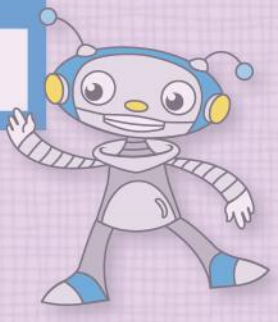
QUICKCHECK™ MATH



Grade level
Grade 3

KINESIS EDUCATION

DATA MANAGEMENT AND PROBABILITY

QUICKCHECK™ MATH

Read, Describe, and Interpret Data Presented in Charts and Graphs Including Vertical and Horizontal Bar Graphs

Book title

KINESIS EDUCATION

Strand

KINESIS EDUCATION

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

Student Activities

The title of the resource relates to an Overall Expectation of the Math Curriculum. KINESIS EDUCATION

Groups of activities are organized around key Math concepts as they relate to the expectation noted in the title. KINESIS EDUCATION

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

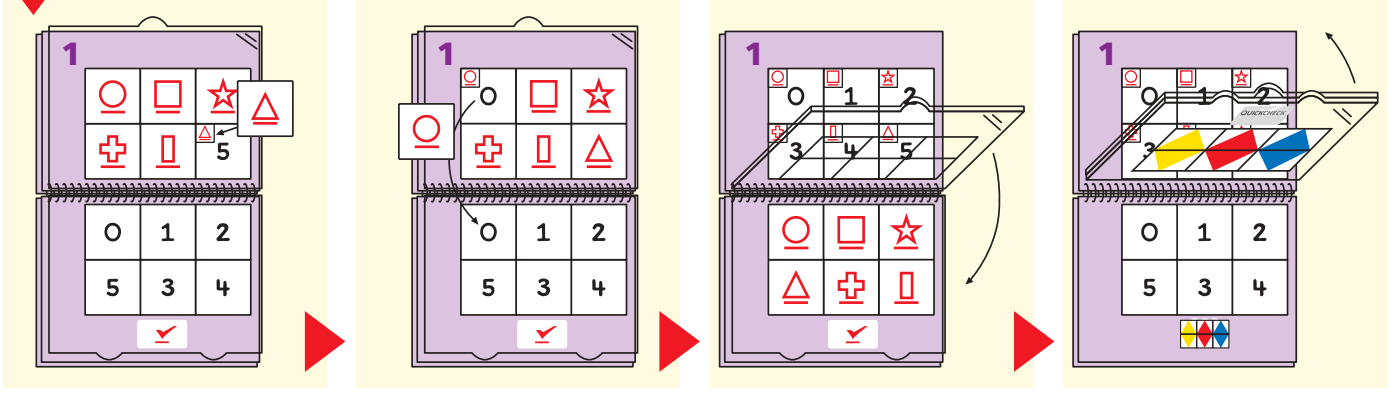
Teacher Section

How to use KINESIS EDUCATION

Teachers will find helpful tips and Learning Connections Activity Suggestions at the back of each resource. KINESIS EDUCATION

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.***

1 Relate each sorting rule to its sorted group.

■ This activity is the first of four that deal with sorting objects by two or more attributes simultaneously.

The activity extension provides new information for teachers or, ideas for further development of the activity.

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The activity title states the targeted learning outcome: Teachers know the purpose of the activity at a glance.

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

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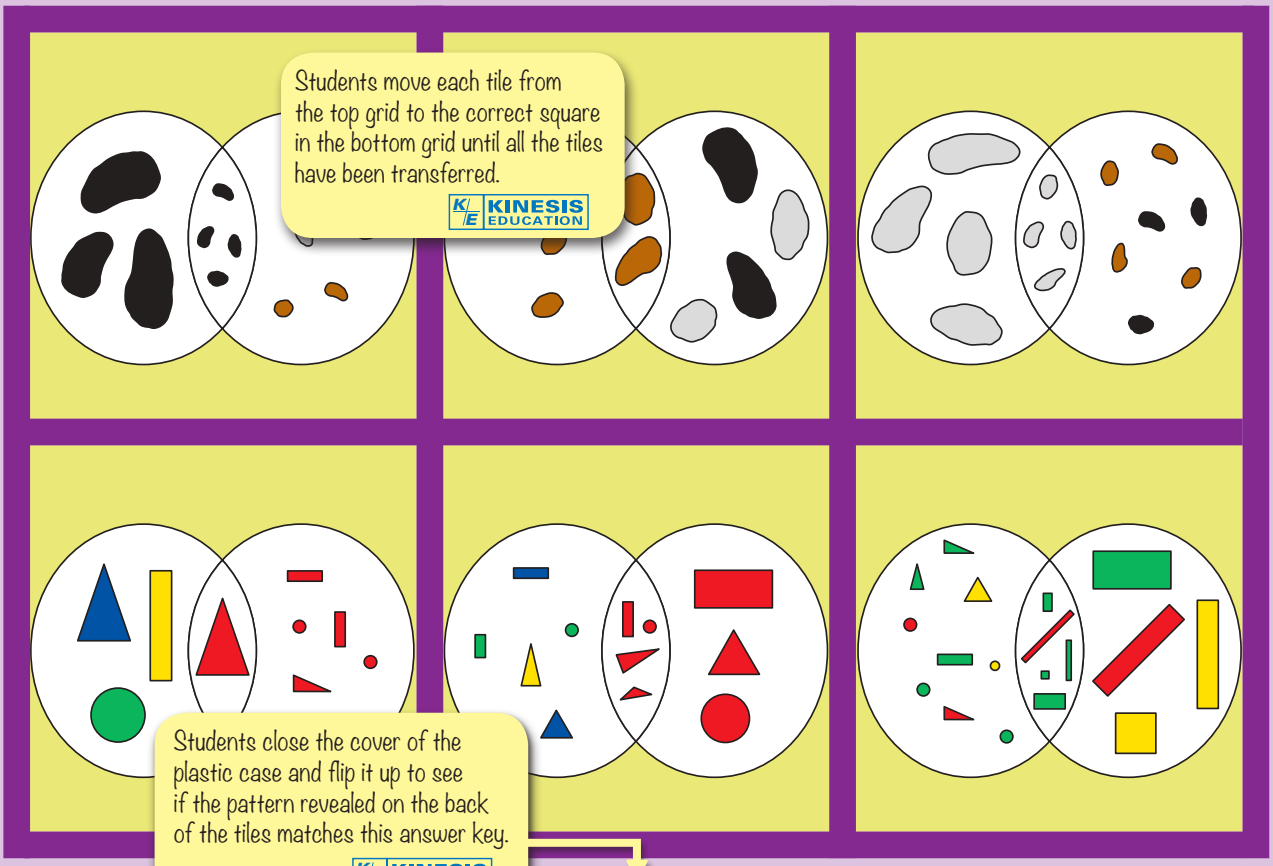

Students move each tile from the top grid to the correct square in the bottom grid until all the tiles have been transferred.

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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.

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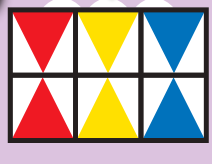

If ■ appears below the activity title:

Educators will then find new information or ideas for further development of the activity.

+ 23 activities

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How to Use QUICKCHECK Math

1. Use QUICKCHECK Math with your students whenever you would normally use a worksheet or workbook.

— Use it at any point in your math lesson:

Before/getting started
During/working on it
After/practice and consolidation.

— You can use QUICKCHECK Math as a small group or guided activity, in pairs to promote discussion, or as an independent activity in a Math Centre.

2. Use QUICKCHECK Math as an a

The Student Activities found on cover list learning outcomes that will help target specific concepts for **diagnostic** or **formative** assessment purposes.

This Student Resource is used in conjunction with the QUICKCHECK Math Grade 3 Ongoing Assessment Teacher Resource.

Additional proposals for the teacher

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Activity Extension:

If ■ appears below the activity title:

Educators will then find new information or ideas for further development of the activity.

Tips for Success

Review "Getting Ready to Use QUICKCHECK" on the first page of this book.

The CHECKMARK ✓ at the bottom of the plastic tile case shows students how to orient the case as they place it on the book on top of each activity.

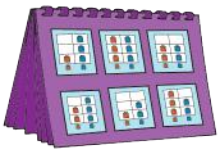
To teach your students how to use QUICKCHECK Math, try a three-step approach.

1. **Match**: Place all the tiles in the top grid by matching icons.
2. **Think and Play**: Lift each tile to reveal the image beneath and then transfer the tile to the corresponding image in the lower grid.
3. **Check**: Close the case cover. Flip the case up and check that the tile pattern matches the answer key.

When information appears below the title of an activity, use it to guide instruction and discussion, or to provide a hands-on extension of the activity.

Fold the Student Resource in half or stand it up and use the visual information as the stimulus for activities you create on your own.

See Activity 5



LEARNING CONNECTION ACTIVITY SUGGESTIONS

Mathematical Process Expectations:
Reasoning and Proving; Connecting; Representing

Sort and classify objects by two or more attributes simultaneously

Organize, read, and interpret data: Venn diagram, bar graph, or li

These learning connection activity 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.

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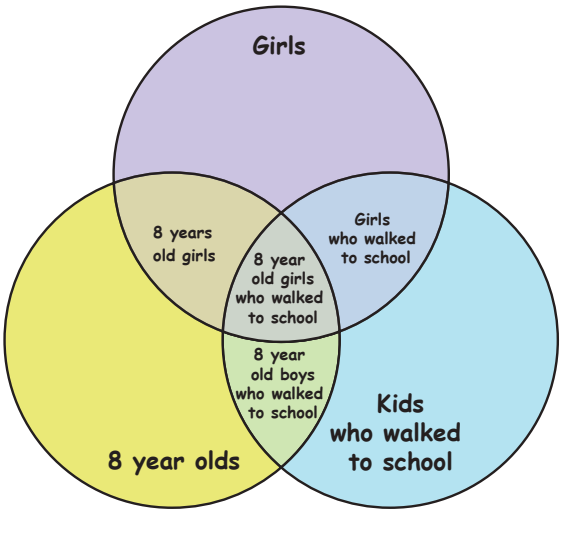
1. Have your students formulate a question about something that direct purposes of this lesson, it is important that the anticipated data can b

For example: Which kids in our class walked to school today? Is there 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:



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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Credits page

KINESIS EDUCATION

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The 5 mathematical strands for the Grade 3 level

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QUICKCHECK MATH

NUMBER SENSE AND NUMERATION

Solve Problems Involving Addition, Subtraction, Multiplication, and Division of Single and Multi-Digit Whole Numbers

MEASUREMENT

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GEOMETRY AND SPATIAL SENSE

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PATTERNING AND ALGEBRA

Describe and Extend a Variety of Numeric and Geometric Patterns

DATA MANAGEMENT AND PROBABILITY

Read, Describe, and Interpret Data Presented in Charts and Graphs Including Vertical and Horizontal Bar Graphs

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