

Spiralling Math Language and Content Throughout the Year

GRADES 9-12

GUIDELINE KEY

This resource is related to the following ELSF Guidelines:

SUBJECT

MATH

AREA OF FOCUS

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GUIDELINE

1

SPECIFICATION

1A

1B

Description of resource and intended audience:

The concept of “spiralling” refers to the practice of providing multiple opportunities for students to encounter and develop disciplinary language, concepts, and skills in increasingly sophisticated ways over time. Teachers using spiralling practices should be responsive to students’ current stage of language development and understanding of concepts and skills, should build upon what has been previously taught, and should seek to deepen understandings of content, skills/practices, and the language needed to express them progressively throughout the curriculum. Rather than primarily focusing on vocabulary, spiralling disciplinary practices (argumentation, explanation, justifying responses, etc.) should be the main emphasis.

- Spiraling in math has long been established as a way to help students acquire important concepts and skills. It is also important, though, because it helps our English Learners to see concepts, language, and skills more than once in a school year, while simultaneously connecting the language, math skills and concepts to the English Language when we discuss the material.
- Another important thing to consider with spiraling is that the language, concepts and skills that should be revisited often are dependent upon the students in the classroom and their specific needs.
- One way to help with spiraling language, concepts and skills is to create a chart of important concepts with the date that you teach and then review them and the accompanying language goals.
- Some language, concepts and skills may take longer for students to “master” than others, and teachers should consistently formatively assess students’ progress and respond to students’ needs as appropriate.
- Generally, teachers should provide opportunities for students to apprentice to language skill(s) and concept(s) and then provide opportunities to revisit them one week out, then every 3 – 4 weeks so that critical language, skills and concepts are visited 5 – 7 times throughout a school year. In addition to deepening student understanding, revisits help students appropriate increasingly complex math language and practices. The curriculum can also indicate when a skill should be introduced, revisited and then mastered (because the content and language are connected to grade level standards).

The Basics:

- Begin the year with language, concepts and skills that are connected to grade level standards/ expectations and that you believe are important for students to learn to master the content.
- What kinds of questions/tasks will help you determine if your students have mastered the concepts, skills and the language used to express them? How will you assess their understanding?
- One way to incorporate spiral review is to use similar content Monday thru Thursday, and check your students’ progress/understanding on Friday.