

Storyboards

Storyboards have been used for centuries as a method of visualizing concepts, recording events, or demonstrating tasks. They provide a natural bridge between picture writing and text writing. Storyboards are used in the classroom to help students with reading and writing about abstract concepts. They are an ideal way for students to practice computational thinking.

Use of storyboards:

- Visualize abstract concepts
- Easy Peer Feedback – evaluation and feedback of content are not hindered by low reading or writing proficiency
- Apply the planning stage of writing a procedure or process

Computational Thinking:

- Abstraction – In creating visuals from text or video, students can determine information or steps that might be unnecessary to complete a task, learn a skill or master a concept.
- Algorithmic Design – Developing or creating the steps for a process, procedure or task. Creating an algorithm is the process of creating parts/steps and placing them in a logical order. Storyboards can be used to display algorithmic design.
- Decomposition – Break up a given task, procedure or process into steps. Storyboards display these steps graphically.
- Pattern Recognition – Comparing storyboards provides an opportunity to see patterns.

Tips for storyboards:

1. Provide a template for novices. *As students develop the ability to use this tool they may gradually need less structure. Scaffolding the level of support and structure provided, not only increases the rigor of the task but also produces amazing products.*
 - a Be intentional about the number of frames– and set a minimum
 - b Provide areas to add text under each frame –set a standard for format (complete sentence, phrase, bullet, etc.)
2. To implement with novice students, follow these steps:
 - a Provide a rationale for using the storyboard. An example might be telling middle school students that what they are creating is for 5th grade students. More experienced students should be able to cite the connection and/or rationale.
 - b Provide the template (see #1 above).
 - c Provide an example (see resources below) that is NOT the same content.
 - d Provide a context (the text, problem statement, video, etc.) and the cues that were given for the example.
 - e If students struggle with the example, walk them through the process- either with the provided example (cues and context) or with a simple model.

3. Provide ample materials
 - a Extra templates
 - b Art Supplies – markers, glue, rulers, scissors, magazines, construction paper, etc.
 - c Time to research, plan, collaborate and revise

Reference:

Gargiulo, Richard M. & Debbie Metcalf (2017). Chapter 14: Developing an Understanding of Mathematics in All Learners by Heather Turner Editor (Ed.), *Teaching in Today's Inclusive Classrooms: A Universal Design for Learning Approach* (pp. 425-461). Pittsburgh, Pennsylvania: Carnegie Learning.

Free Templates:

- <https://boords.com/storyboard-template>
- <https://www.studiobinder.com/blog/downloads/storyboard-template/>
- <https://www.printablepaper.net/category/storyboard>
- https://www.educationworld.com/tools_templates/template_strybrd_8panels.doc

Example:



Courtesy of 7th Grade Science students at Hanahan Middle School Berkeley County School District in SC