

Hockey Time!

Teacher's Guide



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Line Masters

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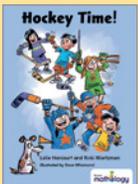
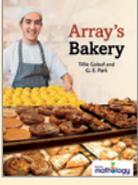
Mathology Little Books

This series recognizes that children’s understanding of maths concepts develops over time, and so the series allows you to choose the book that best matches a child’s or group’s level of mathematical understanding. The books engage children at just the right level in a wide range of mathematical ideas, thinking, and activities in a variety of real world and imaginary contexts.

Hockey Time! engages children in conversations, investigations, and activities that help to develop their understanding of the big maths idea that “Quantities and numbers can be added and subtracted to determine how many or how much.”*

Big Idea: Quantities and numbers can be grouped by units or split into units

(Skip counting, place value, fractions and decimals)

TITLE	KEY MATHS FOCUS	MATHS SKILLS	STRATEGIES	ADDITIONAL FOCUS
	Add and subtract to 10 Compose and decompose 10	Connect addition and subtraction Use +, -, = to symbolize addition and subtraction Identify parts of a whole Model and describe different ways to make numbers Model add-on and take-from 10	Subitize Ten frames Count on and back 1-1 matching	Positional language Increasing/decreasing patterns
	Add and subtract to 20 Compose and Decompose to 20	Model add-to and take-from situations to 20 Use +, -, = to symbolize parts-whole and addition and subtraction Compose and decompose 2-digit numbers	Model Count 3 times Count on and back 1-1 matching	Make graphs from simple responses Order numerals
	Add and subtract to 20 Compare quantities to 20	Model add-to and take-from to 20 Use +, -, = to symbolize parts-whole and addition and subtraction Determine how many more/less	Know 1 or 2 more and 1 or 2 less Compare quantities to 20 by matching or counting	Collect data Describe appropriate events for times of the day Use positional language to describe location
	Add and subtract to 20 Develop addition and subtraction strategies	Connect addition and subtraction Use +, -, = to symbolize addition and subtraction Identify parts of a whole	Count on and back 1-1 matching	Count by 5s Develop financial literacy Recognise 3D shapes Use tallies
	Solve addition/subtraction problems Solve equal grouping/sharing problems	Estimate sums and differences Model and symbolize repeated addition Create and describe equal groups of objects Model and solve equal grouping and sharing problems	Arrays Equal grouping Skip count Repeated addition Estimate Share groups equally Use number sentences	Equality Model and write time Features of 3D objects

* This book can also be used to address the big idea “Numbers are related in many ways.”



Adding and subtracting to 20

- There are 12 hockey sticks on the ice. How can you use number sentences to tell about the hockey sticks?
*(e.g., $4 + 4 + 4 = 12$;
 $8 + 4 = 12$; $4 + 8 = 12$;
 $12 - 8 = 4$; accept any answer the child can justify)*
- There were 12 players on the side of the rink. 1 went to centre ice to sort the sticks. How many players are left on the sidelines? *(11)* What numbers (number sentence) tell about this story?
(e.g., $12 - 1 = 11$, accept any answer the child can justify)

Composing and decomposing to 20

- The player is sliding the hockey sticks toward the nets. How is the group of 12 sticks now in 3 parts? *(4 and 4 and 4)*
- How many players are on the sidelines? *(11)* How do you see the 11? *(6 and 5; 5 and 6)*

WATCH FOR...

- Does the child explain how he/she figured out the solution (e.g., counting, counting back, or knowing the relationship of 1 less than a number)?
- How does the child partition a given quantity into 2 (3) parts and identify the number of objects in each part?

Adding and subtracting to 20

- How many players are on the ice? (12) How many are coming to join them? (2) How many players will be on the ice when these 2 join the game? (14) What number sentence can tell this story? ($12 + 2 = 14$)

Composing and decomposing to 20

- I see 12 children on the ice. 1 is falling and the rest are skating. How do you see the 12 children? Use numbers to tell us. (e.g., *1 falling and 11 skating; 11 skating and 1 falling*)



Game begins.
Fast skating. Quick passes. Hard shots.
Goals scored. Goals saved. Kids cheer.

WATCH FOR...

- Does the child add or subtract accurately?
- How does the child explain how he/she reached the solution?
- How does the child partition a given quantity into 2 parts and identify the number of objects in each part?

Large Group Options

If you read *Hockey Time!* to a large group or whole class, you might project the book to facilitate reading aloud and better engage children in counting and comparing. These activities engage children in exploring and communicating their understanding of addition and subtraction; adjust numbers and choose the activities that best address your children's learning needs. Children can model the stories by acting them out themselves or using counters, projected images, or puppets.

ACTING OUT NUMBER STORIES

ENGAGE

Draw on children's interests or *Hockey Time!* to engage them in acting out and solving continuous additive and subtractive situations. For example, tap and name 7 children to come forward, and then say:

- **(Names) are skating. Show how many with your fingers. (7)** Tap and name 3 more children. **(Names) decide to join them. Show me with your fingers how many children are joining the 7 skaters. (3)** Skaters, freeze. **How many children are skating? (10) How can we check? Double check? Did we add more or take some away?**

Continue with other stories. After each, invite a retelling. Model different ways to record by asking:

- **How could we record what happened so we can remember this part of the story? How could we retell this story using numbers (a number sentence)?** (e.g., 7 and 3 more are 10; $7 + 3 = 10$)

WORK ON IT

Have children face a partner and use their combined fingers to act out and solve addition and subtraction stories such as:

- **Imagine your fingers are (20) children walking to the ball-hockey pad. Let's see them walking. (5) children forgot hockey sticks and run home to get them. How many children are at the hockey pad? (15)**

Allow children time to work together and agree on an answer. Invite children to hold up the number of fingers to show their solution. Ask:

- **How did you figure out (15)? What number sentence tells about this part of the story?** ($20 - 5 = 15$)

Record the number sentence. Continue to tell, discuss, and record stories.

SHARE AND REFLECT

Prompt reflection by asking questions such as:

- **How are some of the number stories alike? Different?**

Tell children to use the recording to retell part of the story. Point to a + or - sign, then ask:

- **When you see this symbol, what do you know about the story?**

Children might play the role of storyteller in acting out some stories.

MATHS FOCUS: add and subtract to 20; model and describe addition and subtraction situations

MATERIALS: *Hockey Time!*; chart paper

At the Hockey Rink

$$7 + 3 = 10$$

$$10 - 5 = 5$$

$$5 + 6 = 11$$

$$11 - 8 = 3$$

$$3 + 6 = 9$$

WATCH FOR...

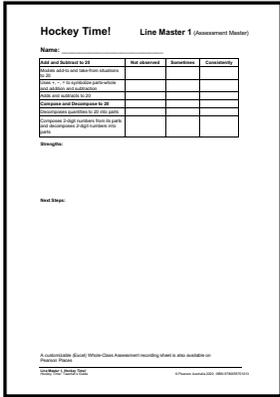
- What language is the child using to describe and model additive and subtractive situations?
- What strategy do children use to find the unknown part? Do they count on/back, or add/remove and count all?
- Do children work effectively and cooperatively to solve the story and to represent the story and solution?
- Would some children benefit from focused experience with addition and/or subtraction to 10?

DIFFERENTIATE: Some children might find it easier to put linking cubes on their fingers to represent the active characters in the story.

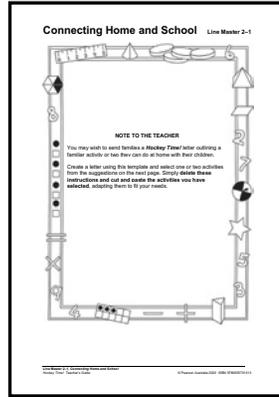
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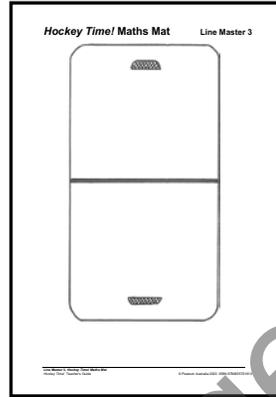
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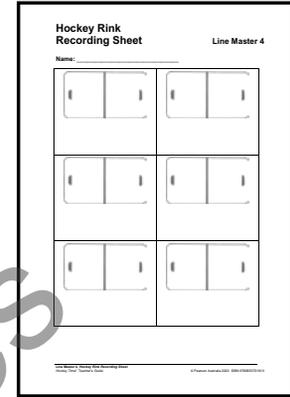
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Assessment Master



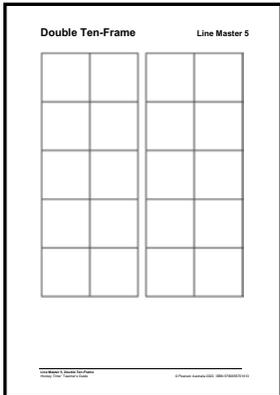
Line Master 2
Connecting Home and School
Letter Template



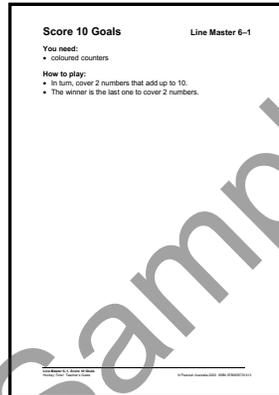
Line Master 3
Hockey Time! Maths Mat



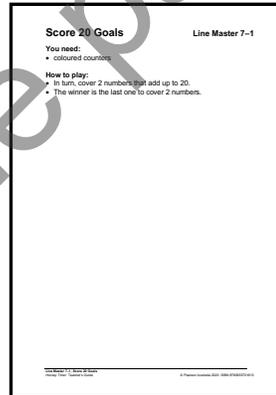
Line Master 4
Hockey Rink Recording Sheet



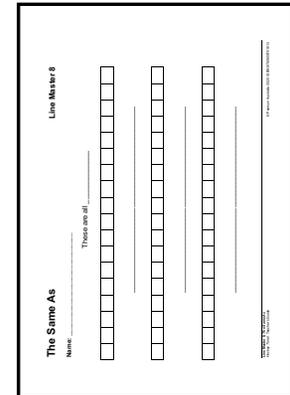
Line Master 5
Double Ten-Frame



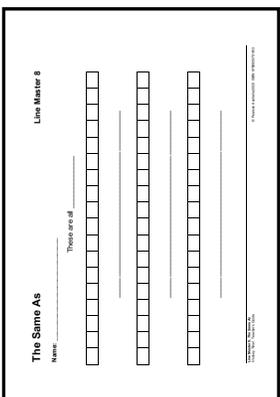
Line Master 6
Score 10 Goals



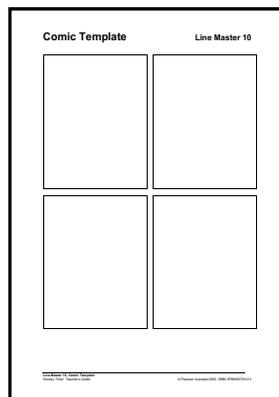
Line Master 7
Score 20 Goals



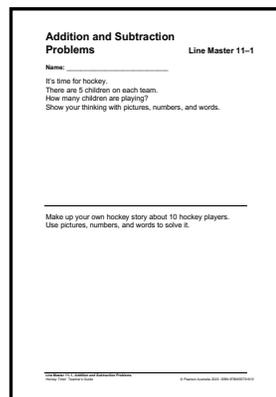
Line Master 8
The Same As



Line Master 9
Booklet Template



Line Master 10
Comic Template



Line Master 11
Addition and Subtraction
Problems