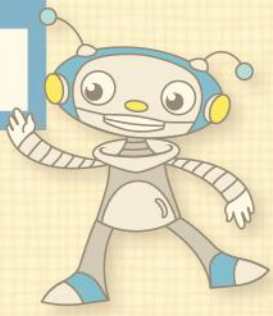
QUICKCHECK™ MATH



K

Grade level
Kindergarten

KINESIS EDUCATION

PATTERNING

Identify, Extend and Reproduce Repeating Patterns

Strand

KINESIS EDUCATION

QUICKCHECK™ MATH

Book title

KINESIS EDUCATION

K/E

IDENTIFY, EXTEND AND REPRODUCE REPEATING PATTERNS

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

Student Activities

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

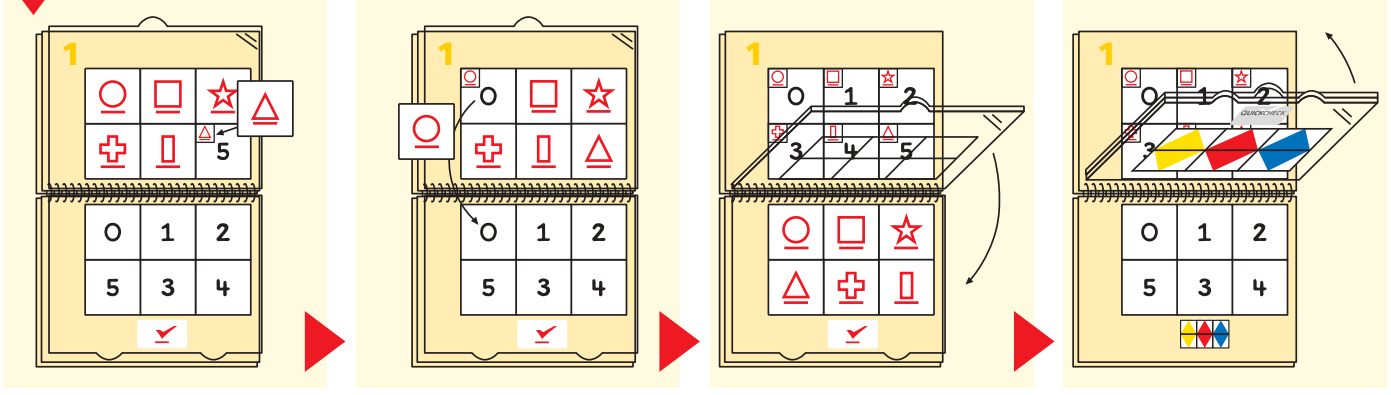
Teacher Section

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.

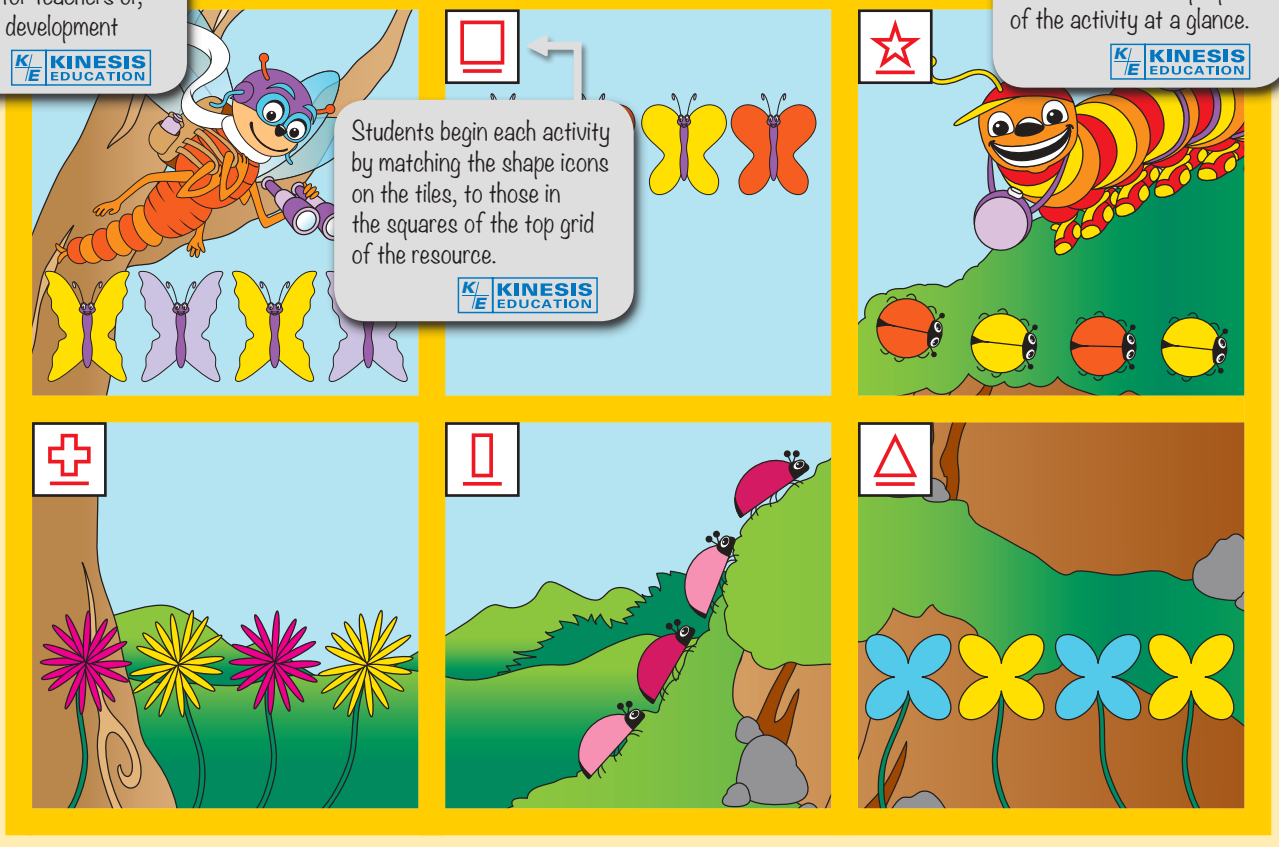
- **Watch students using *QUICKCHECK Math* on our website at www.ebbp.ca. Click on *QUICKCHECK Math in Motion.***

1 Match each AB repeating pattern by colour.

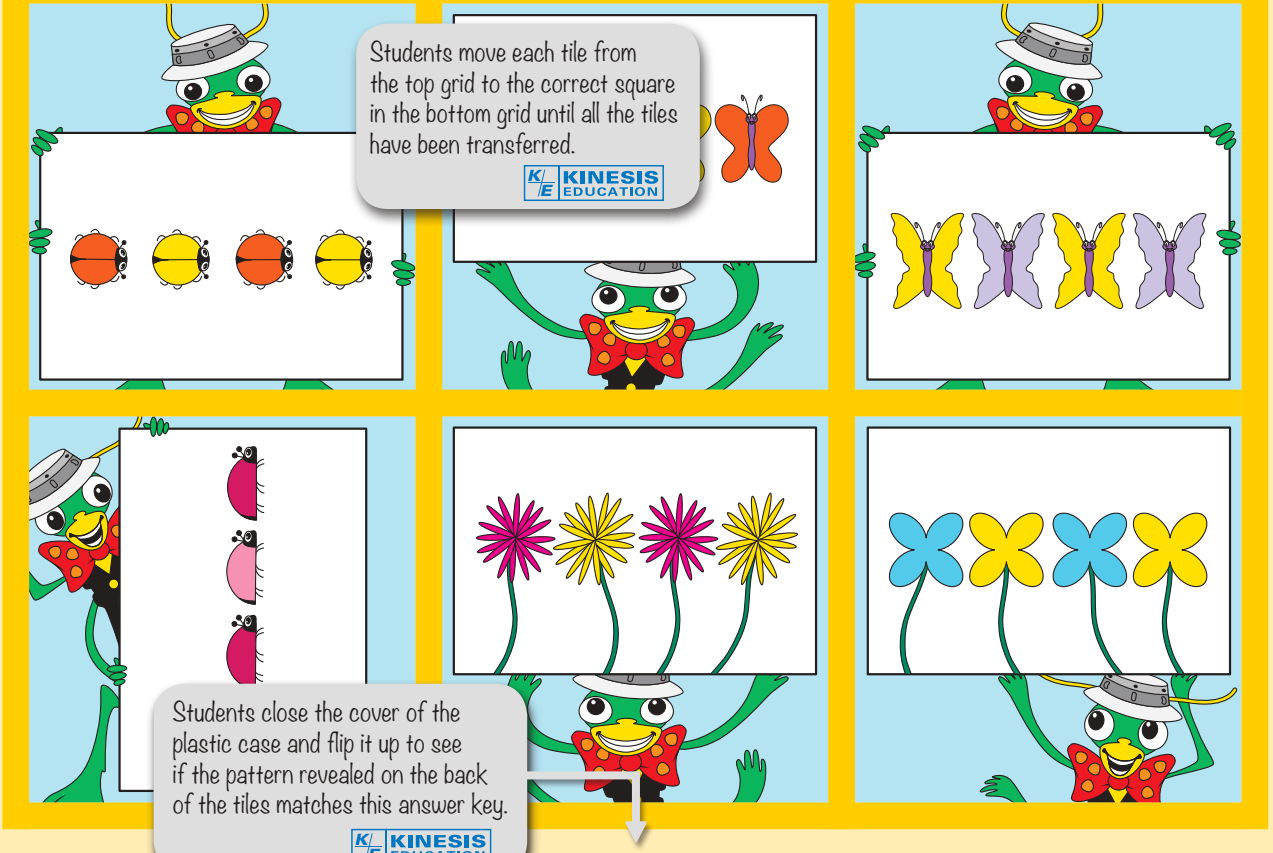
■ This activity is the first in a series of four that look at colour as an attribute of objects that can be repeated in a pattern.

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.

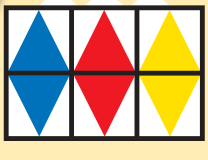


Students begin each activity by matching the shape icons on the tiles, to those in the squares of the top grid of the resource.



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.



If ■ 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

Additional proposals for the teacher

KINESIS EDUCATION

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 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.

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 4

LEARNING CONNECTION ACTIVITY SUGGESTIONS

Mathematical Process Expectations: Communicating and Problem Solving

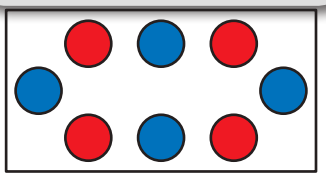
These learning connection activity suggestions are organized around the same key math concepts addressed in the 24 activities. They relate to some of the Mathematical Process Expectations used in the Math Curriculum.

KINESIS EDUCATION

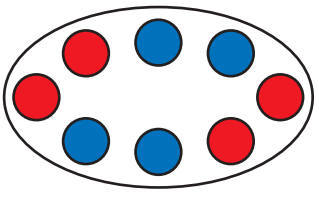
Colour, shape and size are attributes of objects that can be repeate and extended in a pattern

Hold a "Pattern Party":
Celebrate what you are learning about patterning by hosting a class "P students invite a guest: parent, grandparent, or sibling, or invite your cl Make a standard invitation template and ask students to add a repeatir party activities and snacks so they include repeating patterns. For exam

1) Buy red and blue plates. "I have red and blue plates for the party. Let's set the plates for the party in a pattern on each table. How could we set them up?" On chart paper, draw a picture of the students' suggestions. Then have the group check to see if it is a repeating pattern. Students can use table templates to plan their suggestions before discussing with the group. Based on the ideas shared, plan to set your tables with patterns suggested by the students.



2) Prior to party day, have each student make a repeating colour pattern party crown using two differently-coloured bingo daubers or shape stickers.



3) Decorate the room with pattern art: use different pasta shapes to make textured repeating patterns.

4) Have each student make a pattern book to share with their guests. Ideas for books: colour pattern books using bingo daubers, shape pattern books using shape stickers or size pattern books using markers. Have students "read" their patterns to their guests, then prepare the students with simple guessing games they can play with their guest using their books. E.g. "Can you guess what would come next?" Students hide a piece of the pattern under their hand: "Can you guess which part of my pattern is hidden?"

TEACHER SECTION

Sound is an attribute of objects that can be repeated and extended in a pattern

Sit in a circle and have students turn and talk to a/their neighbour to come up with a pattern that uses sound: clapping, tapping on laps. Ask for volunteers to share their ideas. Write several ideas on chart paper or a white board. Have the class chant each pattern as you or a volunteer point to each word. Then as a group, do selected patterns in unison.

Next, start with an A, B, A, B… pattern and go around the circle having each student do one term in the pattern (e.g. first student claps, the next one taps, the next one claps and so on). See if the class can extend the pattern all the way around the circle. Starting with the same student as before, have the class chant the pattern as they do the actions. Finally, extend the activity and have each child alternate saying "A, B, A, B…"

The same pattern rule can be reproduced in different ways

Beginning with an A, B, A, B… pattern select four students to line up at the door at transition times. You can alternate boy/girl or colour of shirts or JK/SK or something else. "These four students are lining up in a pattern. What comes next?" Complete the pattern. Next time try an AA, BB, AA, BB… pattern.

Wear an A, B, A, B… necklace. "My necklace has a pattern. Make a necklace that is the same pattern."

Next time use an AA, BB, AA… pattern.

Try:
"A necklace/cube tower has a pattern. What could it be? Show me/tell me."
"A necklace/cube tower has a pattern that has two yellow and two blue pieces. Make it."

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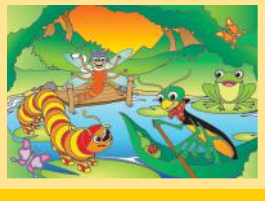
QUICKCHECK MATH

The 5 mathematical strands for the Kindergarten level

K/E KINESIS EDUCATION

NUMBER SENSE AND NUMERATION

Understanding Quantity and Number Relationships



MEASUREMENT

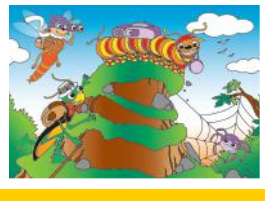
Compare and Order Two or More Objects According to One Measurable Attribute

GEOMETRY AND SPATIAL SENSE

Identify and Describe Shapes and Figures

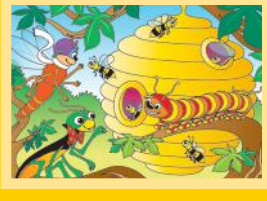
PATTERNING

Identify, Extend and Reproduce Repeating Patterns



DATA MANAGEMENT AND PROBABILITY

Sort, Classify, Represent and Compare Objects Using a Variety of Attributes



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