

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

**School Board: Grand Erie District School Board**

**Grade(s): Kindergarten**

**Subject(s): MakeDo Kits**

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| **BIG IDEAS:**  **Students can develop and use fine motor skills while they explore building shapes.**  **Curriculum Expectations:**  ***\*There are many expectations that can be used here. It all depends on your focus. Most of the expectations could be listed.***  **OVERALL:**  **2. demonstrate independence, self-regulation, and a willingness to take responsibility in learning and other endeavours**  **4. demonstrate an ability to use problem-solving skills in a variety of contexts, including social contexts**  **13. use the processes and skills of an inquiry stance (i.e., questioning, planning, predicting, observing, and communicating)**  **SPECIFIC:**   |  | | --- | | 2.1 demonstrate self-reliance and a sense of responsibility | | 2.2 demonstrate a willingness to try new experiences | | 2.3 demonstrate self-motivation, initiative, and confidence in their approach to learning by selecting and completing learning tasks |   4.1 use a variety of strategies to solve problems, including problems arising in social situations   |  | | --- | | 13.1 state problems and pose questions in different contexts and for different reasons | | 13.2 make predictions and observations before and during investigations | | 13.3 select and use materials to carry out their own explorations | | 13.4 communicate results and findings from individual and group investigations | | |
| **Learning Goals:**  “We are learning to…”  ...Use a type of screwdriver to screw things in  ...Use a type of cutting tool to cut with  ...Work with others to build  ...Create a design/ plan and follow through | **Success Criteria:**  “We will be successful when…  ...We have created a plan and used it to build something ie: 3D shape or building |
| **Lesson Overview:**  **Students will be introduced to 3D shapes. Discussions on what the sides all look like.**  **Students will be introduced to the MakeDo kit and all the parts. Allow the students to explore the tools for a few days. Then challenge them to create a plan to cut a 2D shape first. Work towards making a 3D shape. Then challenge them to create a structure or building.** | |
| **Materials and Technology:**   * Cardboard, fabric * Makedo kit * 2D shapes * 3D shapes * Paper * <https://www.youtube.com/watch?v=uwUZf22AvcE> * <https://www.youtube.com/watch?v=pwerLncVRTk> | |
| **Student Accommodations/Modifications:**  **-1:1 support**  **-Extra time for those that need it**  **-Cue cards showing directionality for those that need it** | **Lesson will be differentiated by:**  **Content, specifically:**  **Process, specifically:**  **- allow time for practice/review/repetition - rewording/rephrasing of instructions**  **Product, specifically:**  **Environment, specifically:**  **If students need, quieter work area will be provided.** |
| **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.**   1. **Introduce 3D shapes. Spend a few weeks exploring them.** 2. **Introduce the MakeDo kit. Watch videos. Allow them to explore for a few days.** 3. **Challenge them to make a 3D shape using the MakeDo kit.** 4. **Challenge them draw a picture of a structure or building. Can you make this with the MakeDo kit?**   **What key questions will you ask?**  **-What can you build?**  **How will you gather diagnostic or formative data about the students’ current levels of understanding?**  **-Can they describe what they have make?**  **-Does their drawing and structure match- if not what changes did they make, why?**  **How will students be grouped? How will materials be distributed?**  **-Allow students to decide, open centre** | |
| **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.**  **-Building with the MakeDo kits**  **What misconceptions or difficulties do you think they might experience?**  **-N/A**  **How will they demonstrate their understanding of the concept?**  **-Being able to describe what they have made**  **How will you gather your assessment data (e.g., checklist, anecdotal records)?**  **-Checklist and anecdotal notes**  **-Pictures and videos**  **What extension activities will you provide?**  **-What else can you build? What can you build with others?** | |
| **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)?**  **-Self-selected**  **What key questions will you ask during the debriefing?**  **-What did you make?**  **-What shapes did you use?**  **-Did your plan work?**  **-What changes did you make?**  **-Was it easy for you?**  **-What will you do differently next time?** | |