THOMPSON RIVERS UNIVERSITY | Education & Social Work

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM Lesson Plan

Lesson Title: The Woman Who Fell From The Sky Lesson # 2 Date: 03/05/2022

Name: Ian Paluck Subject: Science Grade(s): 2

Rationale:

This lesson builds off of an earlier lesson about physical changes through a western lens.

The goal of this lesson is to de-colonize the way students think about physical land formations. This lesson introduces the concept of Turtle Island through the story "The Woman Who Fell From The Sky". This story discusses how Turtle Island was formed. Students will; therefore, have to consider how landscapes are formed through and Indigenous lens (particularly Huron and Iroquois).

Core Competencies:

Communication	Thinking	Personal & Social
• Communicating Connecting and engaging with others – "Students engage in informal and structured conversations in which they listen, contribute, develop understanding and relationships, **and learn to consider diverse perspectives**." *This is likely the first time that students have heard the story "The Woman Who Fell From The Sky", they will engage in questions from the teacher to understand how landscapes are formed through an Indigenous lens.*	• Critical thinking Analyzing and Critiquing - "Students learn to analyze and make judgments about a work, a position, a process, a performance, or another product or act. **They reflect to consider purpose and perspectives**, pinpoint evidence, use explicit or implicit criteria, make defensible judgments or assessments, and draw conclusions" Reflecting and Assessing – "Students apply critical, metacognitive, and reflective thinking in given situations, and **relate this thinking to other experiences, using this process to identify ways to improve or adapt their approach to learning.** They reflect on and assess their experiences, thinking, learning processes, work, and progress in relation to their purposes. *With the introduction of a new way to understand how land is formed, the students will need to reflect on Indigenous concepts and how they fit into their pre-existing knowledge. Students will*	• Positive personal and cultural identity Self-Regulating – "Students who are personally aware and responsible take ownership of their choices and actions. They set goals, monitor progress, and understand their emotions, using that understanding to regulate actions and reactions. **They are aware that learning involves patience and time.** They can persevere in difficult situations, and to understand how their actions affect themselves and others." • Personal awareness and responsibility Understanding relationships and cultural contexts – "Students understand that their relationships **and cultural contexts help to shape who they are.** This includes culture in its broadest sense, including how one identifies in terms of ethnicity, nationality, language(s), abilities, sexual orientation, gender identity, age, geographic region, and religious or spiritual beliefs. **Students**

	also be challenged to accept new ideas as being valid.	explore who they are in terms of their relationship to others and their relationship to the world (people and place) around them." • Social responsibility Building Relationships – "Students build and maintain diverse, positive peer and intergenerational relationships. They are aware and respectful of others' needs and feelings and share their own in appropriate ways. They adjust their words and actions to care for their relationships." Valuing Diversity – "Students value diversity, defend human rights, advocate for issues, and interact ethically with others. They are inclusive in their language and behaviour and recognize that everyone has something to contribute. Their approach to inclusive relationships exemplifies commitment to developing positive communities." *Indigenous worldviews are centered on building relationships with each other, and the environment equally. This lesson explores our relationship with the natural environment and how it was created.*

Big Ideas (Understand)

Materials can be changed through physical and chemical processes.

Learning Standards

(DO)	(KNOW)
Learning Standards - Curricular Competencies	Learning Standards - Content
CC#1 – Demonstrate curiosity and a sense of wonder about the world. CC#2 – Observe objects and events in familiar contexts – (how landscapes are formed)	C#4 – Physical ways of changing materials.

CC#3 – Ask questions about familiar objects and events – (ex. is this change physical or chemical?) CC#14 – Consider some environmental consequences of their actions CC#16 – Transfer and apply learning to new situations (ex. considering how landscapes are formed according to oral tradition). CC#19 – Communicate observations and ideas using oral or written language, drawing, or role-play CC#20 – Express and reflect on personal experiences of place. (specifically in relation to land).	

Instructional Objectives & Assessment

Instructional Objectives (students will be able to…)	Assessment
• Students will be able to consider Indigenous ways of knowing is relation to physical change.	"3 minute pause journal entry" - Guiding questions to be answered: • I changed my attitude about… • I became more aware of… • I was surprised about… • I felt… • I related to… • I empathized…

Prerequisite Concepts and Skills:

- Have a basic understanding of physical change through a western lens
- Be open to Indigenous ways of knowing
- Listen respectfully

Indigenous Connections/ First Peoples Principles of Learning:

- "Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors"
    - Through learning about our role is physical and chemical change, as well as our acceptance of Indigenous knowledge about land we will be thinking about what kind of citizen we want to be, and how we want to treat the land.
- "Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)."
    - This unit is largely experiential. Science is experiential, we are going to be doing much more than talk about facts. Again, we are also reading "the woman who fell from the sky", which focuses on reciprocal relationships with land and animals to achieve harmony.
- "Learning involves recognizing the consequences of one's actions"

- So much of science is cause and effect. We are going to be talking about what actions/changes are reversible, and which ones are not. What does it mean to cause irreversible harm to ourselves, our land, our community members?

- "Learning recognizes the role of Indigenous knowledge"

  - One of the major learning intentions for this lesson is to have the kids recognize that Indigenous knowledge about how things change (particularly how land was formed) is equally valid as a western view about how things change.

Universal Design for Learning (UDL):

This lesson provides:
Indigenous worldviews (on landscape/Turtle Island), providing an inclusive classroom for Indigenous students, and gives non-Indigenous students an opportunity to understand potential worldviews of their classmates.

Storytime is engaging and benefits auditory learners.

Animations/enthusiasm of teacher creates an experience for all learners, but will be particularly useful to auditory and visual learners.

Mosaic activity benefits kinesthetic learners, and also gives students autonomy to create a piece of work however they choose.

Students may journal or draw in place of mosaic activity if they choose.

Key points of story can be put on the smartboard/PowerPoint for students to read – some students excel at reading and writing aspects of learning, they may need concrete words on the board to enhance their learning. Also, serves as a reminded of the story's events for all students.

Differentiate Instruction (DI):

Another option for this lesson is to print the story out and let the student(s) follow along,

Student(s) can draw how they saw the story in their mind as it was being read/the can draw their favorite part.

Students can journal in place doing the mosaic.

Materials and Resources

Bring copy of "The Truth About Stories" – Thomas King, construction paper, scissors, glue, Turtle Island templates, birthday streamers in various colors (but especially green for turtles and blue for water), water colour, pencil crayons, crayons.

Teacher should make their own turtle mosaic prior to class to model for the students. (What it might look like/ideas)

Lesson Activities:

Teacher Activities	Student Activities	Time

Introduction (anticipatory set – "HOOK"): Storytime folks, join me in the circle at the back on the class. Has anybody heard the story about "the woman who fell from the sky"? I need you all to be really respectful and pay attention to this story. It is a story about" Turtle Island", and how the land was created.	Students join the circle and get settled.	5 min.
Body: This story is called "the woman who fell from the sky" Read story – 15 min (use lots of inflection, and animation) Can anybody tell me if they heard me talk about any physical changes? - The woman had twins, o One made the forests nicely and easy to navigate, the other came and mixed the trees up; making it difficult to find our way through. Physical or chemical change? o One made the rivers flow in both directions so all the animals could swim up them easily, the other came and twisted them up and put rocks in them; making it harder for the animals to come and go. Physical or chemical change? o One twin made the land nice and flat, the other twin came and stomped around in the mud and piled it up; creating large mountains and deep valleys. Physical or chemical change? *The point I'm trying to make here is that there are multiple ways of knowing how land is formed. We are still talking about physical changes here. Some people will say that these land formations were formed by* ***weathering erosion (discussing erosion in depth would be an extension)****, while others, like the Huron and Iroquois, believe that land was formed by the*	Students listen to story Answer period	15 min. 10 min.

twins. Both ways are equally valid, and we need to respect others believe, even if it is different than ours.. We do not all need to agree with each other, but we need to be kind to one another. Introduce mosaic activity: You can cut, rip, glue, paint, colour, whatever you want.	Students will be completing a mosaic activity. They will get a template of a turtle (in the spirit of turtle island. And will design it by colouring it, maybe painting it, ripping colored paper pieces and gluing it to the turtle template, etc.. they have autonomy here.	25 min.
Closure: Remember, when we rip things, or glue them, or change their color, what kind of changes are we making? PHYSICAL!!! Remember that not all of us have the same ideas or beliefs about how things change, and that is OK. Thank you for being kind.	Students clean up, and share their turtle island mosaics.	5 min.

Organizational Strategies:

Circle talk story time to start the class. Student's break into groups to work on their mosaic.

Proactive, Positive Classroom Learning Environment Strategies:

Circle talks/story time promotes equality. Group work promotes collaboration of ideas about the story and the activity. Teacher should use lots of inflection and animation during the story to hold the students attention.

Extensions:

Possible extensions would be exploring local landforms such as "coyote rock" outside of Savonna and the telling that surround it. We would again be challenging ideas about how land was formed. Coyote rock is a boundary marker created by coyote in local Indigenous telling. A western view on this would rationalize this by speaking about erosion and weathering. We would then get into a deeper conversation about erosion and weathering.

There are so many stories that relate to how land was formed that we could get into. We would focus on paralleling ideas about physical and chemical changes – continuously de-colonizing the students thinking about changes.

"The Woman Who Fell From The Sky" could be cross-curricular as well in relation to Social Studies. Community is a big part of the Social Studies curriculum, and this story has heavy themes of having reciprocal relationships with animals and the environment.

Reflections (if necessary, continue on separate sheet):

If it turns out that the students are too antsy to sit for a 15 minute read aloud story then I would consider finding a YouTube video that tells the story.

I believe that reading the story in a circle talk with the students will be an interactive experience that will work, and will be more exciting than sitting at their desks to watch a video. It reflects Indigenous ways of knowing in the form of storytelling. Being in the circle builds our sense of community, we through story and experience.