

# Teaching Thinking

We have been teaching thinking for a number of years **implicitly**, however, the mandate and the work that lies ahead is to teach thinking **explicitly**.

## Promoting a culture of thinking:

### New Curriculum Implementation

#### Core Competencies

- Critical and Creative Thinking

#### Curricular Competencies

- Based on the Core Competencies
- Thinking (critical, creative, and reflective) is found in all curricular subjects
- Computational Thinking (Coding) in Applied Design, Skills and Technologies



### Thinking Rubric

Aspect	Not Yet Within Expectations	Meets Expectations (Minimal Level)	Fully Meets Expectations	Exceeds Expectations
<b>CRITICAL THINKING</b> The student is able to demonstrate the ability to make connections and accept the viewpoints of others in order to solve problems based on evidence.	<ul style="list-style-type: none"> <li>• Questions are not relevant and/or logical</li> <li>• Has difficulty making connections</li> <li>• Has difficulty making inferences/predictions</li> <li>• Has difficulty making decisions based on evidence</li> </ul>	<ul style="list-style-type: none"> <li>• Asks relevant and/or logical questions some of the time</li> <li>• Makes simple connections</li> <li>• Makes simple inferences/predictions</li> <li>• Requires support to make decisions based on criteria and/or evidence</li> </ul>	<ul style="list-style-type: none"> <li>• Asks relevant and logical questions</li> <li>• Makes relevant connections</li> <li>• Makes logical inferences/predictions based on evidence</li> <li>• Makes decisions based on criteria and evidence</li> </ul>	<ul style="list-style-type: none"> <li>• Asks relevant and insightful questions</li> <li>• Makes complex and relevant connections</li> <li>• Makes complex inferences/predictions based on evidence</li> <li>• Makes and justifies decisions based on evidence</li> </ul>

- Created in Chilliwack by a team of educators
- Focus on:
  - Critical, Creative, & Reflective Thinking

### Assessment and Instruction That Features Thinking:

- SNAP (Student Numeracy Assessment and Practice)
- RAD (Reading Assessment District)
- School Wide Write
- Design Thinking Projects
- Inquiry Based Learning

### Lesson Design

We can support the teaching/use of Thinking Strategies "by design". Here are some common lesson design frameworks:

- Connect, Process, Transform, Reflect
- Prepare, Learning Sequence, Authentic Application, New Thinking
- Empathize, Define, Ideate, Prototype, Test

Lessons that follow these learning frameworks use thinking strategies to process material and get to big ideas through analysis, synthesis, inference and reflection.

### District Initiatives:

- Pro-D/In-Service
  - Helping Teacher In-service
  - PVP Meetings and Toolkits
  - Multiple Pro-D Days
  - After school sessions
  - SPARK
- Inquiry
  - Teacher Focus Groups
  - PVP
- Resource Development



## Where are we on this journey?

Improving Student Achievement and Well Being Through High Quality Instruction

### Goal #2 (Thinking)

To what extent are teachers using instructional strategies that engage students and promote critical, reflective, and creative thinking?

Not Aligned

Approaching Alignment

Fully Aligned

Innovative





## Thinking Rubric

Aspect	Not Yet Within Expectations	Meets Expectations (Minimal Level)	Fully Meets Expectations	Exceeds Expectations
<p><b>CRITICAL THINKING</b></p> <p>The student is able to demonstrate the ability to make connections and accept the viewpoints of others in order to solve problems based on evidence.</p>	<ul style="list-style-type: none"> <li>• Questions are not relevant and/or logical</li> <li>• Has difficulty making connections</li> <li>• Has difficulty making inferences/predictions</li> <li>• Has difficulty making decisions based on evidence</li> <li>• Demonstrates little understanding of others' points of view / perspectives</li> <li>• Has difficulty forming simple and/or relevant evaluations</li> </ul>	<ul style="list-style-type: none"> <li>• Asks relevant and/or logical questions some of the time</li> <li>• Makes simple connections</li> <li>• Makes simple inferences/predictions</li> <li>• Requires support to make decisions based on criteria and/or evidence</li> <li>• Demonstrates some understanding of others' points of view / perspectives</li> <li>• Requires support to evaluate (may not be based on criteria and/or evidence)</li> </ul>	<ul style="list-style-type: none"> <li>• Asks relevant and logical questions</li> <li>• Makes relevant connections</li> <li>• Makes logical inferences/predictions based on evidence</li> <li>• Makes decisions based on criteria and evidence</li> <li>• Demonstrates understanding of others' points of view / perspectives</li> <li>• Evaluates based on criteria and evidence</li> </ul>	<ul style="list-style-type: none"> <li>• Asks relevant and insightful questions</li> <li>• Makes complex and relevant connections</li> <li>• Makes complex inferences/predictions based on evidence</li> <li>• Makes and justifies decisions based on evidence</li> <li>• Demonstrates ability to incorporate others' perspectives into thinking process</li> <li>• Evaluates and justifies based on criteria and evidence</li> </ul>
<p><b>CREATIVE THINKING</b></p> <p>The student is able to demonstrate curiosity through asking questions and making connections, take learning risks and synthesize ideas in new, innovative and productive ways.</p>	<ul style="list-style-type: none"> <li>• Has difficulty demonstrating curiosity</li> <li>• Has difficulty being open-minded and flexible</li> <li>• Has difficulty taking risks with new learning</li> <li>• Has difficulty making inferences / predictions</li> <li>• Has difficulty accepting uncertainty in the learning process</li> <li>• Has difficulty making connections</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates curiosity some of the time through questioning</li> <li>• Is open-minded and flexible some of the time</li> <li>• With support is willing to take risks with new learning</li> <li>• Makes simple inferences / predictions</li> <li>• With support accepts uncertainty in the learning process</li> <li>• Makes simple connections</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates curiosity through questioning</li> <li>• Is open-minded and flexible most of the time</li> <li>• Willingness to take risks with new learning</li> <li>• Makes inferences / predictions with some insight</li> <li>• Accepts uncertainty in the learning process</li> <li>• Makes deep, relevant connections</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates curiosity and initiates action</li> <li>• Is consistently open-minded and flexible</li> <li>• Independently and confidently takes risks with new learning</li> <li>• Makes insightful inferences / predictions</li> <li>• Values the uncertainty in the learning process</li> <li>• Makes complex and relevant connections</li> </ul>

	<ul style="list-style-type: none"> <li>• Needs guidance to think creatively in a productive way</li> <li>• Has difficulty synthesizing new ideas and information</li> <li>• Has difficulty extending thinking through innovation</li> </ul>	<ul style="list-style-type: none"> <li>• With support is able to think creatively in a productive and responsible way</li> <li>• With support is able to synthesize new ideas and information</li> <li>• With support is able to extend thinking through innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Thinks creatively in a productive and responsible way</li> <li>• Synthesizes new ideas and information</li> <li>• Extends thinking through innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Creative thinking is flexible, complex, and/or innovative</li> <li>• Independently synthesizes new ideas and information</li> <li>• Strategically and independently extends thinking through innovation</li> </ul>
<p><b>REFLECTIVE THINKING</b></p> <p>The student is able to think metacognitively by making connections, explaining their thinking, and selecting specific strategies that support their learning.</p>	<ul style="list-style-type: none"> <li>• Has difficulty setting learning goals</li> <li>• Has difficulty making connections</li> <li>• Has difficulty explaining their thinking</li> <li>• Has difficulty making choices</li> <li>• Has difficulty identifying ways to improve learning</li> <li>• Unable to be honest with self or confront own beliefs, biases and/or ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Sets learning goals with support</li> <li>• Makes simple connections</li> <li>• With support is able to explain their thinking</li> <li>• With support, makes decisions to support learning</li> <li>• With support identifies ways to improve learning</li> <li>• Requires support to be honest with self through confronting own beliefs, biases and/or ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Sets learning goals independently</li> <li>• Makes deep, relevant connections</li> <li>• Is able to explain thinking</li> <li>• Makes choices that supports learning</li> <li>• Identifies strategies to improve learning</li> <li>• Is honest with self through confronting own beliefs, biases and ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Sets specific and accurate learning goals</li> <li>• Makes complex and relevant connections</li> <li>• Accurately and/or concisely explains their thinking</li> <li>• Makes choices that best supports learning</li> <li>• Strategically and independently identifies strategies to improve learning</li> <li>• Is honest with self through confronting and questioning own beliefs, biases and ideas; is self-reflective</li> </ul>

Sample 'I can' statements:

I can think metacognitively

This means...

- I can identify what worked and what didn't work in relation to my goal
- I can identify what helped my learning
- I can identify what to do next