



STAGE 3

MARKET RESEARCH AND BUSINESS PLAN

Students will gather and analyze data about customers' pizza preferences. They will learn how to market their product and create promotional materials, and responsible packaging.

Lesson 1 • Conducting Surveys

Overview

Data gathering in this lesson may be completed digitally or manually, depending on classroom preference and technology access. While a paper survey template is provided, teachers may also choose to use digital tools such as Google Forms or Microsoft Forms to support survey creation, sharing, and data collection.

Learning Goals

Students will:

- Explain the purpose of surveys in market research
 - Discuss questions to include in a survey and the target audience
 - Collaborate with our business group to create questions, create a survey, and conduct a survey
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Materials Needed

- [Stage 3 Lesson 1 Teaching Slides](#)
 - [Student Resource Packet](#) (all lessons, printable)
 - [STEMterprise Deliverables Tracker](#)
 - [Pizza survey template](#) OR [Google Form sample](#) OR [Microsoft Forms sample](#)
 - [Data Collection questions](#)
 - Canada's Favourite Pizza Toppings [Image Source](#)
 - [Pizza Brands Infographic Source](#)
 - Infographic samples - [Perfect Pizza](#), [Pizza Toppings](#)
 - Pizza data samples - [Pizza Chains](#)
 - AgScape [Data Processing Technician](#)
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Teachers Notes

Gathering data in this lesson can be done digitally or manually. By grade 5, students have lots of experience with paper-pencil data collection and it can be a good time for students to develop their skills with digital survey tools. For teachers who prefer to gather data on paper, a [pizza survey template](#) is provided. Leveraging technology for market research can allow for quick and easy survey creation that can be shared widely using [Google Forms](#) or [Microsoft Forms](#).

Depending on your board, a firewall may prevent students from sharing the survey outside your domain, limiting the target audience your survey can reach. Teachers could send out digital surveys on behalf of the students.



Idea! Do you have a special event planned at school? A talent show, open house, carnival? These are fantastic opportunities to gather data from your school community. Just put up chart paper in the hallway with the pizza preference questions and answer choices and let families and students have their say.

Digital Survey Options:

Google Forms:

- Here is a [sample Google Form](#). Rather than starting from scratch, [this link](#) can be shared with students if it is a preferred starting point. A copy can be made and the form customized by clicking “Use Template” in the top right hand corner.
- Survey responses can be viewed from the Responses tab on the form or a Google Sheet can be created by clicking “Link to Sheets. In sheets, a wider variety of data representations can be made by clicking Insert, Chart.

Microsoft Forms

- Here is a [Microsoft Forms Sample](#). Use [this link](#) for your students to access and modify the sample survey.
- Data can be analyzed by clicking “View responses” in the right hand corner of the form.

Need to brush up on Google Forms? Check out this [link](#).

New to Microsoft Forms? Check out this [link](#).

Time Frame: 60 min

This is an ideal lesson to do during math periods. An optional Survey [Career Connections Slides](#) is on the last slide.

Career Connection

There is an optional Career Connection at the end of this and all lesson slides See the [Career Connections Slides](#). Career: Data Processing Technician.

Curriculum Expectations

Mathematics - Strand D Data

D1.1 explain importance of sampling techniques

D1.2 collect data using sampling techniques

D1.3 select from among a variety of graphs the type of graph best suited to sets of data

D1.4 create an infographic

D1.6 analyse different sets of data

Science and Technology - Strand A STEM Skills and Connections

A1.1 use scientific research process and skills to conduct investigations

A1.2 use scientific experimentation process and associated skills to conduct investigations

A1.5 communicate their findings, using science and technology vocabulary

Language - Strand B Foundations

B1.1 use effective listening skills

B1.2 select and use a variety of listening strategies

B1.3 identify purpose and audience in different contexts

B1.4 identify, use oral and non-verbal communication strategies

B1.5 able to create cohesive sentences for audience comprehension

Transferable Skills:

- Develop ideas
- Organize content
- Conduct Research

Agriculture/Agri-Food Themes:

- Determining interest in grain-based food and using that information to promote and highlight grains' benefits

STEMterprise References for Educators

STEMterprise Webpage: <https://goodineverygrain.ca/ontario-farming-stemterprise/>

Video Links

- [Ontario Farming STEMterprise: Grade 5 Pizza Shop Business](#)
- [Students: Are you ready for your own pizza business?](#)

STEMterprise Teacher Support Resources

- [Ontario Farming Grade 5 Educator Information Packet](#)
- [STEMterprise Grade 5 Assessment Planning](#)
- [Project Overview](#)
- [Combined Grade Activities](#)
- [Career Connections Slides](#)
- [Coding Connections Slides](#)
- [Good in Every Classroom Education Blog](#)
- [Good in Every Classroom Newsletter Sign-Up](#)

Stage 3 | Lesson 1: Conducting Surveys

Slide 6: Business Connection	This Business Connection slide is intended to get kids thinking about the learning ahead as it specifically relates to their pizza business. Encourage the students to make early connections about the learning goals and the connection to their business. These simple signposts give students a sense of where they are on their learning journey. You can note the number of stages and which lesson you're on in that particular stage.
Slide 7: Minds On!	Canada's Favourite Pizza Toppings Image Source As an option, there is an alternate data representation on the right hand side of the slide. Pizza Brands Infographic Source
Slide 8/9: Market Research & Data Collection	Teachers can review the vocabulary on this and the next slide. Have students discuss questions that should be asked. This Data Collection Question document can be used to help with this discussion and guide students to effective survey questions. Other examples of pizza related data might help students generate ideas. Infographic samples - Perfect Pizza, Pizza Toppings, Pizza data samples - Pizza Chains Sampling Techniques from the Ontario Curriculum • Simple random sampling is a method used to obtain a subset such that each subject in the population has an equal chance of being selected (e.g., randomly selecting 10% of the population using a random number generator). • Stratified random sampling involves partitioning the population into strata and then taking a random sample from each. For example, a school population could be divided into two strata: one with students who take a bus to school and the other with those who don't take a bus. Then a survey could be given to 10% of the population randomly selected from each of these strata. • Systematic random sampling is used when the subjects from a population are selected through a systematic approach that has been randomly determined. For example, a sample could be determined from an alphabetized list of names, using a starting name and count (e.g., every fourth name) that are randomly selected.

	Qualitative Data - Non-numerical data that can be organized by categories, such as type of pet, or eye colour. from the Ontario Curriculum Quantitative Data - Data that is numerical and acquired through counting (<i>see discrete data</i>) or measuring (<i>see continuous data</i>); for example, number of sides or amount of rainfall. from the Ontario Curriculum
Slide 10: Let's Create a Survey	Let's create a survey! 1. Choose the survey method that fits with your lesson goals and your board - digital or paper. ○ A Google Form sample ○ A Microsoft Form sample ○ A paper-pencil survey option has been created and the individual survey Pizza Survey Template (printable) is found at this link. It can also be accessed in the Student Resource Packet doc in the Stage 3 tab. The document is set up with multiple questions and choice tables but depending on your set up with students, you can use the first page, or all pages. 2. Discuss with the class that their team will be creating a survey. 3. Review the Criteria. ○ Questions should be clear and relevant. For this survey, students should ask closed multiple-choice questions. Have students offer a small range of options and ask participants to choose the option they would like most. ○ Students may like to extend their survey by asking a second question about the factors that would affect buying behaviour (e.g., price, fair trade, local produce, allergy). ○ Give students the opportunity to collect answers from as many people as possible (consider using students from a range of grades). If it's possible to extend the survey to families, this will expand the audience and provide additional information. 4. Once the survey is complete, determine who it will be sent to and how. 5. Send out surveys so students can have the data for the next lesson. If using Google or Microsoft Forms: Present the sample form and demonstrate how to build a survey in Google or Microsoft Forms, tailoring your instruction to the students' current technology proficiency. In the Teacher Notes, a version of this form can be given

	to your students to use. One device per group is needed. Part of the group can work on the questions, two other students can work together on creating the survey in Forms. Educator suggestions: Collate students survey links on a doc so they can potentially be shared by you beyond the classroom/school. Teachers can gather digital survey links on one Google Doc to make sharing the surveys easier. Next Lesson: Allow time for group members to give feedback on their findings and draw conclusions about the most popular ingredients from their target customers.
Slide 11: Wrap Up	If time allows, review another team's survey and give them feedback. Now is a great time to continue the THINGS TO CONSIDER chart for your class. Provide students with sticky notes, one per business group or pair. Have them add one thing they need to remember (in relation to this lesson) as they develop their pizza business. You might consider asking the class "What things will we need to consider when planning our pizza surveys?" before you write their sticky notes. What tips do you have for others about using Forms to create a survey. Have a few students share answers with the class.
Slide 12: What's Next?	The "What's Next?" slide is intended to be flexible and may be customized or filled in by teachers based on their classroom needs, pacing, and next steps.
Slide 14: Career Connection	Use this career connection for either lesson as it relates to both and go to the AgScape Data Processing Technician link for more info.