Acknowledgement

We would like to acknowledge that we are on Treaty 6 territory, traditional meeting ground, gathering place, and travelling route to the Cree, Saulteaux, Blackfoot, Métis, Dene, and Nakota Sioux. We also acknowledge the many First Nations, Métis, and Inuit whose footsteps have marked these lands for time immemorial.

We would also like to acknowledge the traditional knowledge holders and Elders who are still with us today and those who have gone before us.
Goals for Our Session

1. Create an awareness of concept-based curriculum theory and how it differs from a knowledge-skills-attitudes (KSA) approach to curriculum.

2. Begin to develop a working knowledge of the architecture and design of Alberta’s new concept-based curriculum.
Two Classic Questions in Curriculum-development Work

- What do we want students to learn?
- How do we want to organize that learning?
Current Curriculum

- Current curriculum is based on knowledge, skills, and attitudes (KSA).
- It features a two-dimensional design; emphasizes coverage of content knowledge that students learn (facts) and specific strategies and skills that students perform (skills).

Knowing is a primary goal and endpoint in itself.
- Verbs within learning outcomes direct students from a behaviouralistic lens.
Why Shift to a Concept-based Curriculum?

Concept-based curriculum provides...

• a means to reduce an overloaded curriculum
• a way to raise academic standards by bringing relevance and rigour to learning
• more opportunities for interdisciplinary teaching and learning
• an emphasis on higher-level thinking skills, such as analysis, synthesis, and evaluation, as students apply concepts to other contexts
• greater latitude for teachers’ professional judgement and local decision making based on students’ needs and local context
The Alberta Context for Concept-based Curriculum
“Students are becoming conceptual thinkers who have the abilities to examine factual information critically, relate new learning to prior knowledge, see patterns and connections, draw out significant understandings at the conceptual level, evaluate the truth of these understandings based on the supporting evidence, transfer understandings across time or situation, and, often, use a conceptual understanding creatively to solve a problem.”

## Curriculum Shift

<table>
<thead>
<tr>
<th>Knowledge, Skills, and Attitudes</th>
<th>Concept-based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is based primarily on topics, skills, and facts.</td>
<td>Focuses on the transfer of the important conceptual ideas of a discipline.</td>
</tr>
<tr>
<td>Content focuses on facts that are often isolated and disconnected. Knowledge is fragmented.</td>
<td>Concept-based focuses on making sense of facts and the world around us. Knowledge is presented as a “whole.” Understand the relationship between individual facts, principles, or generalizations.</td>
</tr>
<tr>
<td>Verbs are used to tell students what to know or do.</td>
<td>Concept-based is a thinking curriculum. The verb describes the ways through which we come to understand the concept.</td>
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<tr>
<td>Represents a two-dimensional design model that includes process and content knowledge.</td>
<td>Has a third dimension—conceptual understanding.</td>
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<tr>
<td>Content-based teaching may not get beyond the transmission of superficial learning.</td>
<td>Concept-based curriculum focuses on critical concepts and processes students will be able to transfer to new situations.</td>
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<tr>
<td>Asks teachers to cover long lists of content and skill objectives … but knowledge expands exponentially and there is not enough time to cover everything. Simply covering information does not result in deep understanding.</td>
<td>Key concepts (ideas) of a discipline become the “drivers” for learning, leading students to deeper understandings that transfer across different situations.</td>
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</table>
Concept-based Curriculum in Action
Curriculum Architecture and Design
K–12 Subject Introductions

- intended to provide the justification for why the subject is learned and how the subject addresses student and societal needs now and in the future

- intended to describe the subject and its purpose as it relates to the education of students in K–12
Organizational Structure for Future Provincial K–12 Curriculum
One of the big ideas of the subject/across subjects, K–12

Derived from the EU and frame LO(s) for the grade

What students are expected to know, understand, be able to do and put into action after planned learning experiences

What students should know and understand to achieve the Learning Outcome

Reading the Draft Curriculum

Competencies, Literacy and Numeracy
What is a Concept?

“… a mental category [that] allows us to identify and classify objects, events or ideas, building on the notion that they are similar in significant ways and/or have certain common, relevant features”

A concept is...

When determining what a concept is, we consider the following criteria:

**Timeless** – The concepts that frame the content of our disciplines will always be with us.

**Universal** – Concepts are the same across the world.

**Abstract and broad** – By nature, concepts are abstract and broad in order to provide for a variety of examples.
Defining Critical Attributes of Concepts

- Responsibility
  - being the cause of something
  - having control over something
  - honesty and trust
Defining Critical Attributes of Concepts

LIVING THINGS

- able to respire
- able to adapt to the environment
- able to metabolize
- able to respond to stimuli
- able to grow
- requires energy to survive
- able to reproduce
- an organized structure made up of a cell or cells
Organizational Structure for Future Provincial K–12 Curriculum
Procedures

- Procedures are the method and tools; presented as a verb.
- Verbs ensure that students are developing deeper levels of conceptual understanding. (Erickson, 2002)
- Verbs are the ways through which the student will come to understand the concept. (Erickson, 2008)
Learning Outcomes

- are broader in nature
- support depth of learning that leads to deep understanding
- facilitate holistic development across the learning domains (intellectual, physical, social, spiritual, emotional)
- provide context for development of competencies
- support literacy and numeracy development within and across subjects
• derived from the concepts and procedures outlined in scope and sequence

• describe what students are required to know, understand, and be able to do

• conceptual knowledge and procedural knowledge represent the “unpacking” of a learning outcome
Conceptual and Procedural Knowledge

• include the specific, critical knowledge and understanding of the concepts and procedures in the learning outcome(s)

• the combination of conceptual knowledge and procedural knowledge helps to move students towards deep understanding

• represent a baseline for what students are required to know, understand, and do in order to achieve the learning outcome
Conceptual and Procedural Knowledge

- represent what students are **required** to **know, understand, and do** in order to achieve the learning outcome(s)
- not exhaustive in order to allow for community context and flexibility of teacher judgement
The Interaction of Conceptual and Procedural Knowledge

Conceptual Knowledge:
what students need to know and understand at the level of the “concept” as opposed to knowing isolated facts

Procedural Knowledge:
knowing how, why, and when to apply the processes, strategies, and skills appropriate to a given task; the methods and tools
The Interaction of Procedural and Conceptual Knowledge

**Conceptual Knowledge:**
- plants and animals change in appearance and activities during different stages of life cycles

**Procedural Knowledge:**
- examine plants and animals at various stages of development
Concepts found in Essential Understandings provide breadth

MICROconcepts found in the CK’s and PK’s provide discipline depth
Breadth vs. Depth

Relationships

Collaboration — Language Arts
Land, Place — Social Studies
Connections — Arts Education
Stewardship — Science
Patterns — Math
Friendship, Healthy Relationships — Wellness
Investigating change and the diversity of Earth’s systems helps us to develop understandings of the conditions necessary to sustain life.

How do living things grow and experience change?

Concepts: living things change

Procedures: investigate analyze

Students investigate and analyze life cycles of different plants and animals.

Conceptual: living things, plants, animals, life cycles

Procedural: predict, represent, observe, identify, compare, examine
An Interdisciplinary Approach

- Disciplinary
- Multidisciplinary
- Interdisciplinary
- Transdisciplinary
What Is the Purpose of Shared Essential Understandings?

• span more than one subject

• may be appropriate when interdisciplinary opportunities are present in two or more subjects

• reinforce the notion of interdisciplinarity

• help to bring focus to authentic learning
Learning outcomes delineate what students are expected to know, understand, and be able to do independently at the completion of a grade level.

Assessing each conceptual knowledge or procedural knowledge bullet individually is not supportive of students’ understanding of the learning outcome.

A more holistic approach to assessment is necessary.
## What Is Assessed and Reported?

### Essential Understanding:
Developing and affirming identity contributes to well-being and understandings of self and one another.

### Guiding Question:
How can engaging with diverse texts help me develop an understanding of self?

### Learning Outcome:
Students explore and share connections between diverse texts and personal experiences that develop an understanding of self.

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### Grade Two

#### Conceptual Knowledge:
Students know and understand that...
- stories of home, community, and culture represent self
- connections between texts and personal experiences build awareness of self

#### Procedural Knowledge:
- connect texts and personal experiences, recognizing that personal experiences of home, community, and culture influence self
- express awareness of self through engagement with and creation of texts

#### Competencies
- Personal Growth and Well-being
- Cultural and Global Citizenship
- Critical Thinking
- Creativity and Innovation

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#### Literacy Progression
- Background Knowledge
- Comprehension Strategies

#### Numeracy Progression
- None identified

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Teachers are to assess and report on the learning outcome.
Discussion

● What would I have to do with my program to align with new curriculum vs. what I’ve done in the past
● What kinds of resources will teachers be looking for?
● Where currently are the best connections
Questions
Thank you!