Grade 3
Student Resource Contents

Resource Title:
The title of the resource relates to an Overall Expectation of the Math Curriculum.

READ, DESCRIBE, AND INTERPRET DATA PRESENTED IN CHARTS AND GRAPHS INCLUDING VERTICAL AND HORIZONTAL BAR GRAPHS

Student Activities

Sort and classify objects by two or more attributes simultaneously
- Relate each sorting rule to its sorted group......................1
- Relate each sorted group to its sorting rule.......................2
- Relate each Venn diagram to its missing set....................3
- Relate each missing set to its Venn diagram...................4

Organize data in tables and graphs. Read and describe data in pictographs
- Connect each set of data to its representation in a different way..................5
- Connect each set of data to its representation in a different way..................6
- Read each pictograph and relate it to a description of its data 7
- Relate each statement to its corresponding pictograph ...8

Organize, read, and describe data presented in charts, graphs, and line plots, including the shape of data
- Connect the data in each tally chart to its representation on a horizontal bar graph...............9
- Connect each tally chart to its representation on a line plot......................10
- Connect each table to its representation on a line plot..11
- Read each tally chart and relate it to a description of its data 12

- Relate each statement to its corresponding tally chart... 13
- Read each graph and relate it to a description of its data 14
- Relate each statement to its corresponding graph..........15

Interpret data presented in charts, tables, and graphs. Describe the likelihood of events and predict the outcome of simple games
- Relate each graph to a conclusion supported by its data 16
- Relate each tally chart to a conclusion supported by its data 17
- Relate each graph to a conclusion supported by its data 18
- Relate each conclusion to its supporting representation 19
- Relate each representation to a conclusion supported by its data 20

Understand and identify the mode of a set of data
- Relate each line plot to its most frequently occurring data value or mode 21
- Relate each representation to its statement of mode 22
- Relate each mode to its data set.....................23
- Relate each data set to its mode.....................24

Big Ideas:
Groups of activities are organized around key Math concepts as they relate to the expectation noted in the title.

Activity List:
The learning outcome for each activity is listed here. This makes it easier for teachers to target specific concepts for **teaching, diagnostic** or **formative** assessment purposes.

Teacher Section

How to Use QUICKCHECK Math and Tips for Success 25

Learning Connection Activity Suggestions
- Mathematical Process Expectations: Reasoning and Proving; Connecting; Representing 26

Teacher Section:
Teachers will find helpful tips and Learning Connections Activity Suggestions at the back of each resource.

GETTING READY TO USE QUICKCHECK
You need a Student Resource and a case with six tiles.

- Open the Student Resource to Activity 1.
- **Put the empty tile case over the Student Resource.**
- The CHECKMARK will cover the answer key.
- There are six squares in the top section.
- Place each tile on the square that has the same icon.

- Lift each tile to reveal the image underneath.
- Transfer each tile to its corresponding image below.

- Close the cover of the tile case.

- Flip the tile case up.
- The answer key will appear.
- The tile pattern should match the answer key.

• Watch students using *QUICKCHECK Math* on our website at www.ebbp.ca Click on *QUICKCHECK Math in Motion.*

Grade 3
Student Resource Activity Page

Activity Title:
States the targeted learning outcome: Teachers know the purpose of the activity at a glance.

Activity Extension:
Provides new information for teachers or, ideas for further development of the activity.

Relate each missing set to its Venn diagram.

■ Have a Venn diagram of three circles and a group of buttons, shapes, or pebbles available for students to sort. Have students explain their sorting rule.

1. Match:
Students begin each activity by matching the shape icons on the tiles, to those in the squares of the top grid of the resource.

2. Think & Play:
Students move each tile from the top grid to the correct square in the bottom grid until all the tiles have been transferred.

3. Check:
Students close the cover of the plastic case and flip it up to see if the pattern revealed on the back of the tiles matches this answer key.

QUICKCHECK MATH

**Grade 3
Teacher Section**

Learning Connection Activity Suggestions: These suggestions are organized around the same key math concepts addressed in the 24 activities. They relate to some of the Mathematical Process Expectations used in the Math Curriculum.
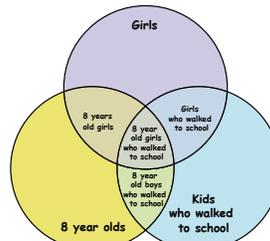
26 — TEACHER SECTION

LEARNING CONNECTION ACTIVITY SUGGESTIONS
Mathematical Process Expectations:
Reasoning and Proving; Connecting; Representing

■ **Sort and classify objects by two or more attributes simultaneously: Venn diagram**

■ **Organize, read, and interpret data: Venn diagram, bar graph, or line plot**

1. Have your students formulate a question about something that directly involves them. For the purposes of this lesson, it is important that the anticipated data can be sorted into three categories.

   For example: Which kids in our class walked to school today? Is there a group of students in our class that walked more than another group?

2. Plan three ways of sorting the data you collect and make a large Venn diagram on chart paper or on a white board to organize the data collected.

   Three possible categories might be girls, eight year olds and kids who walked to school. Highlight the sections where the data categories intersect. Label the data that fits in each intersecting section. See diagram:

Venn diagram: **Girls**, **8 year olds**, **Kids who walked to school**; with intersecting sections labeled: 8 years old girls; Girls who walked to school; 8 year old girls who walked to school; 8 year old boys who walked to school.

TEACHER SECTION

3. Collect the data according to the plan above.

   Make a large Venn diagram on the floor using long (skipping) rope circles. Have students sort themselves one category at a time. Start with a circle for the category "Girls;" next add a slightly overlapping circle for the category "Eight year olds." Girls who are eight must move to the section that intersects the two categories. Finally, add the third circle for the category "Kids who walked to school." Girls who are eight and walk to school must move to the section where all three circles intersect. Boys who are eight and who walked to school must move to the section where these two categories intersect, and so on.

4. Record the data within the chart-sized Venn diagram.

   While in their Venn circle groups, ask students to report on how many students:
   — are girls
   — are eight years old
   — walked to school.

   Next record the quantities of students in the intersecting sections. For example:
   — Girls who walk to school
   — Eight-year-old girls who walked to school
   — Boys who walked to school
   — Eight-year-old boys who walked to school.

5. Students read and interpret the data presented in the Venn diagram in small groups.

   Have groups copy the Venn diagram, including the data, from the chart or white board.
   Ask: "What does this Venn diagram tell us? What does it not tell us? Prove it."
   If necessary, use questions to probe further. For example:
   How many kids walked altogether? How many eight year olds? How many students who are not eight walked to school? How many boys walked? How many girls walked?

6. Represent, in a new way, only the data of the kids who walked to school.

   Have the small groups use the data in the Venn diagram to generate a bar graph or a line plot.

7. Find and record the mode of the data.

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