LESSON PLANS: ALBERTA

Grade 3: Statistics and Probability

🕐 **45-50 MINS**

powered by **Mathletics**

General Outcome:
• Collect, display and analyze data to solve problems.

Specific Outcomes:
• Collect first-hand data and organize it using:
- tally marks
- line plots
- charts
- lists

to answer questions.

Introduction to Lesson 🕐 10-15 MINS

Teacher Background:

This lesson will allow students to research, collect, record and share. Please have various resources for the students to explore along with their student Mathletics accounts.

If teachers have not introduced the term data, the concept can be reviewed within the Demonstrations tab from the Teacher Console.

Ask students:
• What are some ways we can display data?
• How can we collect the data?
• What are some types of graphs?

The graphs the students are going to research are tally marks, charts, lists, bar graphs, and line plots. Have the students fill out a KWL chart before they start.

📚 ITEMS NEEDED
✔ Interactive whiteboard
✔ Mathletics teacher login
✔ Mathletics student logins
✔ Classroom manipulatives
✔ Computers/tablets
✔ KWL chart handout
✔ Resources for students to explore
✔ Poster paper

📑 ASSESSMENTS
✔ Observation
✔ participation
✔ Group work
✔ Completion of the research project
✔ Reviewing the KWL chart
✔ Extra assessments are within the teacher eBooks "Chance and Data"pages 26–32.

⚙ ACCOMMODATIONS/ MODIFICATIONS
✔ Create heterogeneous grouping and assign students with certain roles.
✔ Provide students with certain resources to limit research.
✔ Provide visual models of the graphs and questions.

📜 EXTENSION OF LEARNING
✔ eBooks for grade 3 "Chance and Data" pages 10–21.
✔ Curriculum activities
✔ Explore Rainforest Maths,Grade 3: graphs)

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The Lesson

30-40 MINS

Research

- **Background for teacher—**The first part of the lesson will introduce the graphs/charts that students will research. In the second part of the lesson, students will collect and create a chart based on the charts they research.

- **Before starting the lesson:** Discuss ways students can display their research, such as posters, journals, pictures. For this project teachers can implement requirements for students: for example, they need to define all the charts, must have pictures, indicate what data is best represented in each chart. Students can work in pairs or groups.

  o For the research, students can explore within Mathletics Student Console. Encourage students to research in the Mathletics Student Console under **Concept Search** and **Animated Maths Dictionary**. Students can also access other resource in the classroom, such as the main math resource.

  o In the second part of the lesson, students collect data and represent that data in one of the charts they researched. They must create a question about Mathletics. For example What is your favorite parts of Mathletics? What is your favorite item to buy with credits? What countries have you played against in Live Mathletics? What Times Table Toons video do you like the most? What types of certificates have you earned?

  o Show and share after all charts and data are completed.

- **Reinforcement:** Student can work on curriculum activities within Mathletics. Suggest activities are Tally Charts, Column Graphs, Reading from a Column, Sorting Data, Making Graphs, Bar Graphs 1.

- **Extra-time activity/cross-curriculum activity:** Provide each group of students with a bag or M&M's or Skittles. Have the students sort and display their data in the graph they think would work best.

After the lesson

5 MINS

- Discuss with students: What are some interesting facts they learned during their research? Do they have similarities or differences? Students can finish KWL chart.