

A Note to Teachers



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](#).

NOTE: 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.
Time: approximately 60 minutes. This is an ideal lesson to do during math periods.

An optional Survey [Career Connections Slides](#) is on the [last slide](#).



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.

A Note to Teachers



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](#).*

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





Stage 3 Lesson 1: Conducting Surveys



Learning Goals



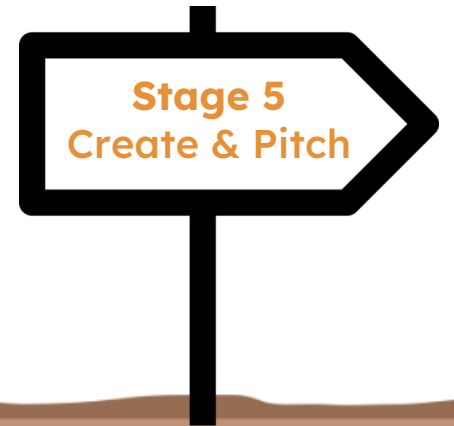
We can:

- 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.



Business Connection

How will this learning help our business?

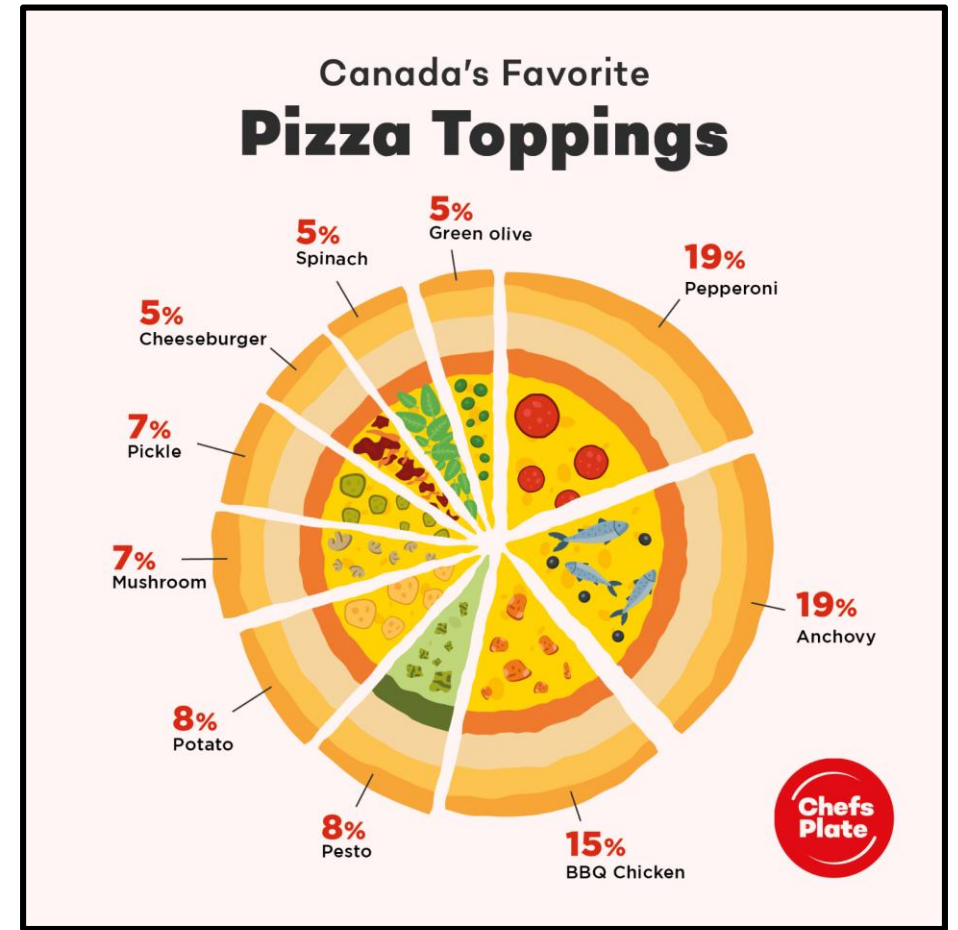


Minds ON!

Data can be represented in different ways.

What does this image tell us?

Would the results be different if our class was the target audience?



Market Research & Data Collection

Market research is used by businesses to help them find out what their customers need and like. **Data** is collected through surveys based on a question of interest. Data can be **qualitative** or **quantitative**.

What questions should be asked?

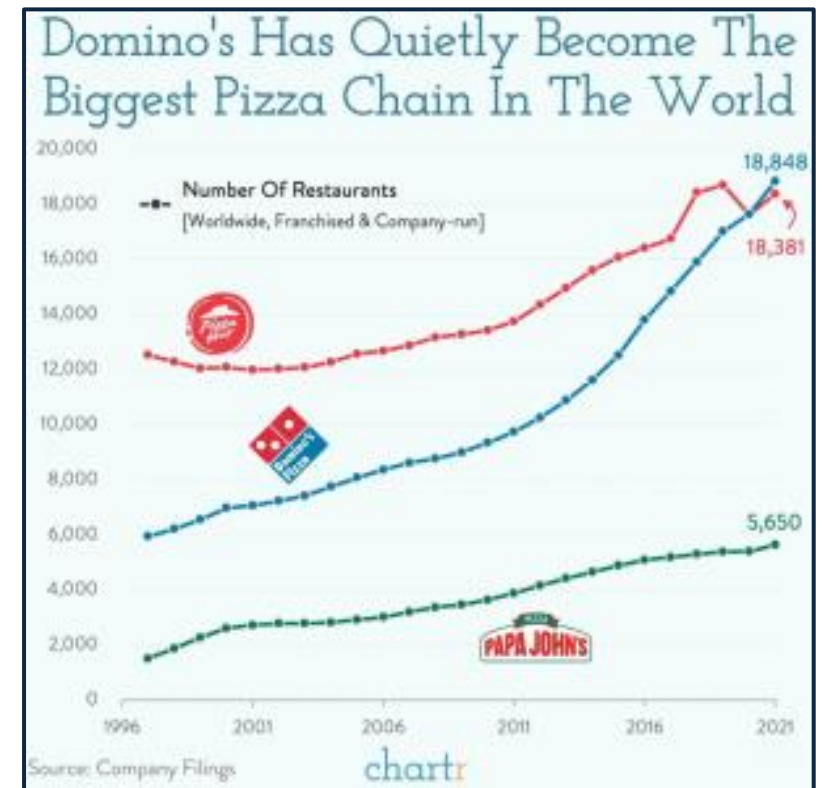


Survey questions need to be reliable.
Discuss the questions in [this document](#).
Are they reliable or unreliable?

Market Research & Data Collection

Random Sampling is a practical and efficient survey technique where every person in a target group has a chance of being selected. **Surveying** an entire population is called a census.

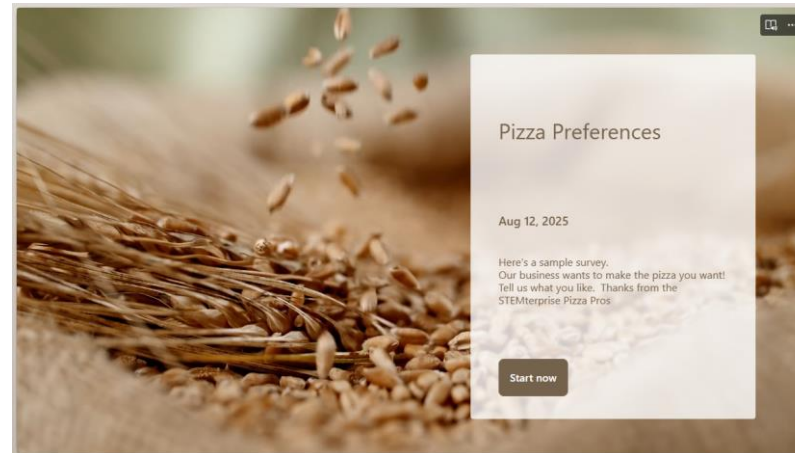
Charts and graphs help us analyze data from our survey sample so we can make decisions about our



Let's Create a Survey

Survey Criteria:

- Clear title and description
- 5 relevant questions or options
- multiple choice questions only for easy data analysis
- questions are clearly written for target audience to understand



Pizza Survey



Using Random Sampling

The method of your survey is a **random sample**. The number of people you will survey is your **sample population**. How many friends, family, or people in your school community do you plan to survey? _____
The **purpose** of your survey is the question you want answered. Write your question(s) below with the answer choice options in the boxes below. As you gather your data, use tally marks in the second row.

Question:

Option 1	Option 2	Option 3	Option 4	Option 5



STEMterprise Pizza Survey Example

Use this sample survey to gather data for your pizza business. When you're ready to get data, click Publish in the top right corner

* Indicates required question

Do you like pizza? *

- ☐ Yes
- ☐ No

What is your favourite meat topping? *

- ☐ Meat 1
- ☐ Meat 2
- ☐ Meat 3
- ☐ I don't care for meat on pizza

Wrap Up

Before sending out your survey, review it to be sure it meets the criteria and consider:

- Clear title and description
- 5 relevant questions/options
- multiple choice questions only for easy data analysis
- questions are clearly written for target audience to understand

- How many people do you think would be a good survey sample size to gather information for your business?
- When would you like the survey to be completed by?
- Would you get more survey participation if you offered a prize for completing the survey?



Check In – What's Next?





Career Connections



Surveys

What job needs these skills?

- ☐ Detail-oriented
- ☐ Independence
- ☐ Computer & Technological
- ☐ Multi-tasking

Check out this [data career](#).

