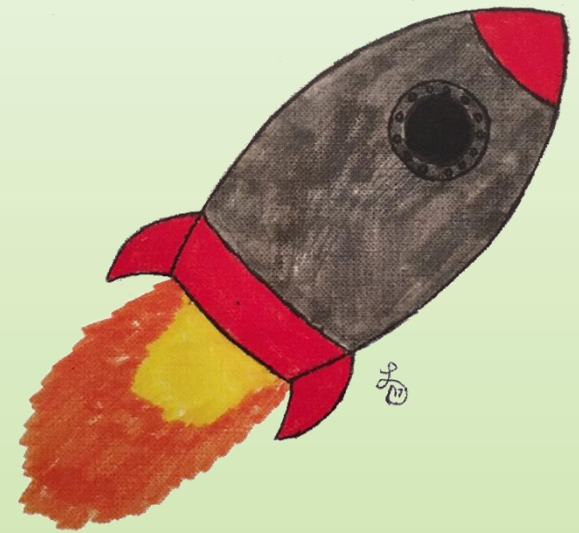
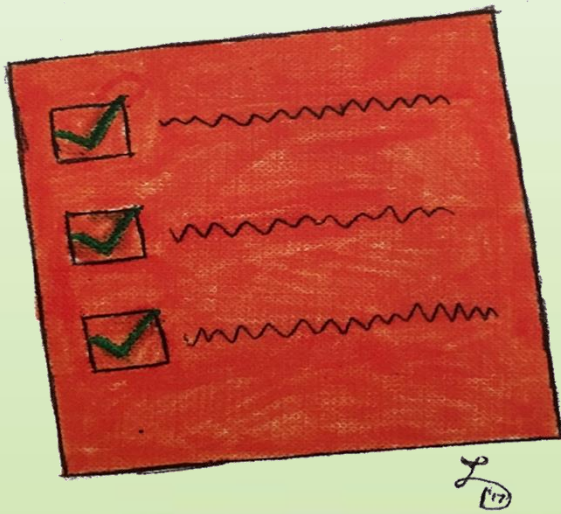
One summer day I , Dominic , and the whole 20 kids in camp cristina group, the setting is the camp grounds in Miami , The kickoff is we got invited to the camp grounds, I felt excited, happy, and proud.

The plan is we will have a good time! First we set up our tent, then we went exploring, next we ate Marco's pizza, then we roasted marsh mellows, finally we went to bed, we all felt happy and we saw fireflies when we went exploring.

The consequence is we had a good time, and the resolution is that we would like to go again sometime.

Designs

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