

1. Our goals
  - a. to connect math with real life learning experiences in our community.
  - b. The connections include career awareness and math problem solving that involves expression using words/explanations, pictures/graphics, numbers/symbols and real life scenarios.
  - c. Goal: to create self-directed learners (who own their learning) – who use the spiral of inquiry...
2. Our idea
  - a. The Wonder Walk Math Schedule:
    - i. Wonder Walk Prep Talk
    - ii. Wonder Walk
    - iii. Problem Solving
    - iv. Wrap Up Time
  - b. Daily Wonder Walk math supports the redesigned curriculum through: flexible learning environments each day, personalized learning through choice of topic, inquiry by searching for career ideas and math concepts in the environment, cross-curricular study, active engagement, change, math literacy, Know, Understand, Do (the curriculum model), concept-based, competency driven... It is totally in line with the redesigned curriculum.
  - c. It follows the grade 7 math curricular competencies and the content. It places equal emphasis on the core competencies because of the combination with the walks and the social aspect that is inherent in that combination
3. **Wonder Walk Prep Talk**
  - a. A typical math day begins with a brief intro in the classroom that connects a location in the community with a career option. We have a brief discussion about what we might encounter on our walk and various types of math that might be appropriate to express our findings.
  - b. In the morning, while talking about the upcoming Wonder Walk, we should create a Van DEWSle on the board and ask “I wonder what kind of math a \_\_\_\_\_ uses”.
4. **Wonder Walk** – 30 minutes. Kids carry a clipboard, VanDEWSle worksheet and a pencil.
5. **Problem Solving** - Upon returning to the classroom, students begin recording their ideas on a graphic organizer (VanDEWSle) that has been tailored over the past year to meet our needs. Students are expected to demonstrate their math understanding using the four quadrants in order to gain thorough knowledge of the concept.
  - a. **Real life situations**
    - i. Students actively search for math in the environment and pull ideas from their heads to help them make sense of what they discover on our walks and connect it to real life concerns. Initially, students connected irrelevant objects in an attempt to 'make math'. Now, they search for meaning in the math that they see in the community. They see math as an attempt to make meaning, rather than simply jumping through hoops to 'finish their math'. The kids really own their math.
    - ii. Service learning is a valuable community initiative that I pursue actively with my class each year. It instills valuable lifelong skills while helping people in our area. - Leslie
    - iii. Place-conscious learning is a way for students to connect who they are with where they are. It allows them to explore the curriculum in a way that is personally meaningful to them.-Biz
    - iv. The real life quadrant needs to include expressions. In that case it wouldn't be a direct question, but a problem to solve.
  - b. **Numbers and symbols** – students explore their math question using numbers, symbols and labels. It includes equations and expressions.

- c. **Words, reminders** – this section offers definitions and explanations about the rest of the content and processes on the page. It includes attributes, descriptions, vocabulary captions, titles, and labels.
  - d. **Pictures, graphics** – These may be in the form of T-charts, number lines, various types of graphs, drawings, models and representations of manipulatives.
6. **Wrap up Time** – This includes completing/adjusting the lesson that began before the walk and independent student work.
7. Strengths
- a. Students quickly became adept at recognizing different ways to express their math learning. They have stopped asking what the point of math is. Math is inclusive because everyone approaches their daily math problem from their own point of entry. Everyone feels success because they own their work from the Wonder Walk. Math is now cross-curricular naturally. We flit between different strands of math, reinforcing and reviewing concepts in a logical manner, which mimics math in real life.
  - b. Students are able to choose math within their zone of proximal development - math that's right for them. They are not disengaging because it's too difficult, and because it's cyclical, they always get another try at a concept. We have found that students will consciously look for math in an area where they are challenged.
  - c. Wonder Walk Math can support teachers in their efforts to connect math to real life. It might inspire teachers to expect students to demonstrate their math understanding in various ways. It offers a simple graphic design to guide students when exploring math concepts.
8. Challenges
- a. To continue to add rigour and depth to their math learning. (This changes daily and per individual.)
9. New strategies – dependent upon personal challenges and group trends
10. Celebration – what we're proud of
- a. It requires the students to actively seek and support math concepts in the environment. They are required to choose, analyze and present information. They are not regurgitating information; they are constructing knowledge. They make meaning by necessity. It is very obvious when their work doesn't make sense; then they fix it! This awareness continues to grow, and it points to the success of what we are doing.
11. Assessment – Student self-assessment, observations during math class, conversations on math walks, individual math conferences, occasional collection and marking of VanDEWSle worksheets, occasional quizzes using the VanDEWSle format.
12. New goals – where we go from here?
- a. How do wonder walks and creating their own math problems to solve encourage students to take risks that deepen their learning?
  - b. Setting an audience to inspire their questions? No – it needs to be self-directed
  - c. Creating more rigorous questions.
  - d. Increasingly self-directed
  - e. Clipboards/covers for all
  - f. Record more before leaving on the Wonder Walk
  - g. Walk 3x/week rather than 5x
  - h. Math immediately after walk
  - i. develop better vocab
  - j. To help build skills in the 'starminder' (Words) quadrant
  - k. To also build skills in the drawing/sketching section (teach specific lessons, brainstorm, chart ideas...)
  - l. To add 'estimation' to that quadrant