THE UNIVERSITY OF BRITISH COLUMBIA
Faculty of Education

Master of Educational Technology Program

Physical Education and ADST and Making

Unit Plan- Grade 6

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THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver Campus

Master of Educational Technology

CURRICULUM AREA:
PHE, ADST

Goal: Support happy, healthy, equitable communities through making.

GRADE: Grade 6

Strands: Social and community health, Mental well-being, Applied design, Applied technologies

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Lesson Overview

After each lesson, students will reflect and contribute to a collaborative **Padlet**. This will document their learning to guide them toward a topic that inspires them for their culminating artefact.

Lesson 1: Who am I? (Joyce)
Students will use the design thinking model to explore and create their idea of what their identity is. They will develop more awareness of their class community, understand the intersectionalities that make up identity, and learn ways to become more inclusive. Students will use 'no tech' to make artifacts that represent who they are which would be displayed on their Who Am I poster and shared with their classmates.

Lesson 2: Who lives in my community? (Emily)
In this lesson students will recognize the diversity of people, experiences, and stories in the community. They will use Makey Makeys to support creation of artifacts that explore storytelling through music, play, and other diverse means.

Lesson 3: What issues are in my community? (Joe)
Students will discuss and explore issues within their community through no-tech and low-tech activities. Using Lego building blocks, textile materials, markers, and Jenga, students will be invited to place their ideas onto a classroom Padlet. They will also watch a short video where an Indigenous Elder shares the strengths and areas of need within Indigenous communities, to help students further learning and discussion on issues within their own communities.

Lesson 4: What supports are available in my community? (Paul)
This lesson is about recognizing supports that are available in the community based on the issues identified in the preceding lesson. Using this context, students will learn the basics of block coding using MakeCode and MicroBits. Students will use their coded creations to participate in a scavenger hunt to build collegiality and efficacy regarding their learning. In the last section of the lesson students will look at how the code they created is related to real world technologies. Once this connection has been made students will analyse the barriers for access for these technologies and collaboratively ideat solutions. This lesson will take approximately 3.5hr to complete.

Lesson 5: What can I do in my community? (Ryan)

This is a conceptual lesson in preparation for the culminating task. Students will begin with two provocation drama activities that open up the discussion surrounding creativity and seeing objects and opportunities with alternate lenses. Following these provocations, students will review their padlet notes and findings from the first four lessons and come up with their first conceptual idea for something they can do in/for their community. They will create a mockup using either no tech (crafting materials), low tech (3D design software) or high tech (VR design applications) to build their idea and practice presenting it to others.

Culminating Task: What can I make to improve my community?:
Students will apply the design process to identify and solve a problem in their community. They may redesign or reinvent an existing creation, tool, product, or idea but will be encouraged to draw on their previous learning from the first 5 lessons and possibly create a working version of their concept from lesson 5. They can use any technology in the makerspace.

Overview

Expectations *Overall expectations* *(Link to list of specific expectations addressed)*	**"Big Idea"** *This will be the overriding theme, question, focus for the teaching and learning inquiry.*	**Learning Goal(s)** *(Can be overall; might change throughout inquiry)*
Students will be able to: ADST - Understand context, define, ideate, prototype to create a working concept that will solve a design problem. ADST - Identify and use appropriate tools, technologies, and materials for production. ADST - Decide on how and with whom to share their product. PHE - Explore and describe how personal identities adapt and change in different settings and situations. PHE - Explore strategies for promoting the health and well-being of the community.	Design can be responsive to identified needs. (ADST 6) We experience many changes in our lives that influence how we see ourselves and others. (PHE 6) Learning about similarities and differences in individuals and groups influences community health. (PHE 6)	Our goal is to promote a happy, healthy, equitable community. Students will examine and understand their own identities before extending this understanding to others in their communities, issues that affect communities, supports available, what can be done, and finally how they can affect change to improve their communities. Student understanding will be developed through an EDIDA framework lens, with aspects of equity, diversity, inclusion, decolonization, and anti-racism explicitly discussed and unpacked in each lesson. Learning about communities, EDIDA frameworks, and support through making will be scaffolded through use of the design thinking stages. The design thinking stages will be used in each lesson for students to develop their maker ideas. Additionally, each lesson's theme emphasizes the importance of emphathizing, defining, ideating, testing, making, and sharing within their community context before influencing meaningful change through making.

Assessment For **Diagnostic Assessment** *(At the start of the cycle/unit)*	**Assessment As** *The overall teaching should prepare students to complete this task.*	**Assessment Of** **Culminating Assessment Task** *(At the end of the cycle/unit)*
Determined during lesson 1 What is the students' context? How do they define their community/self? What are the opportunities to help them broaden that view? Additionally, the **Padlet** will continue to serve as diagnostic assessment for learning throughout as it will give the educator and the student a sense of what they have meaningfully learned	Are students learning to use the tools introduced to them? Teacher check-ins, conferencing, whiteboard ideation, Are students broadening their view and understanding of each of the topics? Collaborative **Padlet** Do students need more other tools, time, training to be successful? Assessing what gets done at the end of each lesson and expanding the time and access to tools or simplifying the tools.	See **Rubric** Our *one column rubric* offers clear criteria and expectations of what that will look like in action for students. The educator has the option to clarify ways in which the student is approaching, meeting, or exceeding stated criteria by either highlighting that a particular expectation has been met or writing notes in the areas that need improvement (Emerging) or area where they are extending. The rubric is designed to be used during each lesson over the course of the unit so that students have ample opportunity to demonstrate that they have met success criteria. As the unit progresses the educator can add to the rubric to document the ways that the student has grown and improved. The second page of the rubric offers students the opportunity to reflect upon their own development and adopt a metacognitive maker mentality toward their own maker process and its evolution over the course of the unit. The prompts are based on the need for student self reflections of the core competencies. We chose the culminating task as an open ended question that students could apply their

		learning to in a variety of creative and autonomous ways. Students will use their ongoing feedback to help them recognize their strengths and stretches moving into the culminating task. The rubric will be revisited a final time to assess the culminating task and provide a detailed representation of students' entire learning journeys.

Summary (DESCRIPTION) Conceptual Development *200-300 words*	**Equity, Diversity, Inclusion, Decolonization, Anti-racism (EDIDA)** *How the unit is situated in EDIDA*	**Rationale** *Why it matters to student, why it matters to community, why it matters to world, how it connects to STEAM, EDIDA, TPACK/SAMR*
The thinking for the development of this unit was to utilise maker skills and mindsets to develop awareness around issues stemming from societal inequity. Specifically, our original thinking was to develop lessons around food and economic security and the issues that are involved. We have evolved our thinking to be more student centred and not impose learning direction on the students. Instead, the unit is focused on empowering students by having them identify the issues that are present in their context. Through this process the students are given the opportunity to develop an awareness of who they are, what groups live in their community, what issues they see, what supports are available, and	This unit is situated within the context of the diversity found within the local community with a focus on the relevant issues that impact people and place. Students will be required to examine their own experiences, then the diversity in their communities, and finally issues that diverse communities face and how to address them. Through examining and reflecting upon this context they will be guided towards discussion of equity, diversity, inclusion, decolonization, and antiracism (or lack there of) in their own lived or observed community experiences. This will help them to develop understanding of bias, prejudice, stereotypes, and inequity, and in turn the necessity of the EDIDA framework in action. The unit has been designed	**Why it matters to students:** Developing an understanding of our community raises capacities for empathy and acceptance. In many ways our situated realities have negative impacts on our societal views. This impact can manifest in many ways one of which is the reduction of perceived space and general comprehension of the scale of society. This could foster economic isolation, rigid thinking, and social isolation. **Why it matters to community:** A community is defined by its members and their attitudes and beliefs. A healthy community needs members who are aware and understanding of the benefits and challenges a community faces. **Why it matters to world:** A positive and accepting worldview leads to less isolationism and allows for openness, acceptance of other cultures, and ways of being. This is the process of building a global community who are

what they could do in their community to help. Through this empathy developing process the students will develop maker skills by completing projects that address the learning involved in each section. Each lesson is designed to deliver skills development so students can engage in a culminating project which addresses the identified issues while utilising the making skills they have learned throughout the unit. The first lesson of the unit will function as our pre-learning assessment and as students develop social awareness and making skills, formative assessment will be used to help guide their learning, and summative assessment will be used to determine learning growth. The assessment structure will follow an observation, discussion, artefact model. For the discussion portion of the assessment, students will reflect on their learning and document the skills, knowledge, and perspective they have gained through the process. Students will document the tools they used, the key learning points, and questions they have. Each lesson is focused on a making task so the product of this task will be used as the evidence for the assessment. Finally, a rubric containing curricular	to reflect the EDIDA framework throughout by using explicit accommodations for equity and inclusion for people of all abilities. Lesson activities are designed using universal supports to facilitate an inclusive learning environment with a “low floor, high ceiling, no walls” approach and multiple options for engagement, representation, and expression of learning so that all students will participate regardless of physical and cognitive needs. An example of a universal support implemented into the unit is in the use of Padlet to capture student metacognition. Padlet, in combination with the use of iPads, allows students multiple means of access by affording them options such as voice to text, video, audio, image upload, and a canvas for drawing. These technologies allow for equitable and inclusive access for self reflection and assessment of learning. Our lessons are also directly correlated with the First People’s Principles of Learning (FNESC, 2018). Incorporating the design process for making is learning that actively “involves patience and time”. Our first lesson asks “Who am I?” reflecting that “learning requires exploration of one’s identity”. The second lesson, which asks “Who	capable of contributing to the best interests of all. **How it connects to STEAM, EDIDA, TPACK/SAMR:** Creating awareness of diversity is the first step in creating inclusive communities. This unit is intended to highlight the diversity that exists in communities that erode prejudice and colonial thinking about identity and ethnicity to foster acceptance. The technology used within the unit sits within the transformational end of the SAMR continuum. Technology in this unit is designed to get students thinking and acting in ways that empower action and advocacy through empowerment and engagement.

competencies will be used to act as teacher observation and function to provide student feedback.	lives in my community?", as well as the student reflection throughout the unit, reinforces learning that is "holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place)". The subsequent lessons, which ask "What issues are in my community?", "What supports are available in my community?", and "What can I do in my community?", as well as the Culminating Task, which requires students to address "What can I make to improve my community?", promote learning that "supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors" while affecting positive change for future generations.	

Instructional Strategies & Approaches:

Accommodations (For all students)	**Field Study/Trips, Experiential Learning outside the classroom**	**Inquiry Design-Based Thinking STEAM**	**Collaborative/ Instructional Strategies**

Universal Supports will involve multiple means of engagement, representation, and expression of learning through: - multiple means of access for learning materials. - group participation for social supports - voice to text/ text to speech technology implementation - maintaining of on open space for learning - Use of technologies that promote “low floor, high ceiling, no walls”. - No time constraints.	Experiential learning is facilitated to utilise the maker mentality and create meaningful learning experiences. In each lesson students develop their maker mentality through practising and reinforcing understanding of the design thinking cycle of emphathizing, defining, ideating, testing, making, and sharing. Through embracing the cyclical nature of design thinking, with multiple iterations of the cycle needed to create artifacts, students will learn to embrace failure as a positive means to improving their final learning artifact. Through the open-ended nature of many of the activities, students will have the opportunity to be creative and innovative with their artifacts. Students also have the opportunity to reflect on the core competencies in relation to how they worked with others (sharing, listening, dividing tasks), their creative and critical thinking process. This is documented in the student reflection section of the rubric.	Using student perspectives to form concepts of the community in which they live. These perspectives will lead them to meaningful, engaging, and autonomous inquiry questions about how to best affect change in their communities. Using the design thinking process students will develop a better understanding of their community including the strengths and stretches within it.	Collaborative drama activity Use of Padlet and MentiMeter for shared knowledge building and collaboration. Think, pair, share activities. Group work to provide social support and other collaborative making benefits.

Tech-Enabled Learning	Professional Resources	Subject Specific Concepts	Connection to Current Events & Issues	Parent Communication
Technology is utilised in this unit in multi-modal ways intended to deepen student learning by enriching learning content, engage interests, and facilitate efficacy for all students. Some high tech tool options for students in this unit include online posters, videos with AR, Padlet, Makey Makey, Micro:bit, Tinkercad, and Oculus VR. Low and no tech making will be incorporated through options to create low or no tech artifacts such as posters, mechanisms to work with Makey Makeys, and the option to use preferred materials for the culminating task.	This unit is designed to be applicable in many contexts. The pedagogical practices elicit 'making' behaviours from students and empower teachers to provide students with experience progressions to make real action for change.	The PHE curriculum is applied to this unit as a framework to enhance capacities for healthy choices, communities, and identities. The ADST curriculum is applied to this unit as a framework to support determining appropriate tools and audiences to support the design process for creation of artifacts.	Recognition of the constituent parts of the community within a student's current perspectives is a responsive approach that keeps the learning relevant and meaningful.	The summative assessment strategy applied to the unit consists of an ongoing assessment of the development of skills and competencies on the **rubric**. This assessment is intended to provide learning partners of growth, strengths, and stretches. Parent communication is implicitly implied in the assessment structure.

Lesson Sequence

Lesson #1: Joyce (no tech)	Lesson #2: Emily (low tech)	Lesson #3: Joe (low tech)
Title: Who am I? **Big Idea:** We are using frameworks of Equity, Diversity, Inclusion, Decolonization, Anti-racism (EDIDA) to help define and understand our identities as well as our own inherent biases, stereotypes, prejudices, and the inequities that we create for others through identifying who we are ourselves. We experience many changes in our lives that influence how we see ourselves and others. We are able to understand and create our own narratives through the making experience. We learn about the similarities and differences in individuals and groups that influence community health. **Lesson Sequence:** - Provocation activities to activate prior knowledge. - Create a mixed media Who Am I poster. - Connect and share with classmates their Who Am I poster. - Explore types of oppression and discrimination that are related to one's identity. Discuss intersectionality. - Learn to understand and accept others. **Assessment:**	**Title:** Who lives in my community? **Big Idea:** Recognize the diversity of people, experiences, and stories in the community. **Lesson Sequence:** - Discussion activity to activate prior knowledge - Hands on demo of makey makey - Provocation to explore storytelling through music - Provocation to explore storytelling through play - Maker challenge utilizing design planning process to explore diverse storytelling with chosen medium **Assessment:** Formative in person observation, **design planning sheet**, feedback, **rubric**, reflection **Padlet**	**Title:** What issues are in my community? **Big Idea:** Discuss, identify, and reflect upon the key issues within the community. **Lesson Sequence:** - Provocation activities to activate prior knowledge. - Create representative model of community. - Explore additional ideas through playing a game (Jenga). - Watch a video of an Indigenous Elder sharing about their community. - Group share and reflection on key issues within other communities and in own community. **Assessment:** Formative: In person observation, feedback, **rubric**, reflection **Padlet**

Formative: In person observation, feedback, rubric, reflection Padlet		
Lesson #4: Paul (high tech)	**Lesson #5: Ryan (high tech)**	**Lesson #6:**
Title: What support is available in my community? **Big Idea:** Identify support for needs in the community. Identify barriers to the access of support in my community. Demonstrate an awareness of contributing factors foe support inequities. **Lesson Sequence:** - Provocation activities to activate prior knowledge. - Ideate supports and broaden perspective. - Create locating devices using Micro Bits. - Participate in locating supports scavenger hunt. - Relate technology to real world functions and uses. - Explore barriers to access of these technologies and the risks this creates. - Ideate solutions to make access to these technologies more equitable. **Assessment:** Formative: In person observation, feedback,	**Title:** What could I do in my community? **Big Idea:** Design can be responsive to identified needs. (ADST 6) **Lesson Sequence:** - Provocation 1 Drama activity - Provocation 2 Superhero Drama activity - Lesson 1-4 recap and brainstorm of gaps in needs - Whiteboard rapid design ideation - Maker Challenge - What can you do to make your community better? - Group share - Idea consolidation for culminating task. **Assessment:** Formative in person observation, design planning sheet, feedback, rubric, reflection Padlet	**Title:** Culminating Task: **What can I make to improve my community?** **Big Idea:** All from #1-5 Task: Apply the design process on your worksheet to identify/define and solve a problem in your community. You may redesign or reinvent an existing creation, tool, product, or idea. You can use any technology in the makerspace. **Assessment:** Formative: In person observation, feedback Summative: rubric

rubric, self-reflection **Padlet**		

References

All learning outcomes and competencies have been connected to/derived from:

BC Ministry of Education. (2022). *BC's curriculum*. British Columbia BC's Curriculum. https://curriculum.gov.bc.ca/

FNESC. (2018). *First People's principles of learning*. http://www.fnesc.ca/wp/wp-content/uploads/2020/09/FNESC-Learning-First-Peoples-poster-11x17-hi-res-v2.pdf