

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

| _esson Title: | Svusem Berry Id | | Lesson # | 4 | Date: | |
|---|--|--|----------------------------|--|--|-----|
| | Sxusem Berry Ice Cream Jessica Nelson | | | | Grade(s) | |
| Name: | | | _ Subject: | Science | _ : | 5/6 |
| | encies: | | | ally thinkin | g to solve probl | |
| | gage in informal and | | Personal & Social response | | | |
| structured co which they li develop und relationships | onversations in isten, contribute, erstanding and s, and learn to erse perspectives. | Critical thinking -Students learn to engage in inquiry when they identify and investigate questions, challenges, key issues, or problematic situations in their studies, lives, communities and in the media. Creative thinking -Students may generate creative ideas through free play, engagement with others' ideas, consideration of a problem or constraint, and/or because of their interests and passions. | | -Studendiverse, intergendiverse, interge | Social responsibility -Students build and maintain diverse, positive peer and intergenerational relationships. They are aware and respectful of others' needs and feelings and share their own inappropriate ways. They adjust their words and actions to care for their relationshipsStudents will need to maintain positive relations with their peers as they work through group work in this unit. | |
| Everyday materi | ials are often mixtures. | | | | | |
| Learning Stan | odards (DO) | | | (KN | OW) | |
| Learning Standards - Curricular Competencies | | Learning Standards - Content | | | | |
| Questioning and predicting CC2. Make observations in familiar or unfamiliar contexts Processing and analyzing data and information CC11. Identify First Peoples perspectives and knowledge sources of information. | | C3. Mixtures: • Separated using a difference in component properties. Local First Peoples knowledge of separation and extraction. | | | | |
| Communicating | g | | | | | |
| CC26. Communicate ideas, explanations, and processes in a variety of ways | | | | | | |

Instructional Objectives & Assessment

| Instructional Objectives (students will be able to) | Assessment | |
|---|--|--|
| Students will be able to interact with traditional berry picking and try traditional food/medicines. They will also review all the material we learned in the previous three lessons. | Students' will be assessed as a group on their ability to answer review questions. Students' reflection paragraphs or drawings will also be assessed by the teacher and the teacher will give descriptive feedback. | |

Prerequisite Concepts and Skills:

- -Students should have a basic understanding of mixtures.
- -Students should have the skills necessary to work in groups.
- -Students should have some ability to critically think about science.

Indigenous Connections/ First Peoples Principles of Learning:

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).

- Students will be participating in hands-on learning and therefore will be learning in an experiential format. Students will be working with one another collectively while experimenting with mixtures and therefore will be learning in a relational environment.

Learning recognizes the role of Indigenous knowledge.

- Students will be partaking in the creation of and trying sxuesm berry icecream and have an understanding of where these berries and recipes came from.
- Students will be reminded that learning involves patience and time and that they can work through problems to understand the material. The lessons are all taught in a way where students are given time to work through the material instead of fast-paced lectures.

Universal Design for Learning (UDL):

1. Multiple Means of Representation - I provide for multiple means of representation in this lesson in the following ways:

- -Tactile learners will learn through experimenting for themselves. In this unit they will be creating mixtures, working through stations, and testing to find solubility all through hands-on activities.
- -Interpersonal learners will be able to learn through class discussion and collaboration.

2. Multiple Means of Action and Expression - I provide for multiple means of action and expression in the following ways:

- -Students will have an opportunity to express themselves hands-on through experiments. All of the lessons have hands-on components that the teacher will be observing.
- -Students will have an opportunity to express themselves through writing. There is an exit ticket, a reflection, and group worksheets. Students who enjoy this type of work will be able to demonstrate their knowledge through this.
- -Students will be able to express verbally themselves one-on-one with the teacher. As students work on stations the teacher will be walking around and connecting with students. This will give students an opportunity to communicate with the teacher.

3. Multiple Means of Engagement - I provide multiple means of engagement in this lesson in the following ways:

- -Students may be engaged by the opportunity to work hands-on through experiments.
- -Students may be engaged through the small group work/discussion.

Differentiate Instruction (DI):

- -Students will be working in groups so that they can offer each other support in areas where not everyone is confident.
- -Students who are not good writers will be able to have other group members write down what is needed for the activity.

Materials and Resources

Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).

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Lesson Activities:

| Teacher Activities | Student Activities | Time |
|---|--------------------|------|
| Introduction (anticipatory set – "HOOK"): | | |
| -Review Game: The teacher will start with a | | |
| review game that is created on a google slide board | | |
| game template. Students will be put in groups of | | |
| four and be given a whiteboard and whiteboard | | |
| pens. The teacher will display the question and | | |
| give students one minute to write down their | | |
| answers. | | |
| -Whiteboard and markers will be handed in at the | | |
| end of the game and students will return back to | | |
| their seats. | | |
| Body: | | |
| -The teacher will tell the students that we will be | | |
| making Indigenous ice cream from sxuesm berries. | | |
| The teacher will discuss where the berries came | | |
| from. Who picked them and where they were | | |
| picked. | | |
| -Teacher will then discuss medicinal properties and | | |
| traditional usage. | | |
| -The teacher will ask for volunteers to add in the | | |
| sugar and sxuesm berry juice and to mix the | | |
| mixture with the hand mixer. | | |

| -While the ice cream is being made and changing | |
|--|--|
| consistency teacher will ask students to turn to a | |
| partner or table group and talk about observations. | |
| Then the teacher will ask groups to share with the | |
| class. The teacher will also ask groups what type of | |
| mixture they think this is (mechanical, suspensions, | |
| solution). | |
| -Students will get a chance to try the ice cream if | |
| possible? | |
| Closure: | |
| -Students will have 10 minutes to reflect on this | |
| activity. They can do this in the form of a | |
| paragraph or they can draw a picture. Possible | |
| picture ideas would be a before and after of all the | |
| ingredients and a reflection could be explaining the | |
| changes that occurred. | |
| | |

Organizational Strategies:

- -The teacher will get students' attention via "If you can hear me, do what I am doing."
- -Have students complete the review games as a group so they can discuss possible answers before writing them down.
- -Teacher will use a whiteboard and markers so that answers can easily be displayed and erased.
- -Teacher will have them complete a reflection to have students think about their learning.

| Proactive, Positive Classroom Learning Environment Strategies: | |
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Extensions:

-The unit could have gone more in-depth into First People's use of separation and extraction methods.

Reflections (if necessary, continue on separate sheet):