

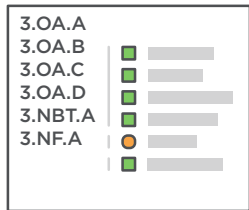


Overview

The ST Math Journey has been sequenced by educators, mathematicians, and neuroscientists to create an optimal path through the ST Math grade level content. The design of the path is based on the set of principles listed below.

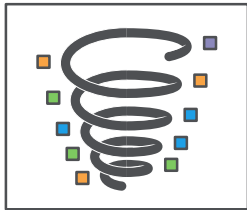
Key Design Principles

HIGH PRIORITY ON TOPICS OF MAJOR FOCUS



Grade level math standards specify a subset of topics that are the major work of the grade level. The majority of state assessment questions are derived from these areas. The design of the ST Math Journey specifically prioritizes these topics within the objective sequence. Students will predominantly work on mastering the major topics prior to moving on to additional and supplemental topics at the grade. In this way, if not all students in a class complete the Journey, they will have spent their time on the most critical topic areas.

SPIRAL CURRICULUM



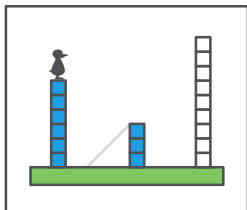
Spiraling a curriculum refers to the method of presenting concepts repeatedly over a period of time with increasing layers of complexity. Research shows that it is better for long-term retention to space out learning experiences in contrast to massed learning in which a lot of information is acquired in a short period of time. The ST Math Curriculum follows this approach by having students experience Learning Objectives of one topic, moving on to another topic, and eventually coming back to previous topics, connecting with what has been learned already and continuing the learning trajectory at an increased level of complexity. As a result, the learning topics are spaced in time, leading to better retention of the material.

CONTENT DEPENDENCIES RESPECTED



While ST Math Learning Objectives are designed with a low floor and high ceiling, they are built into coherent sequences with recommended prerequisites and dependencies. Because ST Math is a mastery-driven system, students will be able to master certain topics better if they have mastered the previous games and content in the hierarchy. In this way, students progress through the curriculum starting with the more foundational content and moving through to more complex topics that build on the previous content.

POWERFUL SPATIAL-TEMPORAL MODELS



While spatial-temporal models can be used to teach all math standards, there are certain concepts where using a spatial-temporal approach really shines. Estimating the location of a number on the number line or building an equivalent fraction using virtual fraction blocks are examples of highly effective uses of a spatial-temporal puzzle. These instances of using spatial-temporal puzzles are included as a factor when structuring the Journey sequence.

ST Math is designed to provide students with a mastery-driven spatial-temporal experience through each topic area sequenced by a team of internal experts. While we allow assigning and reordering the Journey by custom request, best practice with ST Math is for students to play the default Journey.