Dragon’s Den in the Classroom

A multi-week project exploring data management and probability concepts

Junior
Data Management and Probability

Curriculum Goals

Grade 6
Overall expectations:
• read, describe, and interpret data;
• collect and organize discrete or continuous primary data and secondary data;
• display data using charts and graphs, including continuous line graphs;
• identify and explain relationships between sets of data

Specific expectations:
• collect data by conducting a survey (e.g., using an Internet survey tool) or an experiment to do with themselves, their environment, an issue in the school or community, or content from another subject, and record observations or measurements;
• select an appropriate type of graph to represent a set of data, graph the data using technology, and justify the choice of graph (i.e., pictographs, horizontal or vertical bar graphs, stem-and-leaf plots, double bar graphs, broken-line graphs, and continuous line graphs);
• read, interpret, and draw conclusions from primary data (e.g., survey results, measurements, observations) and from secondary data (e.g., sports data in the newspaper, data from the Internet about movies), presented in charts, tables, and graphs (including continuous line graphs);
• demonstrate, through investigation, an understanding of how data from charts, tables, and graphs can be used to make inferences and convincing arguments (e.g., describe examples found in newspapers and magazines).

Context

In this Dragons’ Den-inspired project, students use data evidence to convince a panel of judges that their product will sell. Students will learn about collecting and analyzing data, creating surveys, graphing data, and understanding mean, median and mode.

Materials

• Project Overview (found at the end of this lesson plan)
• Access to laptops (not necessary)
• Data software (i.e. Microsoft Excel), Survey software (SurveyMonkey, Microsoft online – Forms, etc.)
• Data sets to examine (can be generated by the students)
• Pencils
Lesson Introduction

If students are unfamiliar with the TV show *Dragons’ Den* or *Shark Tank*, introduce the idea by watching a quick clip as a class. This episode features two young girls around the age of Grade 6 students [http://www.cbc.ca/dragonsden/pitches/carly-and-charleys-odd-sox-project](http://www.cbc.ca/dragonsden/pitches/carly-and-charleys-odd-sox-project)

Use the *Dragons’ Den* Project Outline provided on the following pages as a guide to clearly lay out a timeline and steps that work for your class. Make sure the students understand the length and depth of this project and that you will be working together to learn more about how to use data to develop their projects.

*Introducing the Project:*

“Welcome to the (School Name) *Dragons’ Den*, where you will become a young entrepreneur, creating, researching, and pitching your ideas to the panel of Dragons! Working on your own or in groups of two, you will create your own product or business idea, OR you may expand upon an existing product or business. You will then collect data to determine what will make your product sell! You will use this evidence to create a full business proposal, including data and graphs, which you will pitch to the panel of Dragons in an attempt to “gain funding for your idea”. This is a large project that will develop over many weeks. We will continue to work on it in small steps as we learn more about data management!”
Overview

Welcome to the Dragons’ Den, where you will become a young entrepreneur, creating, researching, and pitching your ideas to the panel of Dragons! Working on your own or in groups of 2, you will create your own product or business idea, OR you may expand upon an existing product or business. You will then collect data to determine what will make your product sell! You will use this evidence to create a full business proposal, including data and graphs, which you will pitch to the panel of Dragons in an attempt to ‘gain funding for your idea’. This is a LARGE project that will develop over many weeks. We will continue to work on it in small steps as we learn more about Data Management!

Step 1: Come Up With An Idea!

- Come up with an idea for a new product or service, or expand upon an existing one
- This MIGHT include things such as: clothing, electronics, automobiles, apps, accessories, cosmetics, ideas for a business, OR ANY other new ideas you have!

[STOP: CHECK-POINT]

- Receive feedback from the teacher on your idea before you continue!
Step 2: The Data

In order to create a product that will SELL, you need to know what your target market wants! In this stage, you will need to create and administer a survey to collect data and determine how best to develop and market your product to make sure it sells.

- Create a survey as a method for data collection. The questions in your survey MUST help you answer the following questions about your product or service (You will need to answer these in your pitch):
  - What is the name of your product or service?
  - What are the attributes of your product (size, shape, colour, etc.)?
  - What is the purpose or function of your product or service?
  - What is UNIQUE about your product or service (your selling point)?
  - Who is your target market (who are you selling this product or service to)?
  - Who is your competition (You may need to RESEARCH this)?
  - What is the price of your product or service (What are people willing to pay and what does the competition sell their product for)?
  - What is different about your product or service from the competitors?
  - What is the best way to advertise your product or service so your target market sees it advertised (flyers, online, commercials, etc.)?
  - How will you brand your product or service? (Logo design, tag line)

*** ALL OF THESE ANSWERS NEED TO BE BASED ON THE DATA YOU ***

*** COLLECT IN YOUR SURVEY ***
STOP: CHECK-POINT

Receive feedback from the teacher on your survey before you continue!

Collect your evidence!
- Administer your surveys, and collect your data needed to make your product sell!

Analyze the data
- Using the data you have collected, make interpretations AND create graphs that you can use to show the Dragons why your product will sell!
- Fill out the online FORM to answer the necessary questions about your product!

STOP: CHECK-POINT

Receive feedback from the teacher on your analysis before you continue!

Step 3: Practice Pitch

Create a 5 - 10 minute presentation to pitch your product or service to the Dragons. This pitch MUST include:
- The name of your product
- A description of your product and its purpose
- The logo design and tagline for your product
- A visual of your product (drawing, model, etc.)
- An example of an advertisement for your product (flyer/poster, commercial, billboard, article, online ad, etc.)
- Examples of competitors for your product (what other products are there like yours and how do they compare?)
- The cost:
  - How much will is cost to PRODUCE your product?
  - How much will you SELL it for?
- DATA AND GRAPHS!
  - Include as much evidence as possible to show that your product will sell! (E.g. Data showing why your ad is appealing, why your price is ideal, etc.)
- Practice your pitch in a formal presentation for your teacher!
STOP: CHECK-POINT

- You will receive feedback from the teacher on your pitch to make changes before the Final Pitch Day

Step 4: The (School Name) Dragons’ Den

The Final Pitch

- In a **FORMAL** presentation, **pitch your product or service to the official panel of Dragons!** (Dragons TBD)