**Teacher Candidate:** Mike Friesen **SA:** VIC MENICUCCI **FA:** ROB WILLIAMSON

**UNIT:** Woodworking/Metal **GRADE:** 8/9/10/11/12 **DATE:**

**TOPIC:** How to Read Measurements **LESSON:** 2 of 16 **BLOCK/TIME:**

**BIG IDEAS**

* Complex tasks require the acquisition of additional skills.
* Complex tasks may require multiple tools and technologies.

**Prior knowledge:**

As grade 8’s, I will assume no knowledge will be had.

* Ask class “Who knows how to read a tape measure” and if so “Who knows how to read imperial and/or metric”?

**Course Content:**

* Identify measurements as fine as 1/64th inch and 1 millimeter
* Able to convert fractions into lowest forms
* Express importance of Symbols (“ ‘ and mm)
* Show elements of plans and drawings.

**Objectives: SWBAT**

* Identify specific measurements on handouts
* Use a tape measure, scale and/or rule to measure required test materials and future projects

**Motivator:**

Once students have completed the lesson and worksheets, individual project design will follow.

**Supporting Material:**

Lecture notes from board and work sheets.

**Equipment:**

|  |  |
| --- | --- |
| **List of materials needed:** | **List of equipment** |
| * Pencils * Handouts * Material to measure | * White board w/ markers * Projector * Document camera * Class set of tape measures, rules (both metric and imperial) |

**Preparation:**

|  |
| --- |
| Day before lab:   * Print handouts * Collect measurement tools and material for lab and lecture   Few minutes before class:   * Write lesson on board * Turn on projector and document camera * Place handouts, material and measurement tools in front of class |

**In class content:**

|  |  |  |
| --- | --- | --- |
| **Time** | **Lesson Procedure** | **Commentary, questions, notes** |
| 2 mins  5 mins  20 mins  5 mins  5 mins  10 mins  10 mins  10 mins  10 min  2mins  3 mins | Attendance  Go over schedule   * Start lecture: * Determine prior knowledge * The “History” of measurement * Who knows the 2 units of linear measurement?   - Hand out worksheets and measurement tools.   * Describe the difference between tape measures, rules, and rulers.   - Demonstrate examples of imperial measurements from the worksheets on the document camera.  (Check for questions and understanding)  - Work period – Imperial worksheet    -Finish PowerPoint on Metric  - Demonstrate examples of metric measurements from the worksheets on the document camera.  (Check for questions and understanding)  - Work period – Metric work sheet  Clean up  Closure   * Exit questions   (Why does the end of the tape measure move? What makes the steel rule different ruler?)   * Any final questions from class * Instruct class to finish worksheets for homework and bring in next day for class marking. | - Use white board list  - Give students my story of how one king created the imperial system to divide land for peasants   * - Ask students to participate and handle tools. * - Walk around class and assist students needing help * - Walk around class and assist students needing help |

**Vocabulary:** Tape measure,Rule, Ruler, Imperial, Metric, Inch, Millimeter, Foot and Centimeter

**Evaluation:** Exit slips and worksheets

**NOTES:**