

## Unit 3, Topic 3 – Development of the Design Brief

1. Based on your findings in Topic 2 (Problem Situation), develop a “Design Brief” with the following subheadings:

- **DESCRIPTION** – Write a paragraph (4 to 5 sentences) that describes the main problems your team found. Try to find a common issue among all the problems for the last sentence. Perhaps, when you look at your list of problems altogether, you see that you have issues with space, or building materials or layout or cost or aesthetics. [5 marks]
- **STATEMENT** – Write your goal in ONE(1) sentence. What is it that you plan to do and why? Here is an example: *“Given the bland (boring) nature of modern houses, our team intends to revitalize Newfoundland residential aesthetics by using decorative features that will be demonstrated in a miniature two-story cottage.”* [5 marks]
- **CRITERIA** – List the conditions and limitations of your build in a 2X2 table. Who are you working with? Where will you be building? What materials are you going to use? Do you have all the necessary skills? Is there anything that will slow you down or make your final prototype less than it can (and should) be? [5 marks]

Here is an example of a 2x2 Criteria Table (using the topic of “Changing Oil”)

| CONDITIONS                           | LIMITATIONS   |
|--------------------------------------|---|
| <b>1. Oil filter wrench</b>          | - There are 3 types of oil wrenches: a plastic cap; a strap; metal grippers. The plastic cap can be easily broken and is not sturdy. The strap can slip. The grippers can puncture. |
| <b>2. Oil filter</b>                 | - There are many sizes of filters. Getting the right one is critical.   |
| <b>3. Container to catch old oil</b> | - Recycling the oil from the last oil change must be completed in order to catch this current oil   |
| <b>4. Rags</b>                       | - There are none in the shop, so some paper towels or rags need to be purchased   |

- **EXPECTATIONS** – Create a checklist for the final step of the Design Process. When you show your final model or prototype to the class, how do you know you have reached your goal? For example, my expectations for the family car are: [5 marks]
  - Must go at 100km/hr
  - Must seat 4 people
  - Must have interior heat (for the winter)
  - Must have air conditioning (for the summer)

- Must be able to go in reverse
- Must not cost too much in maintenance
- Must have brakes
- Must have some storage space (for groceries or luggage or kayak gear)

2. These FOUR(4) headings (DESCRIPTION, STATEMENT, CRITERIA and EXPECTATIONS) should go on separate slides in your Google Classroom Presentation.

3. Add to your Daily Log in the last 7-10 minutes of every class. What did you do today?

**TOTAL: 20 MARKS**