**Math *in* Technology**

This is not an assignment on how to use technology to teach math!

The Oxford dictionary define technology as follows:

1. the application of scientific knowledge for practical purposes, esp. in industry :
2. machinery and equipment developed from such scientific knowledge.
3. the branch of knowledge dealing with engineering or applied sciences.

Technology has always played a significant role in the lives of students. These days we tend to consider electronics when we think of technology. However, as stated in definition *#2* above, any machine or equipment developed from scientific knowledge is technology. This would include items such as automobiles, airplanes, hammers, ballpoint pens, Frisbees, etc.

Technology also considers the application of scientific knowledge (definition *#1* above). This could include things such as designing a doghouse, riding a bicycle, making ice-cream, etc.

For your project you are to choose a form of technology that students would likely encounter and be familiar with. You will then illustrate through writings, drawings, or other appropriate forms of communication, how this technology is dependent upon mathematical concepts and principles. The concepts and principles revealed in your illustration need to be relevant to the New Brunswick math curriculum. You will need to show in your illustration or as an attachment to it the general or specific curricular outcomes (at least 3 outcomes) demonstrated. You will also need to produce a form of this illustration at a target-grade-specific level of communication. If necessary you may choose more than one technology to explore.

In brief summary:

* pick a relevant technology(ies)
* illustrate mathematical concepts and principles necessary for chosen technology(ies)
* connect concepts and principles to general or specific curricular outcomes (minimum of 3)
* produce a grade-specific student-friendly version of your technology

Please refer to the attached rubric as a guide to specific elements required for this assignment. Please note also that I am giving you a chance to self-evaluate an aspect of your product that you may find unique to your ideas (2 marks). Please describe your evaluation criteria in the space provided.

**Rubric for the “Math *in* Technology” Assignment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | **0** | **1** | **2** | **3** | **Total** |
| Number of outcomes illustrated | | none | Only one. | Two | Three or more. |  |
| Connection to GCO’s / SCO’s | | No clear connection to any mathematics. | Attempts to connect illustration to outcomes but no achieved | Good connection to GCO or SCO with some of the outcomes. | Good connection to GCO or SCO with all of the outcomes. |  |
| Quality of mathematical connection | | Does not illustrate the mathematical concept desired. | Illustrates the math concept poorly and/or inaccurately. | Some examples illustrate a desired mathematical concept well. | All examples illustrate desired mathematical concept well. |  |
| Relevance of math concepts and/or principles to the technology | | Math concept or principle not relevant to the technology illustrated. | Math concept or principle somewhat relevant but superimposed upon the technology and not essential to the technology. | Somewhere between previous and next. | Math concept or principle relevant and essential to the technology. |  |
| Student accessibility of technology illustration(s) | Familiarity for students | Technology beyond the expected comprehension of target grade. |  | Technology within the expected comprehension of target grade. |  |  |
| Student communication level | Illustration too difficult or confusing for target grade. | Illustration at grade level but lacking rigor for best connection to outcomes | Somewhat between previous and next. | Illustration at grade level and rigorously connected to outcomes. |  |
| Your own evaluation of your assignment | |  |  | <please describe> |  |  |
|  | |  |  |  |  | /19 |