Making Sense With Sequencing

Sequencing

Grade Level	2nd – 4th Grade	**Time Frame**	2 class periods
Subject	English/Language Arts	**Duration**	40 minutes

Essential Question

What happens in the beginning, middle, and end of a story? Why is sequencing important to comprehension? How do sequences help us in our everyday lives?

Summary

The ability to sequence events in a text is a key comprehension strategy, especially for narrative texts. This lesson starts with students constructing a story by placing events into sequential order. The class creates an Anchor Chart with ideas and clue words that writers use for sequencing. Students practice creating a sequential timeline of the story "Ada, Twist, Scientist". Using the book as a catalyst for scientific curiosity, students participate in a STEM activity that must be performed in a certain sequence. Students demonstrate their understanding and knowledge of using sequence by writing a narrative about their experience using proper sequence words throughout their story.

Snapshot

Engage - Students move sentences around to create a sequential story and the class creates an Anchor chart with ideas and clue words for sequencing.

Explore - Students will listen to the story Ada Twist, Scientist, or a story of your choice that is in sequential order. Groups and pairs of students recall specific events from the story using post it notes.

Explain -Students work in groups of four. Each group reads the events written on the stickies and work together to place them in sequential order. Four or five small stickies are used to write sequencing words from the anchor chart and then placed within the timelines to make the order more evident.

Extend -

Evaluate - Students will demonstrate their knowledge of sequencing by writing a narrative about the _____experience. They make sure to use proper sequence words through out their story.

Standards

Oklahoma Academic Standards for English Language Arts (Grade 3)

3.3.R.6: Students will describe the structure of a text (e.g., description, compare/contrast, sequential, problem/solution, cause/effect) with guidance and support.

Oklahoma Academic Standards for English Language Arts (Grade 3)

4.3.R.6: Students will describe the structure of a text (e.g., description, compare/contrast, sequential, problem/solution, cause/effect).

Materials

- Story event strips for "*Mixed Up Morning*" (1 per student, cut out) attached
- Lesson slides (attached)
- Chart paper
- Book: Ada Twist, Scientist by Andrea Beaty
- 6 pads of regular size stickies (2 colors)
- 6 pads of 1 color of small sticky notes

25 minutes

Engage

Give each student an envelope with the event strips for "*Mixed Up Morning*". Have students individually move the sentences around to create a sequential story. Students share their stories with their Elbow Partner. Students discuss the differences between their stories and what they would each do to make their story better.

Next, have a short class discussion based on these partner conversations. More than likely, the main share out will be that the story had to be put in the right order for it to make sense. Ask students to share what helped them put the story in order. Were there any clues?

Create an Anchor chart with these ideas and the clue words for sequencing.

Possible Anchor Chart Content

- What is Sequence? *Sequence is the* ***order of events in a story.***
- Transition words to show how events took place over time....
  - first
  - next
  - after that
  - finally
  - later
  - eventually
  - The anchor chart can be added to throughout the year and additional words can be added such as: meanwhile, afterward, in conclusion, before, initially

30 minutes

Explore

Teacher's Prep

Since the word hypothesis is important in this story, make sure students know what this word means.

You will be using two colors of sticky notes (any two colors) for students to take notes on. For writing purposes, I will be using blue and green. Half of your students will record on blue stickies the other green. To make it easier for you to remember which pages each group writes about place the stickies in your book before reading the book to students. For Example: The first two pages is the blue sticky group, the next two green, then the next two pages is blue again and so on.

Technology option: You could do this activity using **Jamboard** by assigning a page in the jamboard to each group of 4 students. The students would then use two colors of sticky notes on the Jamboard and follow the same procedure as below.

Read *Ada Twist, Scientist* Note: If you don't have access to the book, there is a link to a YouTube video reading of the story in the resource section.

Introduce the story Ada Twist, Scientist. Tell students, "This is a book about the power of a child's curiosity who is on a mission to use science to understand her world. However, we are using this book to explore how sequence is used in an entertaining story."

Place students in groups of fours. Give each group of 4 a pad of blue stickies and green stickies. One pair of the students works with the green and one with the blue.

Tell students, *"As I read the story I will stop before turning the page. I will say, Blue groups write an event from this page on your blue sticky. The green group just listens. I will then turn the page and read the next two pages. Now it is the green groups turn to write an event on a green sticky. You will use a new sticky each time.*

Pairs work together to write on one sticky each time it is their turn and place it in a pile on their desk. We will do this till the end of the story.

At the end of the story have students put both the blue and green stickies from their group of 4 in a pile. If you are stopping for the day have them label their pile with a group name and collect the piles. Make sure to keep the piles of stickies separated by groups. Before giving them back to the students, be sure to mix each pile up so the stickies are out of order.

20 minutes

Explain

In this part of the lesson students work in their groups of four. Each group will read the events written on the stickies and work together to place them in sequential order. Give students another color of small stickies (4-5) and have them write sequencing words from the anchor chart on the stickies. Students will place the stickies within their timelines to help make the order more evident.

Students will then do a Gallery walk to look at the other teams' timelines of the story. As they move from one group to the other they should make notes about any differences they noticed and specifically what sequencing words that team chose to use.

After the Gallery walk have a class discussion about the importance sequence plays in a story. Ask the class if there are any additional ideas they think should be added to the Anchor chart.

20 minutes

Extend

PART A

Show students the page where Ada wreaks havoc in the classroom. Ask students, "Why do you think doing science is often messy?" [Answers will vary.]

Next ask students, "Do science investigations always go as planned?" [No] What do scientists and engineers do when their experiments and designs do not work the way they planned them? [They ask more questions and try new ideas.]

Show the students the pages where Ada writes down her new questions and ideas on the wall while she is in the "Thinking Chair." Ask students, "How do you think that writing down ideas and questions might provide Ada with new ways to find answers to her questions?" [Answers will vary. Point out that scientists and engineers usually write their questions and ideas in notebooks.] Ask students, "Why do you think it might be important for scientists to write down their ideas in sequence as they learn new things from their investigations?"

Tell students they will be doing an engineering challenge in which they will determine the best way to build a structure.

Challenge: Build the tallest possible tower that will hold an object without falling down.

Suggested Materials (per group)**:**

- 15-20 plastic cups (9 oz. or larger)
- 20 large popsicle sticks (tongue depressor size)
- One object to place on top of the finished tower such as a plastic toy character, block, or other play object that can stand on its own

Suggested Rules (criteria and constraints):

- Work in groups of two
- Both cups **and** sticks must be used (but no more than provided)
- 10 minute time limit
- Object must stand on top of the tower for at least 15 seconds without falling

Have students work in groups of two to complete the challenge using the rules and constraints. Tell them that they will be reflecting and writing about their experience after the challenge is complete. Once all of the towers are completed, have the groups share their towers briefly with one another.

Teacher Notes - Conducting the Engineering Challenge

The engineering challenge can be done in a number of different ways, depending on teacher preference, available materials, and/or student needs. The suggestions provided here can be altered to fit your situation. For example: the number of cups and sticks can be changed; totally different materials can be chosen; the time can be increased or decreased; the group size can be changed; etc... Be sure to try the challenge yourself first before presenting it to the students to ensure that it will work for the needs of your classroom.

You may wish to have a height competition between groups, but it is not necessary for this lesson. Regardless, be sure that all students get a chance to complete the challenge. If necessary, provide extra help or time for groups that need it. A complete design is necessary to complete the rest of the lesson.

PART B

Remind students that engineers usually share their ideas with others in writing once the design is completed and tested. Tell them that their group will now share how to build their design with another group. Ask the class to brainstorm ways that they could share this procedure in writing. Be sure that they bring up the idea that the steps must be in sequence in order to put the structure together. Suggest that they begin by writing a numbered list of the things that should be done to build their tower design.

Have each group write a list of steps and then test the list out with their materials to be sure it works. Have them adjust their lists if necessary. They will keep their list for the Evaluate section.

Wrap up by asking the group, "What does this activity tell us about the importance of sequencing our descriptions?"

10 minutes

Evaluate

They should make sure to use proper sequence words through out their story.

p Discuss the importance of putting these steps in the right order by referring to the mixed u story from the Engage section and having them identify similarities and differences between the descriptions.

Opportunities for Gifted Learners

Resources

- Ada Twist, Scientist Video - https://youtu.be/5tQcSKH37AY
- Cover image: https://www.flickr.com/photos/128733321@N05/18995504943
- K20 Center. (n.d.) Elbow Partners. Strategies. https://learn.k20center.ou.edu/strategy/116
- K20 Center. (n.d.) *Anchor charts.* Strategies. https://learn.k20center.ou.edu/strategy/58
- K20 Center. (n.d.) Gallery Walk. Strategies. https://learn.k20center.ou.edu/strategy/118
- Ada Twist, Scientist Sader, R. (2017). Ada Twist Scientist by A. Beaty