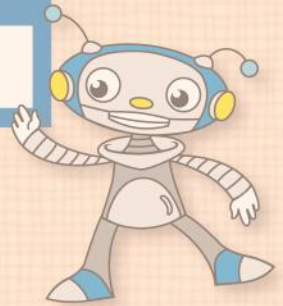


# QUICKCHECK™

## MATH



## NUMBER SENSE AND NUMERATION

Understanding Quantity  
and Number Relationships



# K

Grade level  
Kindergarten

Book title



Strand



# K/E

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



## Student Activities

### Understanding quantity: equivalent sets; conservation and subitizing; comparing; ordering

Relate each set of ants to its corresponding set  
 Relate each set to its corresponding set ..... 6  
 Connect each set of insects to its corresponding group ..... 7  
 Connect each set of lanterns to its corresponding set ..... 7  
 Compare each quantity to its corresponding set ..... 8  
 Relate each set to its corresponding set ..... 6  
 Connect each set of connecting cubes to its corresponding set of towers ..... 7  
 Connect each set of beads to its corresponding pair of bead strings ..... 8

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



Compare the number of dots on each ladybug to the same number of counters on a dot plate  
 Compare each sequence of ladybugs to its missing part ..... 12  
 Compare each sequence of number cubes to its missing part ..... 13

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.



### Number relationships: numerals; compositions of 5; 5 as an anchor number

Compare each number of fingers shown to its corresponding numeral ..... 12  
 Connect each numeral to its corresponding quantity ..... 13

Compare each decomposition of 5 to its corresponding composition ..... 14  
 Compare each composition of 5 to its corresponding decomposition ..... 15  
 Represent each number on a five frame ..... 16  
 Compare each five frame representation to its corresponding representation ..... 17  
 Represent each number on a number line ..... 17  
 Relate each number to the anchor of 5 on a number line ..... 18

### Number relationships: numerals; compositions of 10; 10 as an anchor

Compare each number of fingers shown to its corresponding numeral ..... 19  
 Compare each number of fingers on a number line ..... 20  
 Compare each composition of 10 to its corresponding composition ..... 21  
 Compare each composition of 10 to its corresponding decomposition ..... 22  
 Relate each number to its representation on ten frames or five and ten frames ..... 23  
 Relate each number to the anchor of 10 on a number line ..... 24

## Teacher Section

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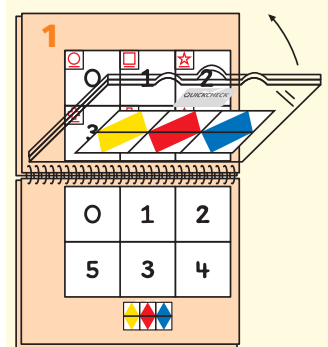
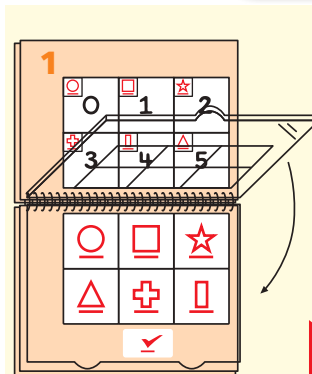
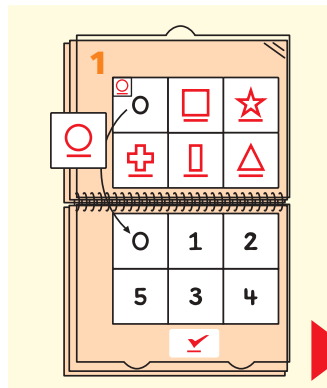
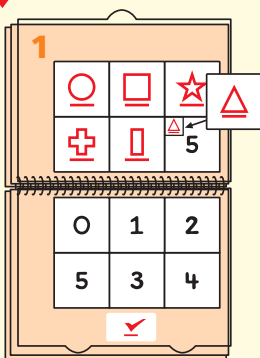
How to use



### GETTING READY TO USE QUICKCHECK

You need a Student Resource and a case with six tiles

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



- 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](http://www.ebbp.ca). Click on QUICKCHECK Math in Motion.



# Relate each set of ants to its corresponding set.

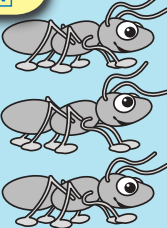

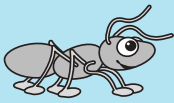
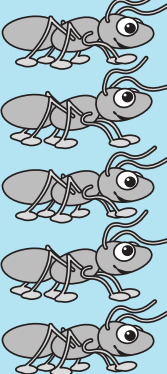

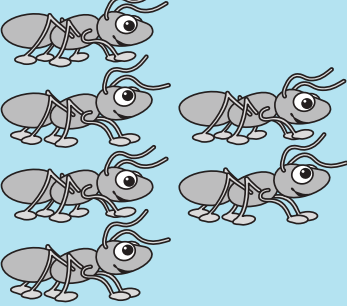
■ This activity is the first in a series that deals with equivalent sets. Notice: are students counting each set of ants or are they recognizing the quantity automatically from its visual formation (subitizing)?

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

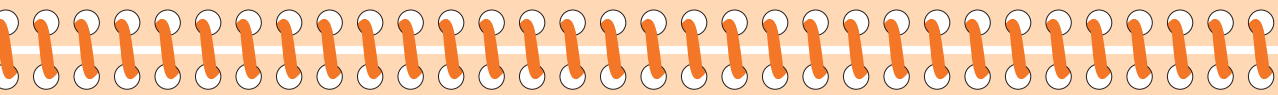


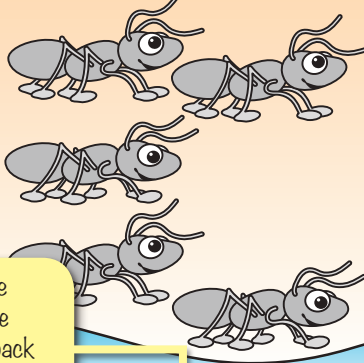
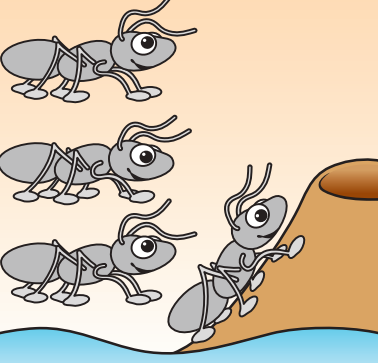
The activity title states the targeted learning outcome: Teachers know the purpose of the activity at a glance.



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

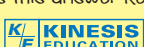


Students move each tile from the top grid to the correct square in the bottom grid until all the tiles have been transferred.



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.



**■** appears below the activity title:  
Educators will then find new information or ideas for further development of the activity.

+ 23 activities




## 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.

### 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.

2. Use QUICKCHECK Math as an assessment tool. The Student Activities found on the 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 Kindergarten Ongoing Assessment Teacher Resource.

#### Activity Extension:

##### If ■ appears below the activity title:

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

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 22



Additional proposals  
for the teacher



## LEARNING CONNECTION ACTIVITY SUGGESTIONS

### Mathematical Process Expectations:

#### Problem Solving, Representing and Communication

##### Understanding Quantity: equivalent sets; ordering

Create a Big Book illustrating quantities to 10 with your students. Get their *minds-on* for this task, provide several different materials: counters, number cubes and dominoes, so students can make a quantity you are working on. Using cardboard pages, work on one quantity at a time. Leave room for the numeral at the top of each page. In a group Math lesson, guide students to represent quantities in different ways: cut out pictures of a quantity from magazines; use cotton balls, stickers; cut out shapes from material of different textures. Encourage the children to tell you "how many" they made. Write what they say below their representation.

Provide five and ten frame templates for students who are able to use them to represent each quantity.

##### Number relationships: numerals; compositions of 5

Give students eight connecting cubes, four of one colour and four of another. Have students make/compose a "train" of five using both colours (if you want to include 5 and 0 and 0 and 5 then give students five of each colour of connecting cube). Once students have composed their train, have them represent it on a five frame template by colouring each section with the same colours as the cubes they used in their train. Ask the children to tell you how they made 5.

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.





To summarize, reflect on and discuss the class’s results; create a table on mural paper or on a blackboard, where each composition of 5 is represented by the headings: 1 and 4; 2 and 3; 3 and 2; and 4 and 1 (shown visually or visually and with number statements). Then, help students determine in which section their composition fits. Place it in that spot. If students want they can try another composition of 5 that is different from their first.

**Number relationships: numerals; 10 as an anchor number**

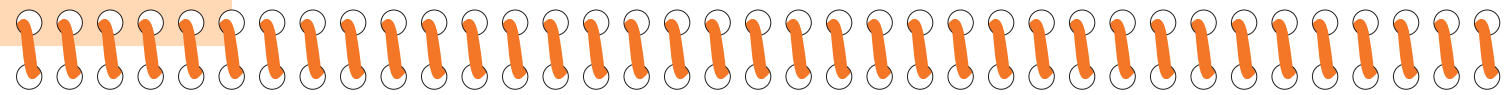
Use a ten frame to help students work through a variety of problems that are solved most efficiently by using 10, their knowledge of compositions of 10, and 10 as an anchor number.

- Using two-colour counters, have students demonstrate the following problems on a ten frame: You have five yellow balls and five red balls. How many balls all together? You have two yellow balls and Sasha has eight red balls. How many balls do you have all together? You need ten balloons for your party. You have blown up seven; how many more do you need to blow up?

Here is a simple open-ended problem that provides for a range of appropriate answers: There are ten balls; how many are red and how many are yellow?

- Have students fill a ten frame with round counters of the same colour. Pose some questions that they can demonstrate using the ten frame: You have ten balls; give two to your friend; how many are left? You have ten balloons and a friend gives you one more. How many do you have now?

Maya and her friend Vaughan have thirteen pennies. Ten are Maya’s. How many pennies are Vaughan’s?



Canada

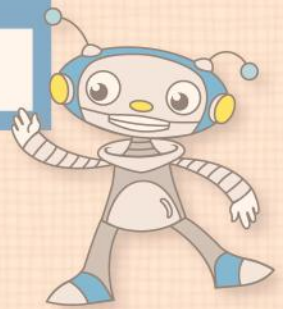
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Understanding Quantity and Number Relationships



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