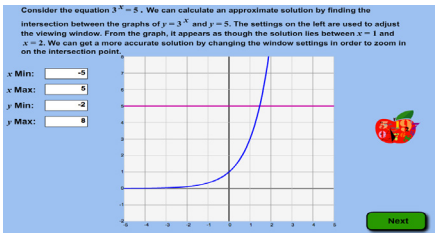
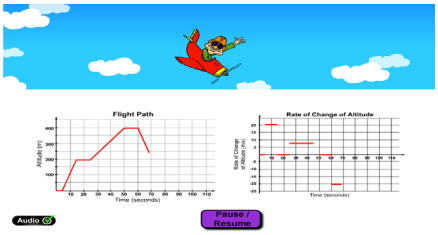
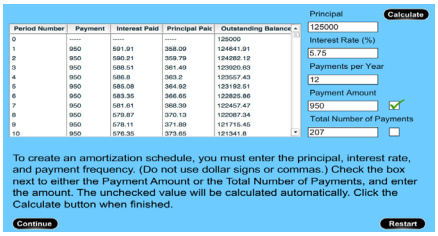
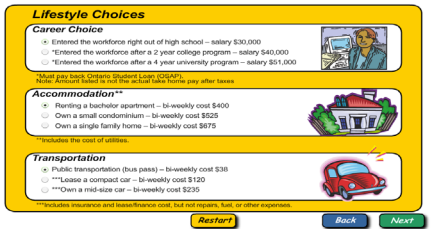
MAP4C
Ontario Educational Resources Bank (OERB) Activities

Mathematical Models

Activity	Description
Exponential Graphing Activity  **Resource ID: ELO1149650**	Build understanding of how to solve exponential equations by using a virtual graphing calculator to determine the point of intersection between an exponential graph and a constant.
Test Pilot  **Resource ID: ELO1149630**	Build understanding of rates of change by investigating simultaneously the graphs of height versus time and rate of change of height versus time, produced in a flight simulation. Practise applying this knowledge by answering multiple choice questions.

Personal Finance

Activity	Description
Amortization Scheduler  **Resource ID: ELO1149710**	Build understanding of amortization schedules by entering the particulars of a mortgage and then creating an amortization schedule. Practise applying this knowledge by answering questions related to the schedules created.
The Budget Game  **Resource ID: ELO1190150**	Build understanding of factors that affect a budget by simulating the implementation of a budget and then dealing with unplanned events in a challenge activity.

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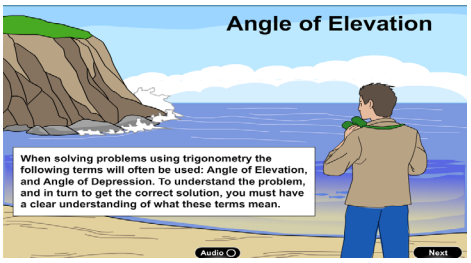
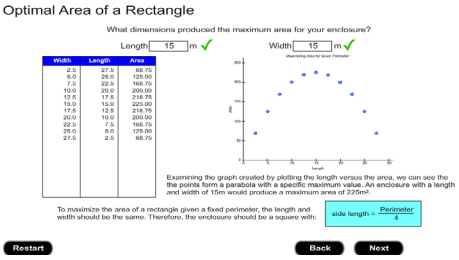
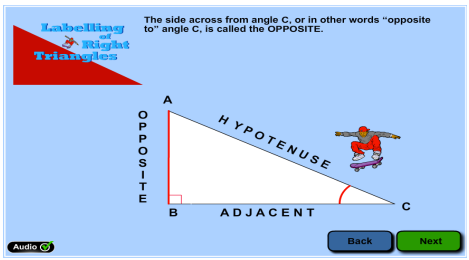
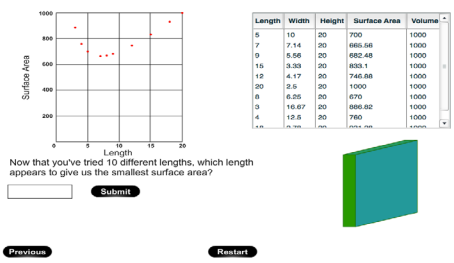
Geometry and Trigonometry	
Activity	**Description**
Angles of Elevation and Depression  **Resource ID: ELO1149670**	Build understanding of the terms “angle of elevation” and “angle of depression” by viewing an animated description of the two terms.
Introduction to Optimal Dimensions  **Resource ID: ELO1190160**	Build understanding of optimization by experimenting with a variety of length and width combinations for a fixed perimeter and investigating the areas that result. Practise applying this knowledge by completing a quiz.
Labelling of Right Triangles  **Resource ID: ELO1149660**	Build understanding of how to properly label the sides of a right triangle by viewing an illustrated tutorial.
Making the Most of It  **Resource ID: ELO1149690**	Build understanding of optimization by exploring the effects on surface area of varying the lengths and widths of rectangular and triangular prisms of fixed volume. Practise applying the knowledge gained by completing a multiple choice quiz.

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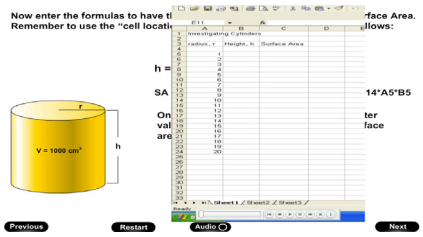
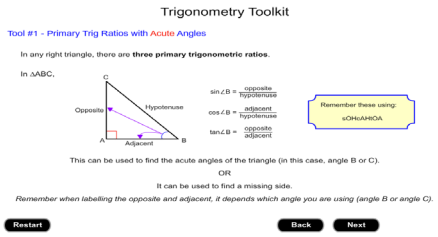
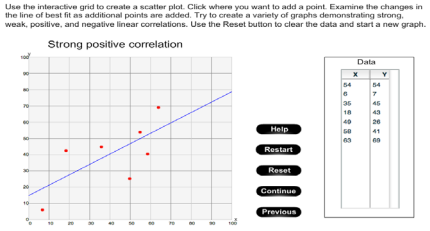
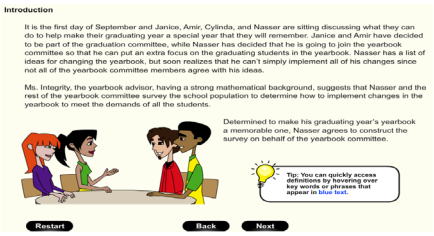
Geometry and Trigonometry (continued)	
Activity	**Description**
Minimizing Surface Area  **Resource ID: ELO1149700**	Build understanding of optimization by viewing an illustrated tutorial of how a spreadsheet can be used to determine the optimal dimensions to minimize the surface area of a cylinder with a fixed volume. Practise applying the knowledge gained by completing a multiple choice quiz.
Trigonometry Review  **Resource ID: ELO1149720**	Practise solving trigonometry problems by completing a quiz that involves selecting an appropriate diagram, selecting appropriate tools and calculating for the missing value in both right and non-right triangles.

Data Management	
Activity	**Description**
Analysing Data and Linear Regression  **Resource ID: ELO1190100**	Build understanding of lines of best fit by identifying trends in data presented graphically, categorizing scatter plots based on these trends, and exploring the effects of outliers on the line of best fit. Practise applying this knowledge by drawing lines of best fit.
How to Create a Survey  **Resource ID: ELO1190090**	Build understanding of how to create a survey by viewing an interactive tutorial that outlines the components of a good survey.

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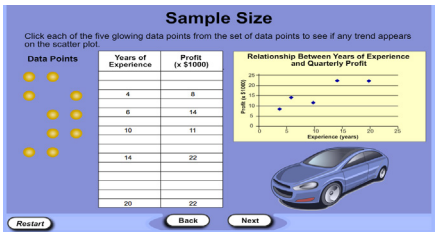
Data Management (continued)	
Activity	**Description**
Two Variable Data Analysis  **Resource ID: ELO1149730**	Build understanding of the factors that contribute to the reliability of conclusions drawn from two variable data by exploring the effects of outliers and insufficient data on the line of best fit.