Christ the Teacher Catholic Schools

Mathematics Teacher Self-Reflection

1. Planning and Preparation

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| Curriculum Knowledge I understand the outcomes at my grade level.  I have a good sense of critical outcomes that I can use to plan responsively.  I am aware of the learning continuum for the years before and after the grade(s) I teach; I refer to a scope and sequence guide.  I am familiar with prerequisite knowledge for each outcome. I know how each outcome will be developed in the coming grades.  I pre-assess and tap/activate prior knowledge to help connect new concepts.  I collaborate with my colleagues in our math team. We have planned for critical concepts, common vocabulary, vocabulary continuum.  I know how to access quality resources.  I am aware of how to use the core resources in may school. | Planning for Instruction  I have made a year plan for my course that has enough flexibility that I can be responsive to student learning.  My planning starts with the end goal: What do students need to know (understanding) and be able to do (skills).  I have organized my course to capitalize on prior learnings and mathematical connections.  I understand the Big Ideas of the outcomes in each strand.  I have used my knowledge of scope and sequence to highlight critical concepts. I have collaborated with my colleagues to ensure mastery of critical skills and understandings.  I have planned for spaced practice.  I have planned for embedded formative assessment.  I have planned tasks and activities for learning and for assessment.  I have planned for interventions and enrichment. | Content knowledge and pedagogical knowledge  I have a good working knowledge of the mathematics within each of my outcomes.  I can use my knowledge to best lead my students to deep, conceptual understanding, discovery and analysis of algorithms that is connected to concrete materials and pictorial representations.  I understand how to use required manipulatives and visuals to foster deep understanding.  I can anticipate misconceptions and have alternative approaches to differentiate instruction.  I continue to learn and refine pedagogical techniques to best foster learning.  I am aware of what constitutes effective mathematics instruction based in research. I continually seek professional development to improve my understanding of effective teaching of mathematics.  I understand how to enrich in every concept area. I understand how to provide scaffolding and interventions for struggling students. |

1. Rich and Safe Mathematical Environment

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| Growth Mindset  I work to foster a growth mindset in my students.  My room reflects that we are a community of learners.  I address negative self talk and negative attitudes towards mathematics.  I have shared growth mindset information with parents, and discussed the importance of encouraging dialog around math.  I believe that all students can learn math.  I remind my students that everyone has strengths, and that anyone can learn.  I respect and acknowledge all contributions.  I model a growth mindset and demonstrate to my students that I am a learner. I continue to develop myself professionally, search for best practices, and assess the impact of my work on student learning. | Physical Environment  My walls display reminders of growth mindset and the importance of errors as a learning point in math.  I use anchor charts to guide my students to understanding and to reinforce prerequisite knowledge.  My vocabulary instruction is accompanied by a word wall that is rich with representation. I refer to the word wall and use it as I encounter each term. I display only material that is in use in my course and area of study.  My walls display student work, including student-created anchor charts, projects, designs, representations, and intentional talk prompts.  Classroom routines are well displayed and referred to. They are articulated in positive, respectful tones  I have appropriate manipulatives and supplies handy. | Developing a Learning Culture  I reinforce our classroom as a community of learners  As a class, we discuss the difference between a “student” and a “learner”.  We embrace mistakes and accept them as necessary to learning.  My students understand there is purpose to productive struggle.  I provide opportunities for students to think deeply and enter into problem solving.  Emphasis is on process and strategy.  I have an inclusive classroom where all students and cultures are respected. | Addressing Math Anxiety  I survey my students early in the year to understand their disposition towards mathematics. I respond to surveys and consult with timid or anxious students about how to best serve them.  I instill an understanding that while fluency is important, speed is not a determinant of mathematical ability.  I highlight mathematics in the real world so that students understand that it is a social, collaborative endeavour, and that deep thinking is more important than speed.  There are no “timed” events in my room, and all students understand that everyone processes differently.  I allow adequate wait time with my questioning.  I reduce anxiety associated with classroom discussion and questioning by priming students and explicitly teaching respectful, intentional mathematical dialog.  I treat all students with respect and confidentiality, regardless of their behaviour. |

1. Knowledge of Pedagogy

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| Mathematical Processes  I have a good working knowledge of the mathematical processes outlined in the curriculum. I ensure that activities and tasks in my classroom provide opportunity for mathematical discourse, sharing of strategies, visualizing, attending to and comparing representations, and using mental math routines. Estimation is embedded in conversations and routines. I continually draw connections between mathematical concepts, and connections to students lives.  I ensure that students are given ample opportunities to communicate their reasoning. I incorporate technology appropriately to enhance learning. | Mathematics Instruction  I understand the concept of balanced math, placing equal emphasis on conceptual understanding, problem solving, and fluency.  I have a plan and flow to my lesson that is appropriate to the concept being taught.  I understand when to provide explicit learning goals and when to withhold information to facilitate uncovering/discovering concepts.  I use a variety of methods and activities to actualize curriculum. Direct instruction involves a back and forth with students including opportunities to dialog with partners, conjecture, experiment, and contribute to the lesson.  I teach from a constructivist stance, making use of manipulatives as much as possible to actualize the concrete-representational-abstract model of constructing understanding. | Lesson Design  When I introduce new concepts, I provide activities and explorations as much as possible.  I help students connect new knowledge to prior understandings. My lessons incorporate movement, collaboration, communication and sense-making.  There are opportunities for full group, small group, pairs, and independent practice. I arrange guided math classes when appropriate, including small group instruction/intervention at a teacher table. Students contribute to the teaching. Rigor is reflected in a variety of approaches and discussions. I ensure there is time for space practice to enhance retention. Where suitable I provide summaries of understanding to consolidate our learning. |

1. Assessment

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| Assessment Philosophy  **Assess**: From the Greek, *assidere*, “to sit beside”  My assessment practices support student learning.  I understand the role of assessment for, as and of learning  I assess to understand the effectiveness of my teaching, and adjust accordingly.  In our classroom culture of learning, I strive to have students focused on learning, not on grades as a reward or currency.  My students understand that we are assessing understanding, not products.  I can provide students a variety of ways to demonstrate learning.  I am comfortable with and use the Christ the Teacher Math Rubrics (K – 9)  I have a good understanding of the outcomes in my curriculum, and what it means to demonstrate understanding.  I keep records not only on products but also observations of students and conversations with students. | Assessment For Learning  I provide regular opportunities for specific, non-graded feedback.  Every lesson incorporates a variety of formative assessments. My students use classroom whiteboards, individual whiteboards or technology for instantaneous feedback.  I have a method of tracking/recording formative assessments, observations of student ability, and conversations that reveal a student’s level of understanding. | As Learning  Christ the Teacher Math Rubrics are shared with students. I ensure students are familiar with rubrics and success criteria.  Students have a good sense of where they are at and where they need to go next along the learning continuum.  I engage students in conversations around assessment. Some formative assessment tasks focus on metacognitive processes and reflection.  I save samples and exemplars of student work to demonstrate what proficiency looks like.  Students are aware of criteria for grading and can articulate their progress towards proficiency.  Students can produce saved samples of their own work and discuss its strengths and weaknesses. | Of Learning  I triangulate assessment evidence, using conversations and observations as well as products to determine a grade.  Students have a good understanding of their grades in my class, and can comment on why they are assigned a given grade.  I provide flexibility with summative assessments, to ensure I am allowing students to demonstrate learning. There are allowances for extra time, alterative types or locations of assessments, reteaching and redoing work. I help students feel ownership of their grades and responsibility for their learning. I compare my standards with those of my colleagues, and participate in collaborative assessment opportunities. I communicate with parents/families regularly. |

1. Responsive Instruction

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| Structuring Tier 1 instruction-- Differentiating  I provide opportunities for small group instruction to better differentiate for students.  I create flexible groups of students to best enhance their learning.  I pre-assess to determine the level of readiness of my students .I respond to this assessment by providing interventions.  I plan time to address learning gaps. I have a variety of instructional practices to best engage every learner in my room.  My instruction responds to assessment data to meet students where they are at.  I collect and design tasks with a number of entry points: “Low floor, high ceiling” tasks, or parallel tasks.  I differentiate learning by providing alternative instruction. I differentiate tasks and assignments to accommodate all learners as much as possible.  I plan enrichment or more complex and engaging tasks for high performing students.  I instill an understanding in my class that not all learners need the same material or activities. | Tier 2 Intervention  I seek out methods to provide supplementary learning activities for struggling students.  I have a variety of resources available to help address learning gaps.  I have tools available to support small group interventions, such as screeners, additional manipulatives and techniques, whiteboards, technology, games, and anchor activities.  I have collaborated with my administrator and colleagues to arrange time to provide structured interventions. | Tier 3 Interventions  I reach out to team members to contribute to programming plans for students requiring tier 3 interventions.  I have reviewed assessments in the cume folder and explored best approaches with students. .  I collaborate with my co-teachers, SSST, administrator, student, and family to best plan for students on individualized programs or adaptations. I document and record adaptions and student progress.  Programming decisions are made in light of desired future plan for each student. |