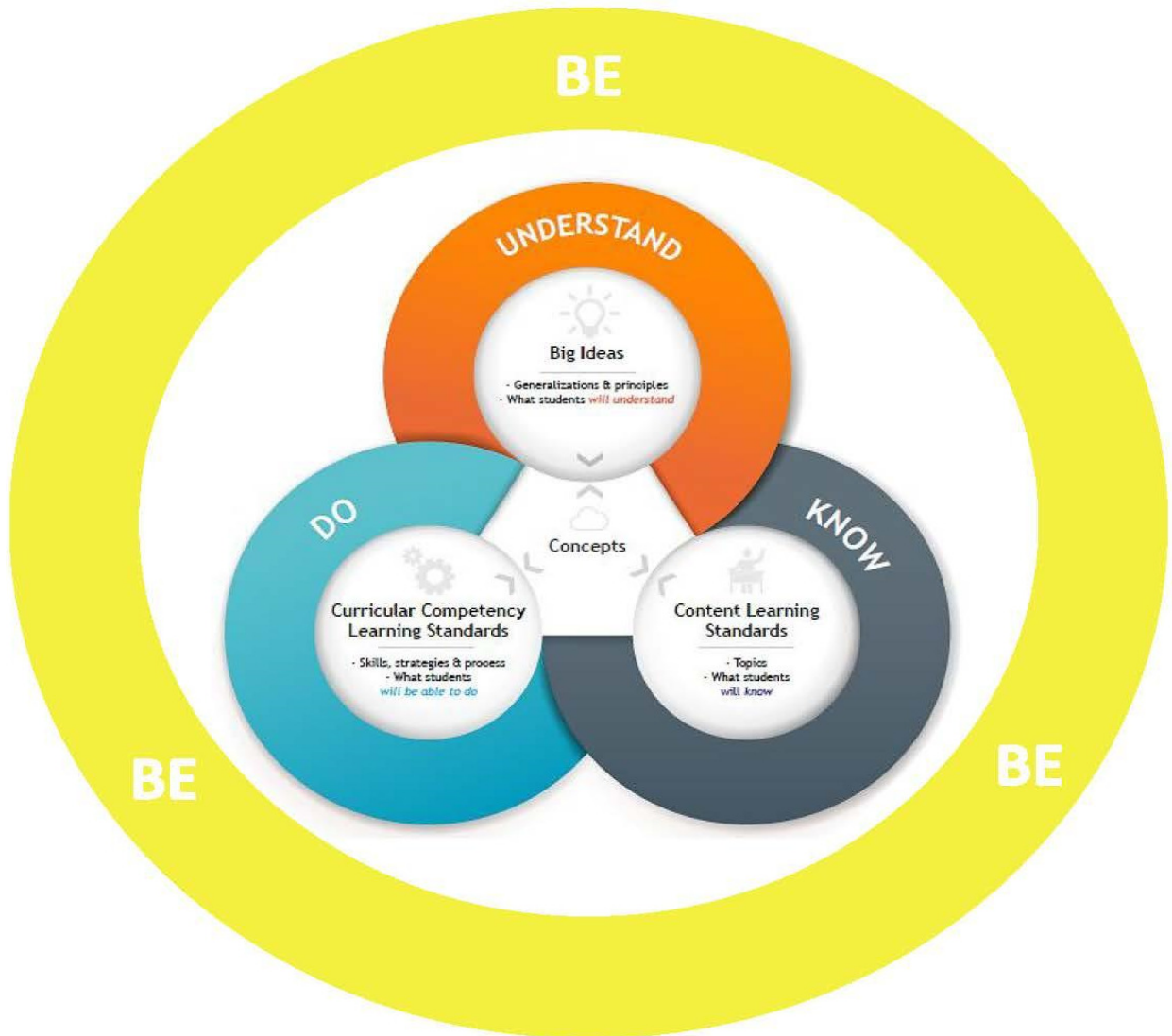


Life Sciences 11

Course Outline



Life Sciences 11 is comprised of the Big Ideas, Curricular Competencies, and Content. Overarching the subject specific curriculum are Core Competencies that are embedded into every subject and grade.

The curriculum has been redesigned to meet the needs of the 21st Century Learner. More information can be found on the Ministry of Education website. (<https://curriculum.gov.bc.ca/curriculum/overview>)

An overview of the new approach to Science can also be found on the ministry website. (<https://curriculum.gov.bc.ca/curriculum/science/core/introduction>)

Core Competencies



- **Communication** -The communication competency encompasses the set of abilities that students use to impart and exchange information, experiences and ideas, to explore the world around them, and to understand and effectively engage in the use of digital media.



- **Thinking** - The thinking competency encompasses the knowledge, skills and processes we associate with intellectual development. It is through their competency as thinkers that students take subject-specific concepts and content and transform them into a new understanding. Thinking competence includes specific thinking skills as well as habits of mind, and metacognitive awareness.
 - **Creative Thinking**
 - **Critical Thinking**



- **Personal and Social** - Personal and social competency is the set of abilities that relate to students' identity in the world, both as individuals and as members of their community and society. Personal and social competency encompasses the abilities students need to thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world.
 - **Positive Personal & Cultural Identity**
 - **Personal Awareness & Responsibility**
 - **Social Responsibility**

Big Ideas:

- Life is a result of interactions at the molecular and cellular levels.
- Evolution occurs at the population level.
- Organisms are grouped based on common characteristics.

Curricular Competencies:

- Questioning and predicting
- Planning and conducting
- Processing and analyzing data and information
- Evaluating
- Applying and innovating
- Communicating

(A more detailed list can be found at <https://curriculum.gov.bc.ca/curriculum/science/11/courses>)

Mr. Wilkison

Content:

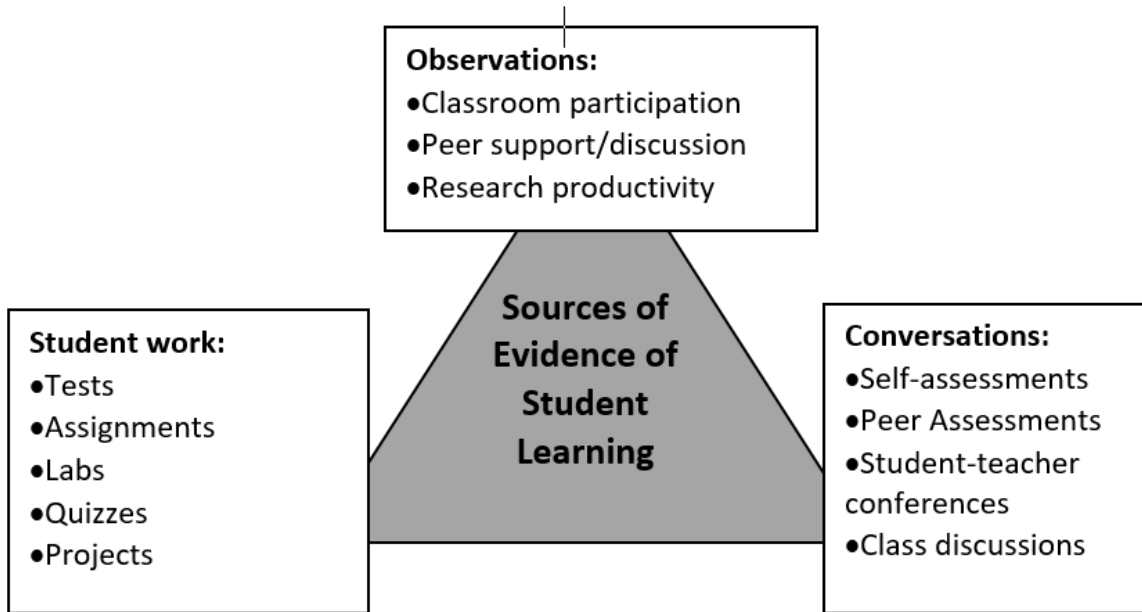
- levels of organization
- cell structure and function
- sexual and asexual reproduction
- energy transformations in cells
- viruses
- first peoples understandings of interrelationships between organisms
- Microevolution
 - Adaptations to changing environments
 - Changes in DNA
 - Natural selection
- Macroevolution
 - Speciation
 - Processes of macroevolution
 - Evidence for macroevolution
- artificial selection and genetic modification
- single-celled and multi-celled organisms
- trends in complexity among various life forms
- evidence for phylogenetic relationships
- taxonomic principles for classifying organisms
- binomial nomenclature
- first peoples knowledge on classification
- similarities between domains and kingdoms

First Peoples knowledge and perspectives:

The Science curriculum is designed to acknowledge, recognize, and respect the First Peoples Principles of Learning. It is important for teachers to use these principles to guide the integration of First Peoples knowledge and perspectives into the Science curriculum in meaningful ways. As well, the Science curriculum aims to address the Calls to Action of the Truth and Reconciliation Commission, particularly the call to "integrate Indigenous knowledge and teaching methods into classrooms" (clause 62) and "build student capacity for intercultural understanding, empathy and mutual respect" (clause 63).

Assessment

Along with new curriculum, traditional assessment practices are also being reformed. Evidence of student learning regarding the Big Ideas, Curricular Competencies, and Content will be collected in a number of ways:



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