



**3**

Grade level  
Grade 3



# GRADE 3



# ONGOING ASSESSMENT






## TEACHER RESOURCE

EXCERPT

Assessment questions  
or tasks are provided  
for all 5 strands



**Kelly Dixon**

-  **Number Sense and Numeration**
-  **Measurement**
-  **Geometry and Spatial Sense**
-  **Patterning and Algebra**
-  **Data Management and Probability**






# **ONGOING ASSESSMENT TEACHER RESOURCE**

## QUICKCHECK MATH ASSESSMENT TEACHER AND STUDENT RESOURCES

Assessment Teacher Resources (ATR) Packages	Product Number	ISBN
■ Kindergarten Ongoing ATR Grade Package	404 1109	978-2-7615-0459-1
■ Diagnostic and Ongoing ATR Grade 1 Package	404 0762	978-2-7615-0442-3
■ Diagnostic and Ongoing ATR Grade 2 Package	404 0770	978-2-7615-0448-5
■ <b>Diagnostic and Ongoing ATR Grade 3 Package</b>	<b>404 1216</b>	<b>978-2-7615-0454-6</b>

Assessment Teacher Resources for the 4 levels



The following packages are available for those who have already purchased an Instructional Student Resource Grade Package (books and cases).

Teacher and Student ATR Grade Add-On Package	Product Number	ISBN
■ Kindergarten Ongoing ATR Add-On Package	404 1125	978-2-7615-0460-7
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# GRADE 3

QUICKCHECK™

MATH



3

Grade level  
Grade 3



# ONGOING ASSESSMENT TEACHER RESOURCE

Assessment questions  
or tasks are provided  
for all 5 strands



**Kelly Dixon**

- Number Sense and Numeration
- Measurement
- Geometry and Spatial Sense
- Patterning and Algebra
- Data Management and Probability



**Canada** We acknowledge the financial support of the government of Canada, for our publishing activities.

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As teachers, we want each of our students to **get** what we are teaching. Often, our hope is to have students **get there** as quickly and as best as they can. Although the goal of achieving curriculum expectations is common for all students, the starting points and routes in reaching this goal differ widely. In our work to enable students to achieve the common goal, it is important to be explicit in our assessment and instruction.

How do we do this? We need to assess our students at the beginning and throughout the learning cycle so we can provide them with ongoing, specific feedback and guidance for growth. Some of the most effective ways to do this with young children are in individual or small group assessment contexts, and through observations and teacher-student conferences.

This *QUICKCHECK Math Ongoing Assessment Teacher Resource* provides both *diagnostic* and *ongoing* assessment activities for all five strands of the mathematics curriculum. It offers guidance and structure in an easy-to-use format for student-teacher assessment conferences, either with individuals or small groups of students. This Assessment Resource provides a variety of opportunities for students to demonstrate their learning. Every assessment activity uses open questions and tasks that allow for a range of student responses and that reveal student strategies and thinking. *What to Look For* sections help make connections between assessment observations and curriculum expectations. These connections are particularly useful when providing students and parents with specific feedback on growth and on next steps.

The format of the *QUICKCHECK Math Ongoing Assessment Teacher Resource* is open and flexible. There is no need to do all the assessment activities in each strand section. We have provided a number of choices for activities that assess similar concepts and skills; it is entirely your decision as to which activities you choose to use to assess your students. You decide how often you need to assess your students and whether or not you will assess them individually or in small groups. *Student Observation Sheets* for each activity are offered as an option for recording your assessment observations. These reproducible sheets are found at the end of each section when required.

We are indebted to the teachers of the Toronto District School Board who piloted these Assessment Resources and whose feedback was essential to the development of their final forms.


Kelly Dixon

Author's word



**QUICKCHECK MATH ONGOING ASSESSMENT TEACHER RESOURCE**

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## Data Management and Probability

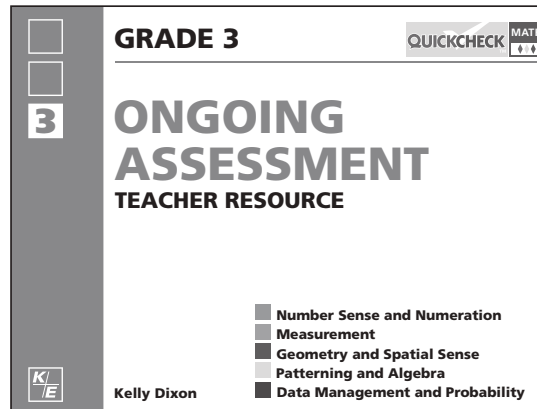
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## GATHER THE FOLLOWING FOR YOUR ASSESSMENT

### Assessment Teacher Resource


- Choose an assessment activity from any of the math strand sections contained



Gather the following before you begin your assessment:

1. Assessment Teacher Resource
2. Select the activity in the Student Resource
3. Manipulatives and \*Templates
4. Ongoing Student Observation Sheets

\*Reproducible templates provided



### Instructional Student Resources Packages

- Select the activity in the Student Resource that corresponds to the assessment activity you chose from the *Ongoing Assessment Teacher Resource*.





**QUICKCHECK MATH ONGOING ASSESSMENT TEACHER RESOURCE IN THREE EASY STEPS**

How to use the  
Ongoing Assessment  
Teacher Resource



1. Assessment activities are organized by strand and are designed to be used with individual or small groups of students. The **Check Point assessment activities** in this book have been designed for diagnostic assessment purposes **during** a cycle of learning. See the Grade 3 Diagnostic Assessment Teacher Resource for assessment activities that are appropriate for use **prior to** a cycle of learning.
2. Use any of the **assessment activities** depending on your purpose and the needs of your students. (The *What to Look For* section helps you discover what your students know and what they need to learn, and The *What to Look For* section focuses on student thinking and strategies. If you need a system for recording your assessment observations, copy the Student Observation Sheet that corresponds to the assessment activity you have selected. Student Observation Sheets for each activity can be found at the end of each strand section.
3. Prior to using an **assessment activity**, gather the suggested manipulatives and have students complete the corresponding activity in their *QUICKCHECK Math Student Resource*.

**The responses that you observe from students through these assessment activities will help you:**

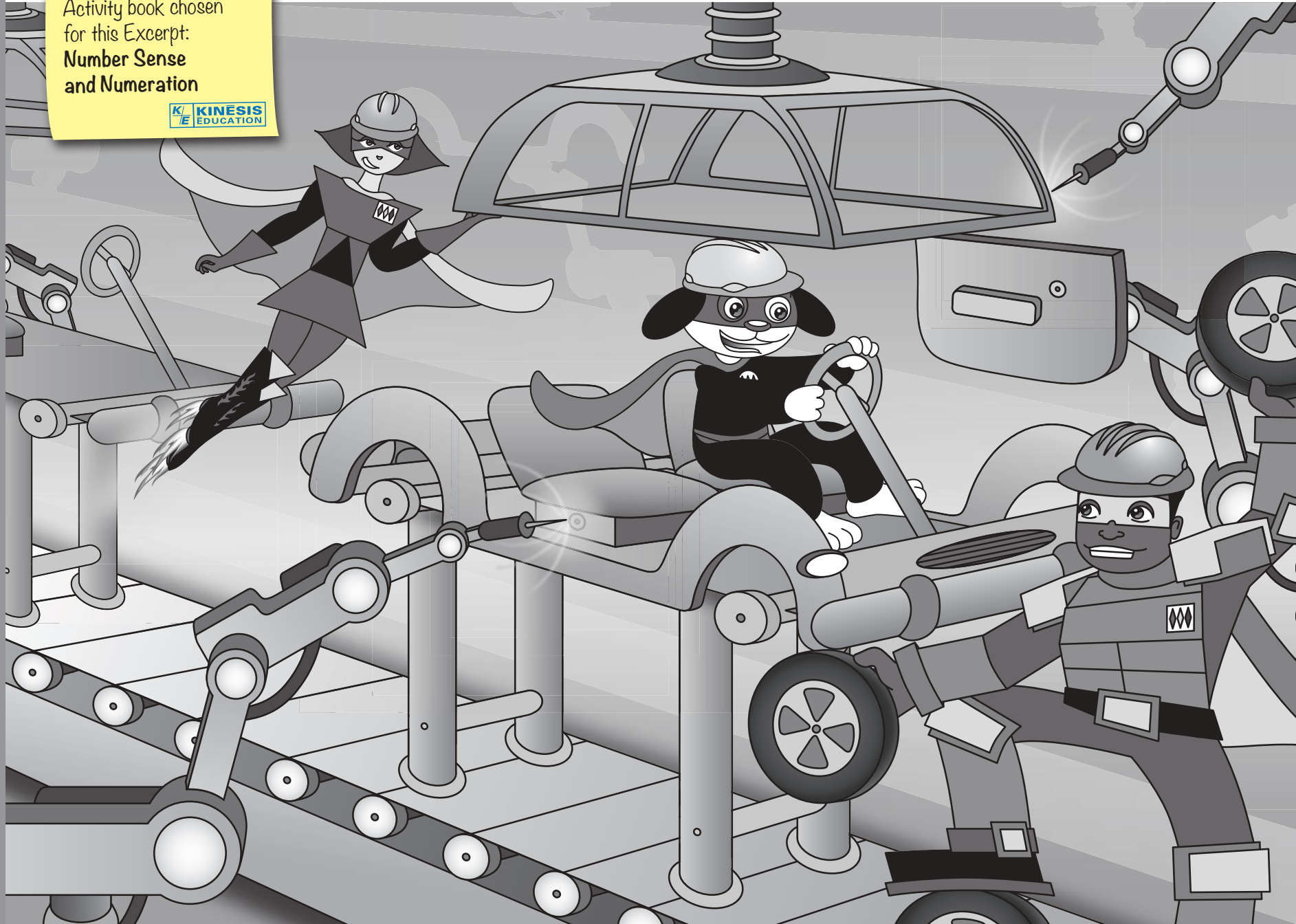
- Gather useful information for reporting and interviewing purposes
- Pinpoint specific areas for future math instruction.

# ONGOING ASSESSMENT

## NUMBER SENSE AND NUMERATION



Activity book chosen  
for this Excerpt:  
**Number Sense  
and Numeration**



# 1

## Connect each base 10 model to its three-digit number.

This number and heading relate to the same number in the Student Resource.



### Assessment Focus

Outlines the content to be assessed and often strategies to look for.



This activity gives students the opportunity to identify and label the place values in three-digit whole numbers using base 10 manipulatives and digits. Students use their understanding of the base 10 system, counting, adding, subtracting, or multiplying by 1s, 10s, and 100s to compose and decompose whole numbers.

A strong foundation in place value is critical to a deeper understanding of quantity relationships and the ability to be flexible when solving problems. This understanding must precede the teaching of traditional column algorithms for addition and subtraction with and without borrowing or re-grouping.

### Materials Needed

Have base 10 manipulatives or photocopied paper models of base 10 manipulatives from the Base 10 Manipulatives Template, a large cloth, paper, and pencils available for the following assessment tasks. The Base 10 Manipulatives Template can be found at the end of this strand section on page 37.

Lists the manipulatives and templates needed for the particular assessment activity.



## Number Sense and Numeration

### 1

#### Connect each base 10 model to its three-digit number.

This activity is the first of five that deal with representing, composing, and decomposing three- and four-digit numbers.

**Student Resource:**  
A reproduction of the activity in the Student Resource needed for the assessment tasks.

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



## Question/Task

### Question/Task:

Open questions and tasks allow for a range of appropriate student responses and help reveal student strategies and thinking.

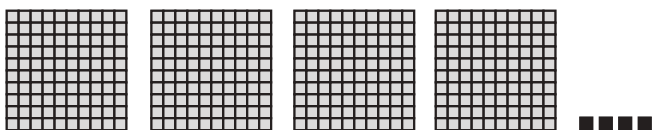
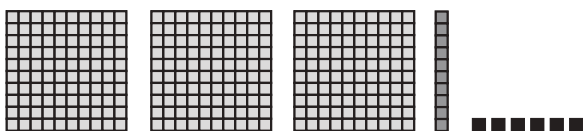
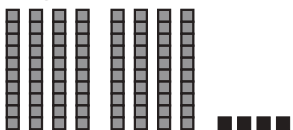
\*Choose which tasks and questions suit your purposes the best. There is no need to do them all.



h, base 10 manipulatives, pencils, and paper  
show each number for several seconds and  
it with the cloth.

re going to play a guessing game. I am  
make a number using base 10 manipulatives.  
n or copy the number I make. I am only  
ow it to you for a few seconds. Ready?"  
model when students are finished writing.

E.g.: Show:



After students record each number using digits:

Ask: "Look at the number you have written.  
How many 100s/ 10s/ 1s should I have under the cloth?  
How much is 8 tens? 4 ones?"

Say: "Change one of the digits. What did you change?  
What number is it now? Change the blocks so that the  
number matches."

## What To Look For

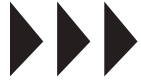
- Do students know to use a single place value, i.e., eighty-four is represented as 84 and not 804. Three hundred and sixteen is represented as 316 and not 30016?
- In the example that shows four tens and two ones, do students know to use 0 as a placeholder? If any student uses 0 in the tens place? If any student writes 42 instead of 402 here, ask him or her to count the base 10 materials to compose the number. Do they know the value of each block?
- Students use counting, addition, or multiplication to justify their answers. E.g.: "There are 8 tens. 10, 20, 30, 40, 50, 60, 70, 80. 8 tens are 80," or, "There are 8 tens.  $8 \times 10 = 80$ . 80 and four more is 84."
- Students use their knowledge of counting, adding, or subtracting by ones, tens, and hundreds to justify their answers.
- Probe further: add 30 to the first number. "What number is it now? Show me."

### What to Look For:

Defines a range of appropriate responses and strategies to help you make connections between your observations and curriculum expectations.



## Connect the cost of each set of items to the amount of change owed.



### Check Point #3

The **Check Point assessment activities** in this book have been designed for diagnostic assessment purposes during a cycle of learning.



...ants the opportunity to explore and ... strategies to solve addition and ... they relate to money. Some of the ... partitioning, the associative property of addition, grouping by 10, using numbers, and subtraction as adding up.

This assessment activity should not take place until students have received instruction on making change.

### Materials Needed

Have pencils, paper, \$2, \$1, 25¢, 10¢, 5¢, and 1¢ coins, and base 10 manipulatives available for the following assessment tasks.

Lists the manipulatives and templates needed for the particular assessment activity.



This number and heading relate to the same number in the Student Resource.



Outlines the content to be assessed and often strategies to look for.



## Number Sense and Numeration

### Connect the cost of each set of items to the amount of change owed.

■ "What change will the superhero get after buying the items? Use a pencil and paper and/or a calculator to figure this out." Students might find using real coins and bills helpful here.

**Student Resource:**  
A reproduction of the activity in the Student Resource needed for the assessment tasks.




## Question/Task

## What To Look For

### Question/Task:

Open questions and tasks allow for a range of appropriate student responses and help reveal student strategies and thinking. \*Choose which tasks and questions suit your purposes the best. There is no need to do them all.



Students look only at the top grid of their Student point to the bottom left square.

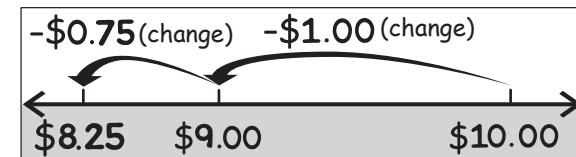
How much do the whistle and the cap cost? Show me how you know using coins or number line. Now how much change is owed if Superhero uses \$10 to pay for both things?"

Repeat the above questions using the example from the right square of the top grid.

There are a variety of strategies to answer this question.

E.g.: Students use coins to find the cost of the cap and the whistle, starting adding/counting on by 25 cents.

The cost of the cap and the whistle is \$10.00. The difference between \$10.00 and the cost of the items leaves the change owed. Students may reason,  $\$10.00 - \$1.00 = \$9.00$  and the difference between \$9.00 and \$8.25 is 75 cents. The change owed is  $\$1.00 + \$0.75 = \$1.75$ .



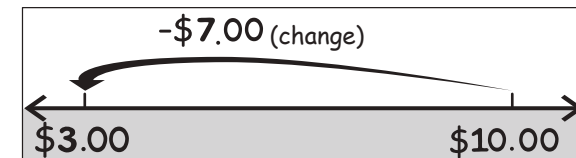
### What to Look For:

Defines a range of appropriate responses and strategies to help you make connections between your observations and curriculum expectations.



2 Ask: "Hannah used \$10.00 to buy some things at the store. She has \$3.10 left. About how much did Hannah spend?"

Repeat the above using a new word problem.



"\$3.10 is close to 3; I know that  $10 - 7 = 3$ ; Hannah spent about \$7.00."



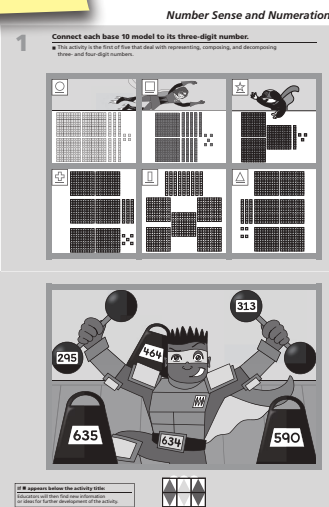


**STUDENT  
OBSERVATION SHEETS**  
NUMBER SENSE AND NUMERATION

GRADE 3  
ONGOING STUDENT OBSERVATION SHEET  
NUMBER SENSE AND NUMERATION

Name:

Assessment Activity  
Correlation

Date:

1	Student Knows	Next Steps for Learning
<p><b>1</b> <b>Connect each base 10 model to its three-digit number.</b></p> <p><b>Assessment Focus</b> This activity gives students the opportunity to identify and represent the place values in three-digit whole numbers using base 10 manipulatives and digits. Students use their knowledge of the base 10 system, counting, adding, subtracting, or multiplying by 1s, 10s, and 100s to compose and decompose whole numbers.</p> <p>A strong foundation in place value is critical to a deeper understanding of quantity relationships and the ability to be flexible when solving problems. This understanding must precede the teaching of traditional column algorithms for addition and subtraction with and without borrowing or re-grouping.</p> <p><b>Materials Needed</b> Have base 10 manipulatives or photocopied paper models of base 10 manipulatives from the Base 10 Manipulatives Template, a large cloth, paper, and pencils available for the following assessment tasks. The Base 10 Manipulatives Template can be found at the end of this strand section on page 37.</p> 	<p><input type="checkbox"/></p> <p>Prior to the assessment list the appropriate knowledge, skills and strategies to look for during the assessment.</p> <p>For guidance with identifying these, use the <b>Assessment Focus</b> and <b>What to Look For</b> sections from the specific assessment activity you choose. Your curriculum documents are excellent sources as well.</p> <p><input type="checkbox"/></p> <p>Check the appropriate boxes as you observe and listen to student responses during the assessment.</p> 	<p><input type="checkbox"/></p> <p>Prior to the assessment list the same knowledge, skills and strategies here as you listed in the Student Knows column. Check the appropriate boxes as you observe and listen to student responses during the assessment.</p>  <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>

**Other Questions I Have About the Student's Learning**

Here are some examples of questions you can ask students to probe for their mathematical thinking and understanding:

"How do you know \_\_\_\_\_? Show me/tell me."

"What is the same and what is different about \_\_\_\_\_ and \_\_\_\_\_?"

"Do you think that...?"

"What if...?"

Your assessment observations may bring up further questions about your student's learning. If so, record them here. You may find some of the open questions provided here helpful as you probe further for mathematical thinking and understanding.

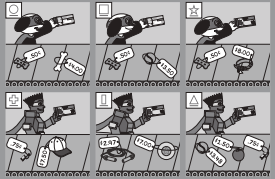
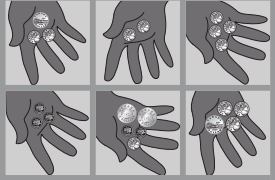


GRADE 3  
ONGOING STUDENT OBSERVATION SHEET  
NUMBER SENSE AND NUMERATION

Name:

Date:

Assessment Activity  
Correlation

11 Connect the cost of each item to the amount of change owed.	Student Knows	Next Steps for Learning
<p><b>11</b> Connect the cost of each item to the amount of change owed.</p> <p><b>Check Point #3</b></p> <p>The <b>Check Point</b> assessment activities in this book have been designed for diagnostic assessment purposes during a cycle of learning.</p>   <p><b>11</b> Connect the cost of each set of items to the amount of change owed.</p> <p><small>*When change will be the amount per after buying the items like a pencil and paper and/or a calculator to figure the cost. *Students might find using real coins and bills helpful here.</small></p>	<p><input type="checkbox"/></p> <p>Prior to the assessment list the appropriate knowledge, skills and strategies to look for during the assessment.</p> <p><input type="checkbox"/></p> <p>For guidance with identifying these, use the <b>Assessment Focus</b> and <b>What to Look For</b> sections from the specific assessment activity you choose. Your curriculum documents are excellent sources as well.</p> <p><input type="checkbox"/></p> <p>Check the appropriate boxes as you observe and listen to student responses during the assessment.</p>	<p><input type="checkbox"/></p> <p>Prior to the assessment list the same knowledge, skills and strategies here as you listed in the Student Knows column. Check the appropriate boxes as you observe and listen to student responses during the assessment.</p>

Other Questions I Have About the Student's Learning

Here are some examples of questions you can ask students to probe for their mathematical thinking and understanding:

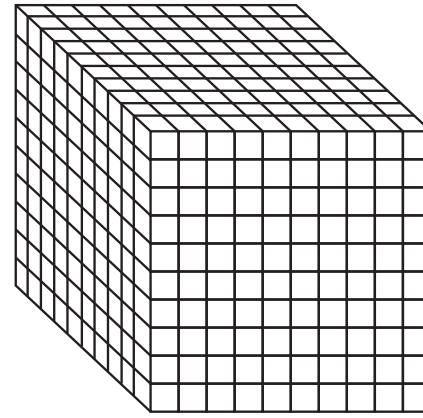
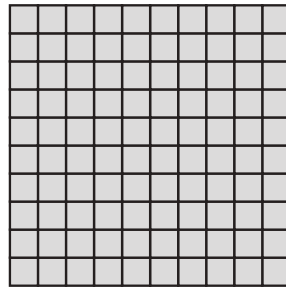
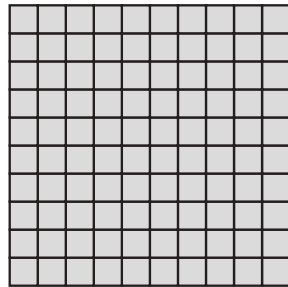
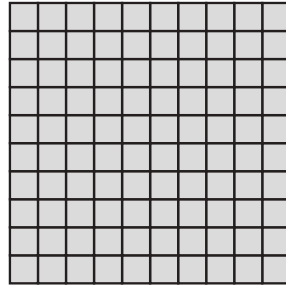
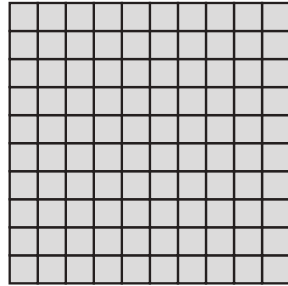
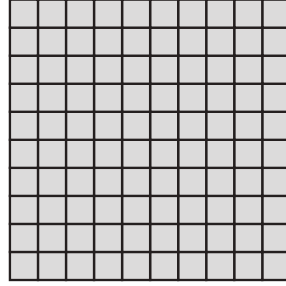
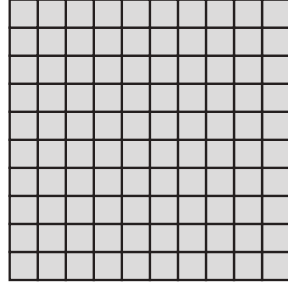
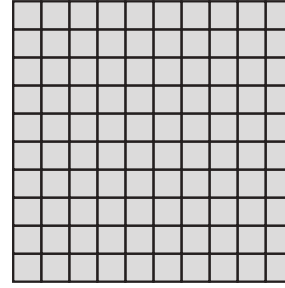
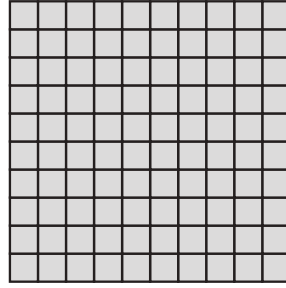
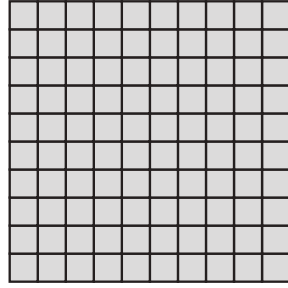
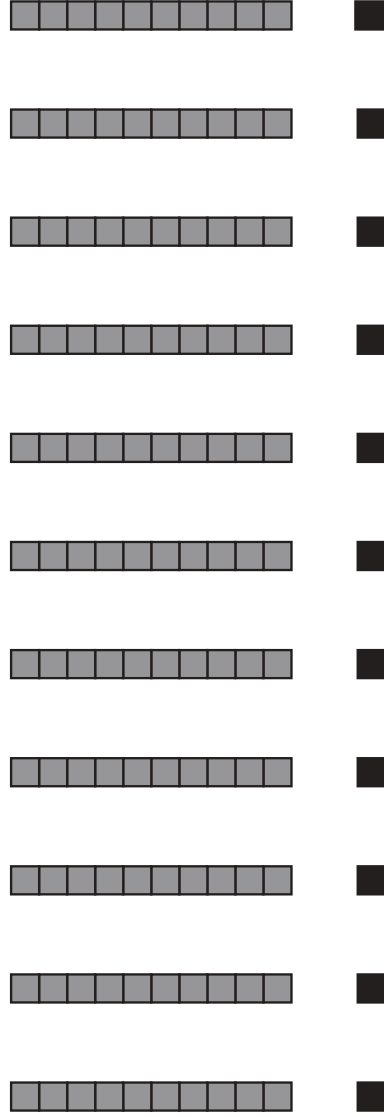
"How do you know \_\_\_\_\_? Show me/tell me."

"What is the same and what is different about \_\_\_\_\_ and \_\_\_\_\_?"

"Do you think that...?"

"What if...?"

Your assessment observations may bring up further questions about your student's learning. If so, record them here. You may find some of the open questions provided here helpful as you probe further for mathematical thinking and understanding.



Reproducible templates provided



# TEACHER NOTES

Additional page  
to enter your notes



# ONGOING ASSESSMENT

## DATA MANAGEMENT AND PROBABILITY



Activity book chosen for this Excerpt:  
**Data Management and Probability**



## Relate each statement to its corresponding pictograph.

This number and heading relate to the same number in the Student Resource.



### Assessment Focus

Outlines the content to be assessed and often strategies to look for.



Activity gives students the opportunity to read and interpret data presented in a pictograph. Students identify a key. They identify a question that the data pictograph can answer. Students make a bar graph using values from an addition number sentence.

### Materials Needed

Have paper, pencils, markers, and the Bar Graph Grid Template available for the following assessment tasks.

\* A photocopiable Bar Graph Grid Template can be found at the end of this strand section for your use on page 205.

Lists the manipulatives and templates needed for the particular assessment activity.



\* Reproducible templates can be found at the end of this section.



## Relate each statement to its corresponding pictograph.

**Student Resource:**  
A reproduction of the activity in the Student Resource needed for the assessment tasks.




## Question/Task

## What To Look For

### Question/Task:

Open questions and tasks allow for a range of appropriate student responses and help reveal student strategies and thinking.

\*Choose which tasks and questions suit your purposes the best. There is no need to do them all.



Students look only at the top grid of their Student Resource. Point to the equation in the bottom right square. Values in this number sentence show the total books read by four people. Make a bar graph to show this relationship.”  
Recommend that students use the *Bar Graph* page. It is important that they know that they are expected to fill the whole graph. It will depend on the scale that they choose.

2. Have students look only at the bottom grid of their Student Resource.  
Ask: “What question could these pictographs answer?”  
Point to the pictograph in the bottom middle and ask: “How many books does half a book (symbol) represent? How do you know?”  
Say: “Find a pictograph that shows two characters who have read the same number of books. How many books did they read? Write a number sentence to show me how you know.”  
Say: “Using the same pictograph, tell me how many books all the characters have read altogether. Write a number sentence to show me how you know.”  
  
Ask: “Which pictograph shows that Monkey read more books than Ninja Beagle? How many more books did Monkey read? How do you know? Is there another pictograph that you could have selected? Why?”

- Students make a vertical or horizontal bar graph that includes a title and labelled axes. Do they use a scale? Five-to-one, ten-to-one, or something else, best, as long as students use half a book accurately.
- Students represent 5, 20, 20, and 20 books with individual bars on their graph.

### What to Look For:

Defines a range of appropriate responses and strategies to help you make connections between your observations and curriculum expectations.



- Students use the title and symbols to justify their answer. E.g.: “The data in the pictograph answers the question: How many books have each of the characters read?” If students do not read the title, they may also interpret the question as “How many books does each character have?” or something similar.
- Do students understand that half of 10 is 5, so if 1 book = 10, then  $\frac{1}{2}$  a book = 5?
- Students can select any of the pictographs in the bottom grid; e.g., students point to the pictograph in the top right corner: “This pictograph shows that the Super Girl and the Super Guy have read the same number of books. Each book in the pictograph represents eight books read, so  $4 \times 8 = 32$  books read, or  $8 + 8 + 8 + 8 = 32$ ,” or another answer similar.
- Students calculate the number of books read by each character and then add them together to get the total books read by all the characters. “ $12 + 32 + 32 + 24 = 100$ ; the characters read 100 books altogether.”
- What strategy do students use: counting, adding, subtracting, multiplying, or visually concluding that there are two pictographs that show this relationship?

## Connect each table to its representation on a line plot.

This number and heading relate to the same number in the Student Resource.



### Check Point #2

The **Check Point assessment activities** in this book have been designed for diagnostic assessment purposes during a cycle of learning.



Students have the opportunity to relate data from a table to its representation on a line plot. Students read (interpret) and describe data from a table. Students answer a survey question and collect data. Students organize and present data graphically using a title and labels. Students use a one-to-one or many-to-one scale.

Outlines the content to be assessed and often strategies to look for.



Assessment should not happen until students have received instruction on a variety of ways to collect and organize data from a student-generated question. Students should also have had experience creating, reading, and interpreting tables, charts, bar graphs, and line plots.

### Materials Needed

Have paper, clipboards, pencils, markers, and the Table Template available for the following assessment tasks.

\* A photocopiable Table Template can be found at the end of this strand section for your use on page 204.

Lists the manipulatives and templates needed for the particular assessment activity.



\* Reproducible templates can be found at the end of this section.



## Connect each table to its representation on a line plot.

☀	°C	M	T	W	Th	F
		25	24	22	21	19
		17	18	17	20	22
		25	20	18	18	17

☁	°C	M	T	W	Th	F
		17	19	16	16	1
		16	19	23	24	2
		20	23	19	17	2

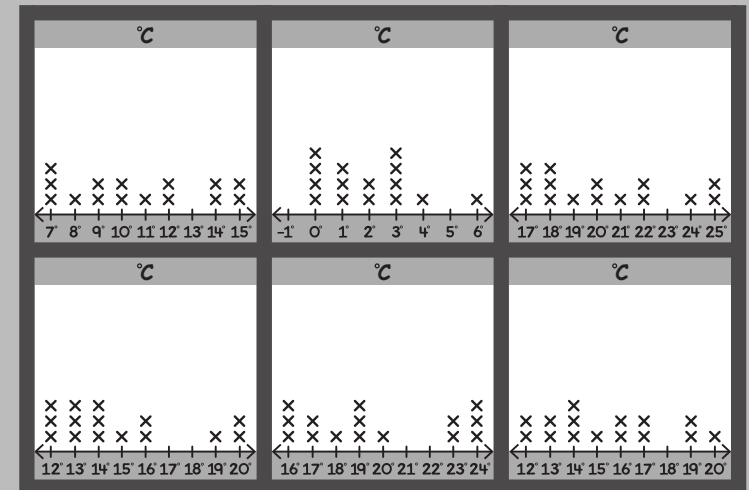
★	°C	M	T	W	Th	F
		7	14	14	15	15

+	°C	M	T	W	Th	F
		6	0	0	2	4
		2	1	1	1	3
		0	0	3	3	3

☔	°C	M	T	W	Th	F
		14	13	14	16	15
		20	20	19	16	12
		12	15	14	12	13

☾	°C	M	T	W	Th	F
		17	17	19	20	13

**Student Resource:**  
A reproduction of the activity in the Student Resource needed for the assessment tasks.



## Question/Task

### Question/Task:

Open questions and tasks allow for a range of appropriate student responses and help reveal student strategies and thinking.

\*Choose which tasks and questions suit your purposes the best. There is no need to do them all.



...k, students need time to survey their  
... You may want to assess more than one  
... ners at the same time.

... have students formulate a simple survey  
... at interests them.

... e you survey the class, make a table or chart  
... their responses. Which categories will you  
... ur chart or table? Is there a way to include  
... answers that you don't expect?"

You may want to offer the *Table Template* as an option for collecting their survey data.

Say: "Now that you have collected and organized your survey data, present your results on a bar graph or line plot. Explain why you chose to present your data the way you did."

Ask: "What is the answer to your question? What else does your data show? What does your data not show?"

## What To Look For

### What to Look For:

Defines a range of appropriate responses and strategies to help you make connections between your observations and curriculum expectations.



- Students formulate a question to answer. Often, they like to find an answer for the whole class; for example, "favourite pet in our class like the best?" Students select a category of likely responses and label the categories on their organizer, e.g., Dog, Cat, Reptile.
- Students may consider using the category "Other" to include responses that they have not anticipated. Students collect data using numbers, tally marks, or another method.
- Students title and label their graph or line plot. Students may use a one-to-one or many-to-one scale on bar graphs.
- Students explain the reasons for their choice: it is easier to make; it is easier to read; it is easier to see the answer, etc.
- Students use evidence from their graph to answer their question. Students may read other category amounts and/or make comparisons between the data of various categories. Students make a true statement about something their data does not show. e.g., "The data does not show if the reptiles our class like best are snakes or lizards."



**STUDENT  
OBSERVATION SHEETS**  
DATA MANAGEMENT AND PROBABILITY

GRADE 3  
ONGOING STUDENT OBSERVATION SHEET  
DATA MANAGEMENT AND PROBABILITY

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Assessment Activity  
Correlation



Data Management and Probability

8

Relate each statement to

**Assessment Focus**

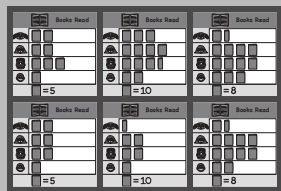
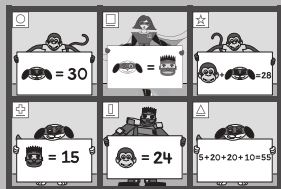
This activity gives students the opportunity to read and interpret data presented in a pictograph. Students interpret a key. They identify a question that the data in the pictograph can answer. Students make a bar graph using values from an addition number sentence.

**Materials Needed**

Have paper, pencils, markers, and the Bar Graph Grid Template available for the following assessment tasks.

\* A photocopyable Bar Graph Grid Template can be found at the end of this strand section for your use on page 205.

8 Relate each statement to its corresponding pictograph.



**Student Knows**

Prior to the assessment list the appropriate knowledge, skills and strategies to look for during the assessment. For guidance with identifying these, use the **Assessment Focus** and **What to Look For** sections from the specific assessment activity you choose. Your curriculum documents are excellent sources as well.



Check the appropriate boxes as you observe and listen to student responses during the assessment.



**Next Steps for Learning**

Prior to the assessment list the same knowledge, skills and strategies here as you listed in the Student Knows column. Check the appropriate boxes as you observe and listen to student responses during the assessment.




**Other Questions I Have About the Student's Learning**

Here are some examples of questions you can ask students to probe for their mathematical thinking and understanding:

"How do you know \_\_\_\_\_? Show me/tell me."

"What is the same and what is different about \_\_\_\_\_ and \_\_\_\_\_?"

"Do you think that...?"

"What if...?"

Your assessment observations may bring up further questions about your student's learning. If so, record them here. You may find some of the open questions provided here helpful as you probe further for mathematical thinking and understanding.



GRADE 3  
ONGOING STUDENT OBSERVATION SHEET  
DATA MANAGEMENT AND PROBABILITY

Name: \_\_\_\_\_

Assessment Activity  
Correlation

Date: \_\_\_\_\_

**11** Connect each table to its representation on a line plot.

**Check Point #2**

The **Check Point** assessment activities in this book have been designed for diagnostic assessment purposes during a cycle of learning.

**Materials Needed**  
Have paper, clipboards, pencils, markers, and the Table Template available for the following assessment tasks.  
\* A photocopyable Table Template can be found at the end of this strand section for your use on page 204.

**11** Connect each table to its representation on a line plot.

**Student Knows**

Prior to the assessment list the appropriate knowledge, skills and strategies to look for during the assessment. For guidance with identifying these, use the **Assessment Focus** and **What to Look For** sections from the specific assessment activity you choose. Your curriculum documents are excellent sources as well.

Check the appropriate boxes as you observe and listen to student responses during the assessment.

**Next Steps for Learning**

Prior to the assessment list the same knowledge, skills and strategies here as you listed in the Student Knows column. Check the appropriate boxes as you observe and listen to student responses during the assessment.

**Other Questions I Have About the Student's Learning**

Here are some examples of questions you can ask students to probe for their mathematical thinking and understanding:

- "How do you know \_\_\_\_\_? Show me/tell me."
- "What is the same and what is different about \_\_\_\_\_ and \_\_\_\_\_?"
- "Do you think that...?"
- "What if...?"

Your assessment observations may bring up further questions about your student's learning. If so, record them here. You may find some of the open questions provided here helpful as you probe further for mathematical thinking and understanding.



**My Question:**

---

**Table Title:**

---


**Some things that the data in the table shows:**

---

---

---

---

---

Reproducible templates provided





# TEACHER NOTES

Additional page  
to enter your notes



**array.** A presentation of objects or squares in rows and columns. Arrays can represent multiplication.

**analogue clock.** A clock that shows the time with the position of its hands.

**associative property.** In addition and multiplication the property that allows the numbers without changing the result. For example,  $(10 + 5) + 1 = 5 + (10 + 1)$  and  $(10 \times 4) \times 5 = 10 \times (4 \times 5)$ .

**attribute.** A trait of a shape, an object, or an event.

**attribute blocks.** Are tools that help students learn. A set of attribute blocks usually includes (rectangle, square, circle, triangle, hexagon); each shape comes in three colours, two sizes, and two thicknesses.

**base ten materials.** Are tools that help students learn about place value and operations. A set of base ten materials includes ones ("units"), tens ("rods"), hundreds ("flats"), and thousands (large cubes).

**equation.** A mathematical statement that has equivalent expressions on either side of an equal sign.

**expanded form.** A representation of a number that shows the value of each digit in the number; for example,  $393 = 3 \times 100 + 9 \times 10 + 3 = 300 + 90 + 3$ .

**capacity.** The maximum quantity a container can hold.

**congruent.** Objects are said to be congruent if they are the same shape and size.

**connecting cubes.** Small plastic manipulative blocks that can attach to each other.

**geoboard.** A square board with a grid of pegs (often a 10 x 10 or 11 x 11 grid). Students use elastics to connect the pegs and make shapes.

**graph.** A drawing that shows the relationship between sets of data.

- **bar graph.** A graph that uses bars, either horizontal or vertical bars to represent the frequency of an event or occurrence.
- **line plot.** A graph where each item in a set of data is represented by a symbol above a number on a number line.
- **pictograph.** A graph that uses pictures and symbols to represent each item in a data set.

**hundreds chart.** A 10 x 10 chart. Each square in the chart contains a whole number in order from 1 to 100.

**many-to-one correspondence.** The concept that one symbol or space can represent a value more than one.

**mode.** The value that occurs most often in a set of data. For example, in a set of data with the values 6, 1, 6, 3, 6, 3, 4, 3, the modes are 3 and 6.

**number cube.** A small plastic or wood cube. Typically, each cube face shows a different numeral or number of dots from 1 to 6.

Glossary of all words  
found in italics in this  
Ongoing Assessment  
Teacher Resource



**number line.** A line that represents a set of numbers.

**octagon.** A polygon with eight sides.

**one-to-one correspondence.** The association of one object to only one number, symbol or picture.

**parallelogram.** A quadrilateral with two pairs of parallel sides; opposite sides are parallel.

**pattern blocks.** Plastic or wooden manipulative sets which include the following: green equilateral triangles; orange squares; tan rhombuses and larger blue rhombuses; red trapezoids; yellow hexagons.

**pentagon.** A five-sided polygon.

**perimeter.** The distance around a shape.

**place value.** The concept that the value of a digit in a number depends on its position or place in the number.

**polygon.** A closed shape of three or more straight sides.

**prism.** A three-dimensional figure with two parallel, congruent bases. Particular prisms are identified by the shape of its bases.

**property (geometric).** A characteristic of a shape or an object that is constant. For example, two geometric properties of triangles are that they all have three straight sides and three vertices.

**quadrilateral.** A four-sided polygon.

**rectangle.** A quadrilateral with four right angles. Opposite sides are equal.

**rhombus.** A parallelogram with equal sides. A square and a diamond are rhombuses.

**square.** A rectangle with four equal sides and four right angles.

**tally chart.** A chart that uses one stroke mark for each item or occurrence counted.

**ten frame.** A 2 x 5 array. Students place counters, stickers or dots to show quantities to 10.

**transformation.** A change on a figure or object which produces the outcome of a different position or orientation. Transformation: reflection (flip), translation (slide), rotation (turn).

**trapezoid.** A quadrilateral having only one pair of parallel sides.

**Venn diagram.** A diagram that uses overlapping circles to show how sets of objects relate to each other; what they have in common and how they differ.

**vertex.** The corner or endpoint where two lines meet.

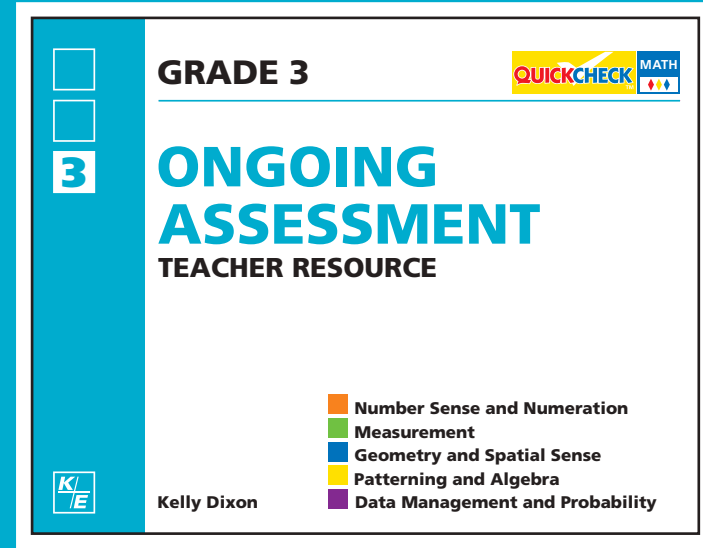
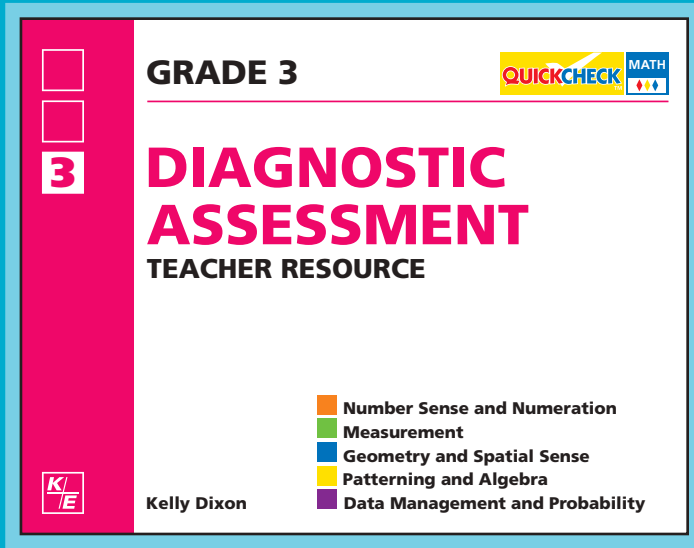
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