

# Playground Project Component 2

Excellent news.... !!! Recently School District 73's board of directors announced that they received a small surplus of extra revenue from the Ministry of Education that must be used on the building of a physical entertainment space for students at any local school to use for their enjoyment. You have been chosen to create a project from scratch which Mr. Schmidt will be submitting on the school's behalf in order to secure funding for the construction of a new playground at Brock Middle School. The funding available, and the amount of money which will be granted for this project, will be based on guidelines set out in the following criteria sections below. In order to submit the project, all three sections / components of the criteria sections must be completed. If any of the sections / components are not completed, then no mark will be given and the submission will not be forwarded until such time as the submission requirements are completed.

## GROUPS:

You can create a group that consists of up to a maximum of three students that will work together and submit the completed project for consideration.

## PROJECT:

Your group will be creating a possible design / project for a playground that can be built on one of the playgrounds of the school which incorporates certain geometric shapes in order to bring a Mathematical appreciation to the submitted / completed project.

## CRITERIA:

There are three components / sections to the project and all sections must be done in order to have the project considered complete and ready for submission. Within each of these components / sections there is also different levels of design which will be used to determine the overall final mark that the project can receive, as well as the funding amount that the project would be available for.

- 1) " C " level projects consist of four objects used
- 2) " B " level projects consist of six objects used with some combinations
- 3) " A " level projects consist of eight objects ( one investigated on own ) used in combinations

## Component 2: ( Calculations for Model )

( individual calculations for each member of the group must be turned in for the members to receive credit )

- all surface area calculations must be made for each individual object on the model
- all surface area calculations must be made for each different coloured section of the objects on the model (if applicable)
- all cost data obtained must be supplied including applicable place of purchase
- all calculations for the cost of the materials used to make each part (object shape) of the playground must be made based on the cost data obtained through research
- all calculations for the cost of differently painted sections for the model must be made based on cost data obtained through research (if applicable)

( RUBRIC ON BACK SIDE )

CATEGORY	UNSATISFACTORY ( needs development ) ( 0 - 14 )	EMERGING ( novice ) ( 15 - 25 )	PROFICIENT ( competent ) ( 26 - 34 )	ADVANCED ( expert ) ( 35 - 40 )
Math Equations and Calculations	<p>-format / layout of solution incomplete / lacking, difficult to follow and does not support formulas and calculations obtained</p> <p>-equations are written with some or none of the correct symbols as they would appear in a math text book, and evidence of errors is obvious</p> <p>-no logical and systematic approach evident in the calculations / final solution obtained</p>	<p>-format / layout of solution incomplete, challenging to follow and does not fully supports formulas and calculations obtained</p> <p>-equations are written with most of the correct symbols as they would appear in a math text book, and have evident or obvious errors</p> <p>-average / simple logical and systematic approach evident in the calculations / final solution obtained</p>	<p>-format / layout of solution easy to follow and supports formulas and calculations obtained</p> <p>-equations are written with the correct symbols as they would appear in a math text book, and have few errors are evident</p> <p>-mostly logical and systematic approach evident in the calculations / final solution obtained</p>	<p>-format / layout of solution easy to follow and fully supports formulas and calculations obtained with no errors evident</p> <p>-equations are written with the correct symbols as they would appear in a math text book, and are completely free of error</p> <p>-logical and systematic approach evident in the calculations / final solution obtained</p>
Attention to Precision and Communication of Concepts	<p>-simplistic / minimal approach in the use of symbols, labelling and vocabulary to effectively communicate the multiple concepts in use</p>	<p>-good approach in the use of symbols, labelling and vocabulary to effectively communicate the multiple concepts in use</p>	<p>-very good approach to the use of symbols, labelling and vocabulary to effectively communicate the multiple concepts in use</p>	<p>-outstanding approach in the use of symbols, labelling and vocabulary to effectively communicate the multiple concepts in use</p>
Work Habits / Group Attitude	<p>-definite effort required in order to show respectfulness and openness to positive suggestions</p> <p>-minimally demonstrated collaboration of ideas and understanding during project / group work</p>	<p>-more effort required to demonstrate respectfulness and openness to positive suggestions</p> <p>-some demonstrated collaboration of ideas and understanding during project / group work</p>	<p>-generally respectful and open to positive suggestions</p> <p>-demonstrated good collaboration of ideas and understanding during project / group work</p>	<p>-respectful and open to positive suggestions</p> <p>-demonstrated outstanding collaboration of ideas and understanding during project / group work</p>
Total				