

# GO

# MATHS

## Teacher Sourcebook

### Sample Unit



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## Analysing and Constructing Data Representations

### Content Outcomes

- DS 1.1** Gathers and organises data, displays data using column and picture graphs, and interprets the results
- NS 1.2** Uses a range of mental strategies and informal recording methods for addition and subtraction involving one- and two-digit numbers

### Mathematical Background

In the highly visual and technological world in which students live, graphs and tables are increasingly used to communicate detailed information in a concise way. Throughout *GO Maths*, data displays support the development of other strands of the mathematics curriculum. This unit is a focused study of graphs and tables to analyse their unique features and learn the conventions for representing data. Students construct tally charts and simple column graphs. (*Note:* 'column graphs' consist of vertical columns or horizontal bars. The term 'bar graph' will be used in later stages where a single bar shows how a total is divided into parts.) Students also work with one-to-one picture graphs and a two-way table. Throughout the unit, they engage in questions that bring out the features of the data displays and problem-solving aspects associated with the representations.

### Lesson Overview

- 10.1** Using Tally Marks to Record Data
- 10.2** Working with a Simple Horizontal Column Graph
- 10.3** Reading and Interpreting Data in a Simple Picture Graph
- 10.4** Reading and Representing a Two-Way Table of Data
- 10.5** Interpreting Data in a Graph

**Investigation:** How many hops would you take to measure the length (or width) of your classroom?

### Language

Students will use and develop the following language:  
tally marks, column graph, horizontal, picture graph

Sequence of related units for Stage 1

|               | Stage 1A                          | Stage 1B                      |
|---------------|-----------------------------------|-------------------------------|
| <b>DS 1.1</b> | 8 10 20 32                        | 35 45 64                      |
| <b>NS 1.2</b> | 2 5 10 12 14 15 20 22 23 28 30 31 | 34 37 38 40 46 47 52 55 56 60 |

### Content Indicators

On completion of this unit, the students should be able to

- DS 1.1**
  - A** use tallies to record data in a table
  - B** construct a horizontal column graph
  - C** interpret data represented by tallies in a table
  - D** interpret a picture graph
  - E** interpret a vertical column graph
- NS 1.2**
  - F** add or subtract amounts involving 5, 10, 20 or 50 cents

### Techniques

The following tools can be used to assess the content indicators.

#### 1. Investigation **A B D E**

The Investigation is located after Lesson 5.

#### 2. Written Test **C D**

Allow time for the students to complete the written test for Unit 10. See page 10 of the *GO Check* assessment book. Consider administering the test one or two weeks after completion of the unit.

#### 3. Student Journal Page **E F**

Refer to *GO Maths* student journal page 44.

#### 4. Diagnostic Probe **B**

Give the student a sheet of 2-cm grid paper (use Blackline Master 18) and the following data for students' favourite ice-cream flavours:

**Strawberry 6 Chocolate 9 Banana 5 Mango 4**

Ask the student to construct a horizontal column graph to show the data. If necessary, ask: *Where will you write the flavours? Where will you write the numbers?*

If the student is successful, ask: *Which flavour was the most popular? Which flavour was the least popular? How many students were there altogether?*

*GO Check*, page 10

**UNIT 10** Analysing and Constructing Data Representations

**C** 1. a. Four students measured the length of a building by pacing. Count the tallies and write each number in the table.

|             | Leon | Carla | Mitch | Clare |
|-------------|------|-------|-------|-------|
| Sports room |      |       |       |       |





b. Which student recorded

- the greatest number of paces? \_\_\_\_\_
- the least number of paces? \_\_\_\_\_

c. Why do you think Clare had more tallies than Carla?  
\_\_\_\_\_

**D** 2. Some students recorded how many cubes they could grab in 1 hand.

**Cube Graph**

|       |   |       |
|-------|---|-------|
| Joel  |  | _____ |
| Susie |  | _____ |
| Luke  |  | _____ |
| Amy   |  | _____ |

a. Write the total that each student grabbed.  
\_\_\_\_\_

b. Who grabbed the most cubes? \_\_\_\_\_

c. Who grabbed the fewest cubes? \_\_\_\_\_

d. Which students grabbed the same number of cubes?  
\_\_\_\_\_

10 *GO Check* Stage 1A, Unit 10 **NS 1.1** Date \_\_\_\_\_

## Working Mathematically

The processes related to the working mathematically outcomes are embedded in all *GO Maths* activities. The following pointers should help you assess the students' demonstration of these processes.

|   |   |
|---|---|
| <b>Questioning</b><br>(WMS 1.1)         | <i>Listen</i> to the questions students pose as they interpret data from the graphs and tables.   |
| <b>Applying Strategies</b><br>(WMS 1.2) | <i>Observe</i> the strategies students use to solve questions 5 and 6 on page 44 of the <i>GO Maths</i> student journal.                      |
| <b>Communicating</b><br>(WMS 1.3)       | <i>Check</i> that students use appropriate mathematical language when interpreting graphs and tables.   |
| <b>Reasoning</b><br>(WMS 1.4)           | <i>Note</i> the way students justify their answers to question 7 on page 42 and question 3 on page 43 of the <i>GO Maths</i> student journal. |
| <b>Reflecting</b><br>(WMS 1.5)          | <i>Listen</i> as students describe what they learnt about recording and interpreting data.  |

## Recording

### Content

Record achievement of the content indicators in the box(es) for this unit alongside the relevant outcome(s) in the Progress Record. This can be found on page v of each student's *GO Check* assessment book. Alternatively, enter results into the *GO Chart Electronic Progress Record*.

|        | Stage 1A |    |    |    |    |    |    |    |    |    |    | Stage 1B |    |    |    |    |    |    |    |    |    |    |
|--------|----------|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|----|----|----|----|----|----|
| DS 1.1 | 8        | 10 | 20 | 32 |    |    |    |    |    |    |    | 35       | 45 | 64 |    |    |    |    |    |    |    |    |
| NS 1.2 | 2        | 5  | 10 | 12 | 14 | 15 | 20 | 22 | 23 | 28 | 30 | 31       | 34 | 37 | 38 | 40 | 46 | 47 | 52 | 55 | 56 | 60 |

### Working Mathematically

Record significant observations in the Progress Record on page vi of each student's *GO Check* assessment book. Alternatively, enter more detailed notes into the *GO Chart Electronic Progress Record*.

## Intervention

For students who need extra assistance, revisit the relevant parts of this unit or check for suitable activities from the Related Classroom Resources section in the back of this sourcebook.

## Using Tally Marks to Record Data

### Materials

- *GO Maths* student journal, page 40

### Optional

- 2 cubes **R** for each group of students, with the following written on the faces:
  - Cube 1: 1, 1, 1, 2, 2, 2
  - Cube 2: 2, 3, 4, 5, 6, 7

### Daily Computation Practice

Have the students form small groups. Players take turns to roll both cubes, add the numbers and write the answer. The winner is the first player with two answers the same.

### Consolidation

Have the students work in pairs or small groups to tally the lengths of all the names of the students in the class.

In this lesson, students construct tallies as they collect data. They informally discuss the results.

### Daily Number Sense

On the board draw an 'empty' number track (to at least 80) in a place where it can remain throughout this unit. Write in the multiples of 10 in the correct positions. Ask: *Where will we write the number 34? How do you know?* As the students share their thinking, reinforce the idea that the number is the distance from the start of the number track. Repeat the discussion for the numbers 17 and 64.

### Activity

1. On the board, write the names of the animals shown below.

**kangaroo cat crow dog fish koala parrot galah**

Then invite the students to suggest additional names and write them on the board.

2. Ask: *How can we sort the animal names?* As the students make their suggestions, encourage them to think about the actual names rather than the type of animal or where the animals might live. Ask questions such as: *What is the shortest (longest) name? What is the most common length of an animal name? How can we sort the names by the number of letters?* Through discussion, establish how the students could count the number of letters and tally the results. On the board, draw a table similar to the one below and work with the class to write the possible name lengths.

| Number of letters | Number of names |
|-------------------|-----------------|
| 3 letters         |                 |
| 4 letters         |                 |
| 5 letters         |                 |
|                   |                 |

3. Have volunteers choose a word, count the letters, draw a tally mark on the correct line and cross off the name. Repeat until all of the names have been crossed off. Briefly discuss the results.
4. Have the students work independently to complete page 40 of the *GO Maths* student journal.

### Reflection

1. Discuss the students' answers to page 40 of the *GO Maths* student journal.
2. Now discuss questions such as: *What names cannot be added to the table? How could we change the table so we can include those names? What does the table tell about the children's names? What is the quickest way to work out how many students on the page have a name that is the same length as yours?*

# Working with a Simple Horizontal Column Graph

# 10.2

In this lesson, students build horizontal column graphs using connecting cubes. They then colour parallel number track sections to summarise the data.

## Daily Number Sense

Use the number track from the previous Daily Number Sense discussion. Ask: *What numbers are a little more than 40? How far away is each number from 40? How close is each number to the next greater ten?* Invite individuals to point to a space, give the number and describe their thinking.

## Activity

1. Arrange the students in a circle and have each student select, without looking, one connecting cube and place it on the floor in the middle of the circle. Ask: *Which colour do you think most people chose? How can we find out?* Invite suggestions from the students.
2. Work with the class to join cubes of the same colour to make stacks. Stand the stacks side-by-side and ask: *What do you notice?* Encourage individuals to describe the number of each colour, identify the colour that was chosen most frequently and then make other observations, for example: 'The number of green cubes and blue cubes is the same'.
3. Repeat Steps 1 and 2. This time, draw a grid on the board to resemble parallel number tracks (similar to the one on page 41 of the *GO Maths* student journal). Write the name of a colour at the beginning of each row. Have the students take turns to colour a space in the row that corresponds to their cube. Discuss the results in the same way. Ask the students to suggest a title for the graph and write it above the data.
4. Have the students work independently to complete page 41 of the *GO Maths* student journal.

## Reflection

Discuss the graph on page 41 of the *GO Maths* student journal. Ask questions such as: *What is written at the top (bottom) of the graph? What do the numbers tell? What can you see quickly when you look at the graph?* Encourage responses such as: *I know the number of each flower. The numbers tell how many flowers there are of each type.*

## Materials

- *GO Maths* student journal, page 41
- *GO Figure* computation practice book, page 11
- Connecting cubes

## Optional

- 1 sheet of grid paper for each group of students (use Blackline Master 13)

## Daily Computation Practice

Have the students complete page 11 of the *GO Figure* computation practice book. Ensure they understand the instructions.

## Consolidation

Ask small groups to work separately to repeat the graphing activity. Direct each group to randomly select 25 cubes and then colour squares on the grid paper to show the results. As time allows, have the groups show and compare their results. Encourage the groups to check whether the greatest number for one group was the same for all groups and so on.

# 10.3

## Reading and Interpreting Data in a Simple Picture Graph

### Materials

- *GO Maths* student journal, page 42
- Connecting cubes
- 1 sheet of grid paper for each group of students (use Blackline Master 13)

### Optional

- Cube 1 from 10.1 and a replacement for Cube 2 (showing 4, 5, 6, 7, 8 and 9) for each group of students
- 1 sheet of grid paper for each group of students (use Blackline Master 13)

### Daily Computation Practice

Have the students form small groups. Players take turns to roll both cubes, add the numbers and write the answer. The first player with two answers the same wins the game.

### Consolidation

Have the students work in small groups to repeat the steps to 'grab' and graph a handful of some other type of classroom material (e.g. counters, links or centimetre cubes).

### Extension

Students could repeat the 'grab and graph' activity and then write about the results.

In this lesson, students analyse data in a one-to-one picture graph. Each picture represents one object.

### Daily Number Sense

Use the number track from the previous Daily Number Sense discussion. Ask: *What numbers are a little less than 60? How far away is each number from 60? How close is each number to the ten before 60?* Invite individuals to point to a space, give the number and describe their thinking.

### Activity

1. Show the students the cube container and ask: *How many cubes do you think you can hold in one hand? Do you think everyone can hold the same number of cubes?* Encourage the students to make estimates and then have three students each grab one handful of cubes. Ask: *How can we show the cubes that (Sue, Ben and Anya) grabbed?* Encourage the students to describe methods used in the previous lessons.
2. Have volunteers help construct a tally chart on the board and then fill in spaces for a horizontal column graph that has been drawn on the board. Make sure to write a title and labels on both representations. Ask the students to describe what they think is good about each data display.
3. Ask the students to work in small groups to repeat the 'cube grab' activity and then draw a horizontal column graph of the results. At a later time ask groups to share their graphs.
4. Discuss the graph on page 42 of the *GO Maths* student journal. Ask questions such as: *What does this graph show? How is this graph the same as (different from) the grab graph we made?* Encourage the students to describe how these are pictures of individual objects rather than spaces in a bar. Have the students work independently to complete the page.

### Reflection

1. Discuss the students' answers to page 42 of the *GO Maths* student journal.
2. Ask questions such as: *Where did you look to find out who grabbed the most (fewest)? Did you need to be able to read the numbers? When did the pictures help you answer the questions? When did you need to use the numbers?*



# Reading and Representing a Two-Way Table of Data

## 10.4

In this lesson, students read a table where two headings (above and to the left) must be used to interpret the information.

### Daily Number Sense

Use the number track from the previous Daily Number Sense discussion. Say: *Choose a ten. What numbers are two away from that ten? How do you know?* Invite individuals to select a multiple of 10 and explain how they worked out the other numbers. As the students become confident, ask: *Which pairs of numbers are two away from each other? How do you know?* Have volunteers identify pairs and explain their thinking.

### Activity

1. In this activity, students will pace along three distances and analyse the results. The students will compare the number of paces taken for the different distances and the different numbers for the same distances. Before the lesson begins, decide on the distances to be 'measured'.
2. Explain to the students the task they will complete. Organise them into groups of three or four. On the board, sketch the table below for the students to copy so they can tally the results as the paces are taken. Only one copy is needed for each group.

|           | Group 1 | Group 2 | Group 3 |
|-----------|---------|---------|---------|
| Classroom |         |         |         |
| Shed      |         |         |         |
| Library   |         |         |         |

3. Have the students complete the task. For each distance, one student should tally while another student paces. The other members of the group should check that the paces are natural. They should exchange roles at each location so every student has the opportunity to record the results.
4. When the groups return to the classroom, have them write the number of paces for each location on the board. Once all the measurements have been written, circle the group that took the most paces along each distance.
5. Have the students work independently to complete page 43 of the *GO Maths* student journal.

### Reflection

1. Discuss the students' answers to Questions 1 and 2 on page 43 of the *GO Maths* student journal. Ask questions such as: *Where are the paces that Chris made?* (Under his name.) *What do the numbers along a row tell?* (The paces for the different students.) *Where would you look to find the paces that Emily made at the library?* (Under Emily's name and across from the word 'library'.) *What is in the last space of the middle row?* (Kylie's paces for the shed.)
2. Discuss Question 3. Have one volunteer pace across the front of the room and record the numbers. Now ask a second individual to pace and make sure the number of paces is more. Discuss what the student must do to obtain a greater number.

### Materials

- *GO Maths* student journal, page 43

### Optional

- Cube 1 from 10.1 and Cube 2 from the previous lesson for each group of students
- Connecting cubes

### Daily Computation Practice

Have the students form small groups. Players take turns to roll both cubes, add the numbers and write the answer. The first player with two answers the same wins the game.

### Extension

Ask the students to work in small groups. Each person grabs two handfuls of cubes. They should make a two-way table to show the students and the colours of the cubes.



# 10.5

## Interpreting Data in a Graph

### Materials

- *GO Maths* student journal, page 44
- *GO Figure* computation practice book, page 12
- 1 sticky note for each student
- 50c, 20c, 10c and 5c coins

### Daily Computation Practice

Have the students complete page 12 of the *GO Figure* computation practice book. Ensure they understand the instructions.

### Consolidation

Ask the students to use the graph on page 41 of the *GO Maths* student journal (the flowers in 10.2) to draw pictures and complete sentences such as 'There are \_\_\_ more (roses) than (tulips)'.

### Extension

Encourage students to write stories and draw pictures to add numbers with one addend close to a ten, such as  $19 + 6$ . They should write an addition number sentence to match and then write related subtraction number sentences.

The focus of this lesson is the analysis of data. Students answer a range of questions about information represented in a graph.

### Daily Number Sense

Repeat the previous Daily Number Sense discussion to identify numbers that are two away from each other. Encourage the students to identify pairs of numbers that have different digits in the tens place. (*Note:* This number track will be used again in Unit 11.)

### Activity

1. Provide each student with a sticky note. Across the bottom of the board, write the names of five foods that you think may be possible choices for their favourites. Then say: *Write the name of your favourite on the sticky note.* Students should work independently to write the name of the food and then place the note on the board next to the matching word.
2. Discuss the information that should be used to describe the graph. Ask questions such as: *What title should we write for this graph? Where should we write numbers on the graph? What is along the bottom of the graph? What could we write about these words?*
3. Use the following questions to discuss the data in the graph. Encourage the students to show how they used the graph to help work out the answer.
  - a. *How many more people like (pizza) than like (pies)?*
  - b. *Which food got (8) votes?*
  - c. *What two favourites had a difference of (2) votes?*
  - d. *How many votes were made?*
4. Now invite students to ask their own questions.
5. Have the students work independently to complete Questions 1 to 4 on page 44 of the *GO Maths* student journal.

### Reflection

1. Discuss the students' answers to Questions 1 to 4 on page 44 of the *GO Maths* student journal.
2. Discuss Questions 5 and 6 as a class. Provide coins for the students to explain their thinking.

## Investigation

# How many hops would you take to measure the length (or width) of your classroom?

### Think

- If different students do this measuring task, are they likely to take different numbers of hops? Why?
- How could we organise the information we will gather?
- How could we organise the information once it is collected to make it easier to see?

### Show and Do

Make an overhead transparency of this page. Reveal and read the Investigation question with the students. Encourage them to ask questions to clarify the task. If necessary, discuss the 'Think' prompts.

### Observe

Was the student able to

- count the number of hops taken to measure the length/width of the classroom?
- contribute to the class recording of the data using tally marks in a table?
- construct a graph such as a horizontal column graph to show the length/width of the classroom?

### Reflect

Use the information the students have gathered and presented as graphs to answer the Investigation question. As there will be a range of data (as opposed to one answer), ask the students how the Investigation question could be answered. They might discuss the most frequent number of hops (mode) or pick a number in the middle (median). Ask other questions that can be answered using the graphs the students have created, such as: *Who had the greatest number of hops? How many more hops did (Scott) take than (Mia)? Why were these two numbers of hops so different?*

Student Journal, page 40

10.1

### Collecting and Recording Data — Tallies

Count and write the letters in each name. Draw tallies to complete the table.

Liam Chen Kevin Melanie  
Michael Rosie Anna Meg  
Conrad Olivia  
Miki Lee Todd Alex

| Number of letters | Number of names |
|-------------------|-----------------|
| 3                 |                 |
| 4                 |                 |
| 5                 |                 |
| 6                 |                 |
| 7                 |                 |

40 Draw a tally chart to show the number of vowels in each name above. 60 Maths Stage 1A Unit 10.1

Student Journal, page 41

10.2

### Constructing a Horizontal Column Graph

1. Use colours to show flowers that are the same.

2. Colour the graph to show the number of each.

#### Flower Graph

| Flower Type   | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Yellow flower |   |   |   |   |   |   |   |   |   |   |    |
| Blue flower   |   |   |   |   |   |   |   |   |   |   |    |
| White flower  |   |   |   |   |   |   |   |   |   |   |    |
| Pink flower   |   |   |   |   |   |   |   |   |   |   |    |

41 Write how you could quickly work out the total number of flowers. 60 Maths Stage 1A Unit 10.2

Student Journal, page 42

10.3

### Interpreting a Picture Graph

Some students recorded how many peanuts they could grab in one hand.

#### Grab Graph

|      |  |   |
|------|--|---|
| Ben  |  | 5 |
| Zoe  |  | 4 |
| Anna |  | 7 |
| Chan |  | 6 |
| Mark |  | 5 |

- Write the total on the graph that each student grabbed.
- Who grabbed the most peanuts? **Anna**
- Who grabbed the fewest peanuts? **Zoe**
- Which students grabbed more than 5 peanuts?  
**Anna and Chan**
- Which students grabbed the same number of peanuts?  
**Ben and Mark**
- What was the **total** number that the 5 students grabbed? **27**
- Josh's data is missing from the graph. Write a number of peanuts for Josh that you think is sensible. **5**

42 Write how you could quickly work out the answer to Question 6. 60 Maths Stage 1A Unit 10.3

Student Journal, page 43

10.4

### Interpreting Data in a Table

1. Four students measured the length of buildings by pacing. Count the tallies that each student recorded. Write the numbers in the table.

|           | Chan | Chris | Emily | Kylie |
|-----------|------|-------|-------|-------|
| Classroom | 14   | 12    | 15    | 13    |
| Shed      | 8    | 6     | 9     | 7     |
| Library   | 18   | 15    | 20    | 17    |

2. Write names to complete this table.

|           | Student with greatest number of paces | Student with fewest number of paces |
|-----------|---------------------------------------|-------------------------------------|
| Classroom | Emily                                 | Chris                               |
| Shed      | Emily                                 | Chris                               |
| Library   | Emily                                 | Chris                               |

\* 3. Write why you think Emily took 15 paces to measure the classroom, while Chris only took 12 paces. **Emily takes small steps. Chris takes large steps.**

43 Think about the length of each student's pace. Write their names in order to show the longest to shortest paces. 60 Maths Stage 1A Unit 10.4

\* Answers will vary. This is one example.

Student Journal, page 44

10.5

### Interpreting Data in a Graph

Outcome DS 1.1 NS 1.2

#### Number of Silver Coins in our Wallets

|         |        |         |       |       |
|---------|--------|---------|-------|-------|
| Skylar  | Jacob  |         |       |       |
| Lachlan | Rita   | Yani    | Chloe |       |
| Ella    | Kylie  | Lily    |       |       |
| Hannah  | Gemma  | Sophie  |       |       |
| Chan    | Sean   | Gavin   | Miki  |       |
| Thomas  | Rajita | Ivan    | Anya  | Tony  |
|         | Allan  | Michael | Scott | Sarah |

0 coins   1 coin   2 coins   3 coins   4 coins

- What was the greatest number of silver coins that any student had? **4**
- What number of silver coins did most students have? **2**
- How many students had
  - 1 silver coin? **3** students
  - 3 silver coins? **6** students
- How many students had
  - 4 silver coins? **2** students
  - no silver coins? **6** students
- What is the least amount of money that Rita could have? **10** cents
- Imagine if Tony had 5-cent and 10-cent coins. What are some different totals he could have? Use coins to help.  
**25 cents 30 cents 35 cents**

44 All of Chloe's coins are different. What is the greatest total she could have? **GO Maths Stage 1A Unit 10.5**

GO Figure, page 11

### Home Sweet Home

Help the mouse reach home safely.

- Write all the answers.
- Colour green the tiles that have even answers to show the way.

2 + 1 = **3**   7 + 2 = **9**   1 + 1 = **2**

1 + 4 = **5**   4 + 2 = **6**

1 + 7 = **8**   2 + 5 = **7**   1 + 3 = **4**   9 + 2 = **11**

2 + 2 = **4**   5 + 1 = **6**   6 + 2 = **8**

GO Figure Stage 1A Unit 10   ADDITION (COUNTING ON 1 AND 2) — FACTS   11

GO Figure, page 12

### Get Down

- Write all the answers.
- Find the matching landing pad.
- Colour them the same.

Show these bugs where to land.

2 + 9 = **11**   3 + 2 = **5**   7 + 1 = **8**

8 + 2 = **10**   4 + 2 = **6**

1 + 8 = **9**   2 + 5 = **7**   1 + 3 = **4**

5   7   4   8

11   10   9   6

12   ADDITION (COUNTING ON 1 AND 2) — FACTS   GO Figure Stage 1A Unit 10

GO Check, page 10

### UNIT 10 Analysing and Constructing Data Representations

- Four students measured the length of a building by pacing. Count the tallies and write each number in the table.

|             | Leon          | Carla         | Mitch         | Clare         |
|-------------|---------------|---------------|---------------|---------------|
| Sports room | <br><b>15</b> | <br><b>14</b> | <br><b>19</b> | <br><b>17</b> |

  - Which student recorded
    - the greatest number of paces? **Mitch**
    - the least number of paces? **Carla**
- Why do you think Clare had more tallies than Carla?  
**She took smaller steps**

- Some students recorded how many cubes they could grab in 1 hand.
 

|       | Grab Graph   |
|-------|--------------|
| Joel  | <br><b>6</b> |
| Susie | <br><b>5</b> |
| Luke  | <br><b>7</b> |
| Amy   | <br><b>6</b> |

  - Write the total that each student grabbed.
  - Who grabbed the most cubes? **Luke**
  - Who grabbed the fewest cubes? **Susie**
  - Which students grabbed the same number of cubes?  
**Joel and Amy**

10   GO Check Stage 1A, Unit 10   DS 1.1   Date \_\_\_\_\_

\* Answers will vary. This is one example.

\* Student's shading not shown.


# UNIT 10 Materials and Resources

## 10.1 Using Tally Marks to Record Data

### Materials

- *GO Maths* student journal, page 40

### Optional

- 2 cubes  for each group of students, with the following written on the faces:
  - Cube 1: 1, 1, 1, 2, 2, 2
  - Cube 2: 2, 3, 4, 5, 6, 7

## 10.2 Working with a Simple Horizontal Column Graph

### Materials

- *GO Maths* student journal, page 41
- *GO Figure* computation practice book, page 11
- Connecting cubes

### Optional

- 1 sheet of grid paper for each group of students (use Blackline Master 13)

## 10.3 Reading and Interpreting Data in a Simple Picture Graph

### Materials

- *GO Maths* student journal, page 42
- Connecting cubes
- 1 sheet of grid paper for each group of students (use Blackline Master 13)

### Optional

- Cube 1 from 10.1 and a replacement for Cube 2 (showing 4, 5, 6, 7, 8 and 9) for each group of students
- 1 sheet of grid paper for each group of students (use Blackline Master 13)

## 10.4 Reading and Representing a Two-Way Table of Data

### Materials

- *GO Maths* student journal, page 43

### Optional

- Cube 1 from 10.1 and Cube 2 from the previous lesson for each group of students
- Connecting cubes

## 10.5 Interpreting Data in a Graph

### Materials

- *GO Maths* student journal, page 44
- *GO Figure* computation practice book, page 12
- 1 sticky note for each student
- 50c, 20c, 10c and 5c coins

## Investigation

### Materials

- Overhead transparency of the Investigation question and 'Think' prompts