

**CODE/MOE/UOIT Makerspaces Project--Lesson Planning Template**

**School Board: Rainy River District School Board**

**Grade(s): 4**

**Subject(s): Music & Visual Arts**

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| **BIG IDEAS:**  **Basic coding involves all the skills of problem solving: reasoning, communicating, reflecting and metacognition**  • developing aesthetic awareness • using the creative process • taking an innovative approach to a challenge • manipulating elements and forms to convey or express thoughts, feelings, messages, or ideas through the arts • using the critical analysis process • constructing and analysing art works, with a focus on analysing and communicating the meaning of the work • using new media and technology  **Curriculum Expectations:**  **OVERALL:** C1. Creating and Performing: apply the creative process to create and perform music for a variety of purposes, using the elements and techniques of music;  D1. Creating and Presenting: apply the creative process to produce a variety of two- and three-dimensional art works, using elements, principles, and techniques of visual arts to communicate feelings, ideas, and understandings;  **SPECIFIC:** D1.1 create two- and three-dimensional works of art that express feelings and ideas inspired by their interests and experiences;  C1.3 create musical compositions for specific purposes and audiences (e.g., write a composition for recorder using musical notation on the five-line staff; compose a piece using non-traditional notation, such as a melody map or icons; compose a soundscape to represent the physical landscape of Canada; create a composition to accompany a dance piece) Teacher prompt: “Using your voice or an instrument, create a melodic contour that represents the contour of the boundary between Canada and the United States. How could you use your voice or an instrument to re-create this contour line?” | |
| **Learning Goals:**  “We are learning to…”  -create circuits with the Makey Makey and various fruits, vegetables and other conductive materials. -Perform musical compositions using the Makey Makey piano. | **Success Criteria:**  “We will be successful when…”  -We can play musical notes using the Makey Makey. |
| **Lesson Overview:**  -Students worked in small groups to setup the Makey Makey to various conductors. Using their Chromebooks and the Makey Makey piano students performed music creations. | |
| **Materials and Technology:**  -Makey Makey kits  -Chromebooks  -Various materials for students to test conductivity | |
| **Student Accommodations/Modifications:**  -Students were strategically placed into groups where they could be successful. | **Lesson will be differentiated by:**   * **Content, specifically:** * **Process, specifically:** * **Product, specifically:** * **Environment, specifically:** |
| **MINDS ON: Getting Started** | |
| During this phase, the teacher may:  • activate students’ prior knowledge;  • engage students by posing thought-provoking questions;  • gather diagnostic and/or formative assessment data through observation and questioning;  • discuss and clarify the task(s). | During this phase, students may:  • participate in discussions;  • propose strategies;  • question the teacher and their classmates;  • make connections to and reflect on prior learning. |
| **Describe how you will introduce the learning activity to your students.**  -Prior to using the Makey Makey we did a lesson on open and closed circuits which involved YouTube videos and demonstration.  **What key questions will you ask?**  -Why is your Makey Makey not working?  -What makes your circuit complete?  -How can you fix your Makey Makey to make it work?  -How can this technology be used in other ways?  **How will you gather diagnostic or formative data about the students’ current levels of understanding?**  -Observations, discussions, checklists.  **How will students be grouped? How will materials be distributed?**  **-**Students will be grouped in pairs or groups of 3. Each group will have a Makey Makey and Chromebook and various conductive and non-conductive materials. | |
| **ACTION: Working on it** | |
| During this phase, the teacher may:  • ask probing questions;  • clarify misconceptions, as needed, by redirecting students through questioning;  • answer students’ questions (but avoid providing a solution to the problem);  • observe and assess;  • encourage students to represent their thinking concretely and/or pictorially;  • encourage students to clarify ideas and to pose questions to other students. | During this phase, students may:  • represent their thinking (using numbers, pictures, words, manipulatives, actions, etc.);  • participate actively in whole group, small group, or independent settings;  • explain their thinking to the teacher and their classmates;  • explore and develop strategies and concepts. |
| **Describe the task(s) in which your students will be engaged.**  Students will be engaged through the hands-on use of the Makey Makey and materials.  **What misconceptions or difficulties do you think they might experience?**  -Some circuits may not work because the material is not conductive, missing the ground wire, not holding the ground wire, or the circuit may not be complete.  **How will they demonstrate their understanding of the concept?**  -Students will be able to play music on the Chromebook via the Makey Makey.  **How will you gather your assessment data (e.g., checklist, anecdotal records)?**  Observations, discussions, checklists.  **What extension activities will you provide?**  -Students can explore other activities on the Makey Makey website, YouTube and using Scratch. | |
| **CONSOLIDATION: Reflecting and Connecting** | |
| During this phase, the teacher may:  • bring students back together to share and analyse strategies;  • encourage students to explain a variety of learning strategies;  • ask students to defend their procedures and justify their answers;  • clarify misunderstandings;  • relate strategies and solutions to similar types of problems in order to help students generalize concepts;  • summarize the discussion and emphasize key points or concepts. | During this phase, students may:  • share their findings;  • use a variety of concrete, pictorial, and numerical representations to demonstrate their understandings;  • justify and explain their thinking;  • reflect on their learning. |
| **How will you select the individual students or groups of students who are to share their work with the class (i.e., to demonstrate a variety of strategies, to show different types of representations, to illustrate a key concept)?**  -Students that volunteer to share their work will have the opportunity.  **What key questions will you ask during the debriefing?**  -What difficulties did you have?  -What did you learn?  -What other ways can you use circuits? | |