LESSON PLANS: ONTARIO
Grade 2: Data Management and Probability
Pictographs

🕐 **45-55 MINS**

powered by **Mathletics**

Overall Curriculum Expectations:

• Collect and organize categorical or discrete primary data and display the data, using tally charts, concrete graphs, pictographs, line plots, simple bar graphs, and other graphic organizers, with labels ordered appropriately along horizontal axes, as needed.

Specific Curriculum Expectations:

• Gather data to answer a question, using a simple survey with a limited number of responses.

• Collect and organize primary data that is categorical or discrete and display the data using one-to-one correspondence in concrete graphs, pictographs, etc.

Introduction to Lesson 🕐 10-15 MINS

Teacher Background:

On the whiteboard,write down the term increasing patterns and ask what they think this term might mean.

Ask students what they think a pictograph is:

- • Why would it be used?
- • What kind of information can it display?
- • On the interactive whiteboard, bring up Animated Math Dictionary by going to

    Teacher Console > Demonstrations > Concept Search > Animated Maths Dictionary.

    Search for pictograph and discuss the definition. If students have individual journals or dictionaries, have them enter the definition.

📚 ITEMS NEEDED

✔ Interactive whiteboard
✔ Mathletics teacher login
✔ Mathletics student login
✔ Manipulatives
✔ Student handout from eBooks pp. 14–16
✔ Math journals
✔ Computers/mobile devices

🔍 ASSESSMENTS

✔ Observation
✔ Participation
✔ Reviewing completed worksheets.
✔ Reporting results within the Teacher Console of Mathletics for curriculum.
✔ Graphs created by the students.
✔ Teacher assessments within the teacher eBook: Grade 1, Data and Chance, page 29

⚙ ACCOMMODATIONS/ MODIFICATIONS

✔ Create center groups according to heterogeneous grouping.
✔ Encourage students to click on "Something Easier" and "Something Harder" within the Mathletics curriculum activities
✔ Print off student worksheets from lower or higher grades.
✔ Provide various manipulatives.

📋 EXTENSION OF LEARNING

✔ Curriculum activities
✔ Extra worksheets from eBooks.
✔ "Rainforest Maths,"Grade 1—Data

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The Lesson
🕐 20-25 MINS

Centres

- **Background for teacher—**Teachers can add more centres to the ones indicated below: for example, the main resource used in the classroom. For the eBook centre, review the pages you would like the students to complete. Depending on how much work students can get done with each centre, rotation can occur about every 10 minutes. Groups will vary depending on class size.

  - o **Centre 1:** Computers/tablets—Have students complete curriculum activities within the student Mathletics site. Suggested activities under Data and Probability: Pictographs and Making Graphs.

  - o **Centre 2:** eBooks—Pages 14–16 in the Grade 1 Chance and Data student booklet. Student can work as partners or complete individually.

  - o **Centre 3:** Creating a Graph—Have the students formulate their own question and collect their data within the classroom. Students then can display the data with manipulatives provided by the teacher. This centre is for the construction of concrete graphs. If students need help with a model, have them click on **Concept Search** within their student console and search pictograph.

- **Extra-time activity/cross-curriculum activity:** Collect Mathletics certificate data—Have the students collect the Mathletics certificates they earned. Brainstorm as a class on best way to display this data in the classroom. Students can create their own pictures of the certificates they earned and place them on the classroom chart.

Consolidating the lesson
🕐 15 MINS

Think, Pair, Share

- Have the students share with a partner beside them what they learned today. Have them discuss key concepts, such as how they collect the data, what is a pictograph, how they created their graphs, did they find anything interesting in the data, and so forth.

- Teachers can also close the lesson with a one-page assessment. This is located in eBooks/Grade 1/Chance and Data/ page 29.

For more information contact our friendly team…
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