Reflection Protocol

"The most powerful learners are those who are reflective, who engage in metacognition—thinking about what they know—and who take control of their own learning (White & Frederiksen, 1998)

Reflection questions have been adapted from BC Curriculum article: Supporting the Self-Assessment and Reporting of Core Competencies.

Why are we asking students to reflect?

We are asking students to reflect upon their learning to enable them to deepen their learning and make it more robust.

Reflection will allow students to develop the ability to describe themselves as unique learners, set goals and gain greater ownership of their learning (Supporting the Self-Assessment and Reporting of Core Competencies - BC Ministry of Education).

Teachers must make space in the learning day for students to appraise their own work and examine their progress toward goals. (Frey, Fisher & Hattie, Educational Leadership, Feb. 2018 issue

How can we support/guide students in reflecting upon their math learning?

The purpose of the reflection sheets is to help students focus on their personal strengths when working collaboratively and individually. This modelling and reflective practice will take time to develop.

The **Collaborative Activity reflection** encourages students to reflect upon their Core Competencies. The bulleted list allows students to select one or more competencies they feel they were particularly successful with. Students are then encouraged to provide evidence. The requirement to provide evidence invites students to truly reflect on their experience and provide justification for their decision.

The **post-strand reflection** encourages students to reflect upon their abilities as a math learner. The questions are intended to draw out how students learn best, and identify what their strengths and stretches (struggles) in mathematics are. Teachers should be prepared for some students to struggle completing one or more of the sections. Each response (or lack thereof) provides teachers with insight into how the student views their current level of understanding.

Teachers should encourage students to thoughtfully complete as much of the reflection as they can, as the information will help inform the teacher's instructional decisions.

The reflection sheets are universal in nature; they can be used after each assessment strand (Patterning, Computational Fluency and Number Sense).

What to look for in the student reflections. Questions to ask yourself.

- Does the student provide evidence to justify their response?
- Are your students comfortable reflecting in writing? Will some need a scribe?
- Is there a discrepancy between how the student views themselves as a math learner and how they performed on the assessment?
- Did anything surprise you in the student's reflection? Did you learn something new?
- What are the trends you noticed across your class?
- How will this help inform your practice?
- What are the next steps?

As discrepancies and concerns arise, opportunities for conversation with students arise.

What do we do with this information?

As a singular event, these reflections can be used to help inform instruction. By using student reflections in combination with their assessment responses, we can create more personalized learning opportunities during math instruction; for example: using concrete objects, options of different tools to guide learning, small group and partner work, demonstrating strategies.

"To be reflective means to mentally wander through where we have been, and to make some sense of it." (Costa & Kallick)

As a part of an ongoing practice of student reflection within the learning environment, this information can be included in a student portfolio to provide evidence of growth over time. The forms are universal in nature; they can be adapted for use in multiple settings.

These student reflections are helpful for informing conversation and in discussing next steps.