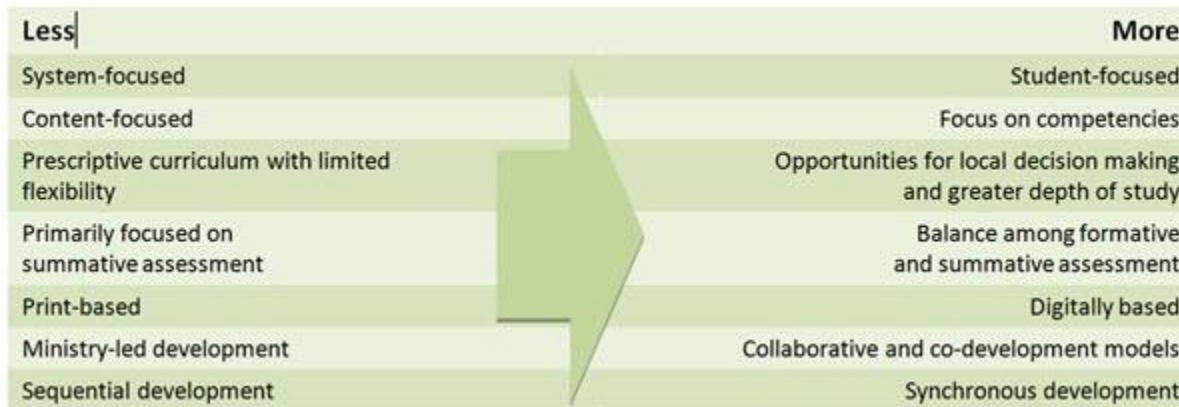


Pedagogical Shifts..... Transform

Transform

The Ministerial Order from the Government of Alberta states that the fundamental goal of education in Alberta is to inspire all students to achieve success and fulfillment, and reach their full potential by developing the competencies of **Engaged Thinkers** and **Ethical Citizens** with an **Entrepreneurial Spirit**. The curriculums of Alberta Education will be redesigned.



Teachers in The Edmonton Catholic School District are implementing pedagogical shifts through TRANSFORM.

TRANSFORM! IS....Moving From...

Traditional	Student-centered
1. Content-based	Competencies-based
2. Student as Knowledge Recipient	Student as Inquirer and Creator
3. Topic-driven	Cross-curricular themes
4. Short-term Assignments	Project-based Learning
5. Memorization	Higher-level Thinking
6. Summative	Formative Assessment
7. Competitive	Collaborative Learning
8. Single Grades	Multi-grades
9. One-size-fits-all	Personalized, Differentiated
10. Print-based	Multimodal (print, visual, digital)

<p><i>Communication</i> [C]</p> <p><i>Connections</i> [CN]</p> <p><i>Mental Mathematics and Estimation</i> [ME]</p> <p><i>Problem Solving</i> [PS]</p> <p><i>Reasoning</i> [R]</p> <p><i>Technology</i> [T]</p> <p><i>Visualization</i> [V]</p>	<p>Students are expected to:</p> <ul style="list-style-type: none"> • use <i>communication</i> in order to learn and express their understanding • make <i>connections</i> among mathematical ideas, other concepts in mathematics, everyday experiences and other disciplines • demonstrate fluency with <i>mental mathematics and estimation</i> • develop and apply new mathematical knowledge through <i>problem solving</i> • develop mathematical <i>reasoning</i> • select and use <i>technology</i> as a tool for learning and for solving problems • develop <i>visualization</i> skills to assist in processing information, making connections and solving problems.
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Check out this video on 21st Century Learning on why teaching needs to change:

[Born to Learn](#)

Samples of TRANSFORM

Within the content resources for each chapter I have included samples of the pedagogical shifts associated with TRANSFORM.

1. Transformations

- a. [Horizontal and Vertical Translations](#)

2. Radical Functions

- a. [2.1 Formative Assessment](#)
- b. [2.2 and 2.3 Formative Assessment](#)
- c. [Ticket Out of Here Samples](#)

3. Polynomials

- a. [3.3B Problem Solving with Polynomials](#)
- b. [3.4 Equations and Graphs of Polynomial Functions](#)

4. Trigonometry and the Unit Circle

- a. [Radians Activity Lab](#)
- b. [4.3 Trig Ratio Row Game](#)
- c. [Unit Circle](#)

5. Graphing Trig Functions

- a. [Height of a Ferris Wheel Rider over Time Video](#)
- b. [Sinusoidal Graph Matching Activity](#)
- c. [Ferris Wheel Matching Activity](#)

6. Trigonometric Identities

- a. [Sum, Difference, and Double Angles... Find the Error Activity](#)
- b. [Trigonometry Identity Jigsaw Puzzle](#)

7. Exponential Functions and Equations

- a. [Building Exponential Equations Activity Template](#)

8. Logarithms

- a. [Logarithm War Activity Card Game](#)

9. Rational Functions

- a. [9.3 Rational Equations and Graphs Activity](#)

10. Function Operations

- a. [Function Operation Row Game](#)