

THE BEACHSIDE SOUTH CLUSTER'S NUMERACY KIT

SNMY+

www.education.vic.gov.au/studentlearning/teachingresources/maths/snmy

Rationale:

The Test is designed to assess students' Multiplicative Thinking. The information provides teachers with a tool, the Learning and Assessment Framework, to identify students levels of understanding. Essentially, students are Zoned according to their Level of Proximal Development (Levels 1-8). Teachers use targeted intervention tasks and strategies to enable students to progress through the Zones.

Step 1 - Assess and score your class

There are two assessment booklets that are located in the kit. (These can also be downloaded from the DEECD website.)

The results from the tests are used for locating students against the Learning and Assessment Framework (LAF). The LAF Score allocates individual students to a Zone of Proximal Development.

Each assessment task booklet contains:

- assessment tasks
- student score sheet
- scoring rubric for each task
- raw score translator.

Before starting the assessment, teachers should read the instructions for preparing their students and work through an example of an assessment task with them.

It is also important for teachers to familiarise themselves with the Learning Assessment Framework ([LAF](#)) before giving their students the assessment tasks.

After conducting the assessment, teachers use the score sheets, scoring rubrics and the raw score translator to score and locate their students on one of the eight zones.

Step 2 – Consult the Learning and Assessment Framework

The Learning and Assessment Framework for Multiplicative Thinking (LAF) will provide teachers with the key ideas and concepts for the zones. It is linked to the assessment

tasks used to evaluate multiplicative thinking and contains specific advice on teaching implications for each zone.

The LAF attempts to bring together in a hierarchy all of the key ideas, strategies and representations of multiplication and division needed to work flexibly and confidently with whole numbers, fractions, decimals and percent across a wide and expanding range of contexts.

There are eight zones in the LAF, moving from initial explorations with concrete materials through to complex multiplicative structures.

Step 3 – Support and scaffold students

Once students have been assessed and the appropriate zones have been identified, teachers can support and scaffold students to higher order multiplicative thinking using a range of teaching activities, tasks and other targeted interventions.

The assessment booklets can also be used to re-assess students after they have participated in the explicit teaching activities to evaluate their movement against the LAF. This re-assessment is recommended after a teaching period of at least six months to ensure adequate time for conceptual growth.

Step 4 – Follow up with further resources

The Beachside South Cluster has developed both a digital and a practical resource kit for teacher use. The kit contains the following:

1. Test Option 1 and 2, Scoring Rubrics and Raw Score translator (LAF Zone).
2. Targeted intervention / Learning Plans for each of the Zones (1-8).
3. Specific Resources and all materials required to complete each of the lessons.

Step 5 – Further Resources

The Beachside South Cluster has developed some further resources to assist teachers in their confidence and competence when teaching mathematics.

These include:

1. **A Glossary of Terms** (to promote a common mathematical language amongst staff)
2. **Activities and Common Language** to support the Scaffolding Numeracy in the Middle Years (SNMY) Lesson Plans focusing on the **e⁵** domains of **Elaborate and Evaluate**. Specific Higher Order Thinking Questions and associated activities have been included to extend student understanding and link the **e⁵** and mathematics.

3. **Share, Reflect and Assess Strategies (SRA)** have been listed and described for easy classroom application.
4. **Teacher Reflective Tool – Linking the e⁵ Entry Level Statements with ‘What the Teacher Does’**

In order for the TPL team to grasp the concepts outlined in the e⁵ Instructional Framework, we analysed all e⁵ entry levels and developed a reflective tool for teachers. Teachers can use these guidelines and reflect on what they are currently doing in the classroom (their craft) and identify what practices need to be included in their repertoire to move forward from one level to the next.