

**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:**

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| 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

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| 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 |

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| **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>
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| **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?** |