


INTRODUCTION

Dear Teacher,

Welcome to *AfterMaths*[™]. These reproducible books are designed to engage students in using a variety of maths skills that will be important to them as developmental learners and as thinkers in the years ahead. Students will use critical thinking, problem solving, and computation skills as they complete the activities.

The activities in the *AfterMaths* student book are based on seven concepts. These concepts are numeration, number theory, measurement, geometry, prealgebra, data interpretation, and logical reasoning. A list of activities and the skills covered appears on the following page.

These books may be used to supplement and reinforce classroom lessons. They may be used to extend or enrich daily lessons. Or, they may be used to provide challenges to students who enjoy experimenting with maths. The activities are designed for students to work on their own, in pairs, or in small groups at their own pace.

The activities provide a variety of experiences for students, including writing, computing, experimenting, completing small projects, conducting research, and playing games. An icon  marks challenging creative-thinking items. Students will become aware that mathematics is not reserved just for the classroom; it is a vital part of the world around them.

Try to preview all the activities in the student book before assigning particular activities. The activities can be done in any order that fits your needs. Note that some maths experiments require the use of basic hands-on materials such as calculators, number cubes, playing cards, dominoes, and rulers.

***AfterMaths, Book C* is designed specifically for students in grade three.** However, the activities can be used with advanced mathematics students in grade two, as well as with students who require mathematics skills reinforcement in grade four.

Enjoy the activities. Encourage students to do as many as possible. Galileo once said that mathematics is the alphabet in which the universe was created. So, let's begin to learn that alphabet.

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SKILL BUILDERS I

Something Unusual

Answer the three problems. Look carefully at the digits in each answer as well as the digits in the problem. What do you notice? Hint: Think about the numbers 1–9.

a.
$$\begin{array}{r} 154 \\ + 782 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 215 \\ + 748 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 628 \\ + 317 \\ \hline \end{array}$$

I notice _____.

Roman Ruins

Use toothpicks to make each Roman Numeral sentence. Move one toothpick to make each sentence correct. Use a circle and an arrow to show each move below. Then write the correct sentence.

a. $III - III = VII$ _____

b. $X + I = X$ _____

c. $V - V = XI$ _____

Numbers That Fit

Read each phrase. Try to figure out the number that goes with it. Use the maths clues to check your answers.

a. Around the World in ___ ___ Days

CLUE: 82 rounded to the nearest ten

b. ___ ___ ___ Dalmatians

CLUE: 2 more than 99

c. Sing a song of ___ pence

CLUE: a number less than 7 but more than 5

d. ___ ___ ___ ___ Leagues Under the Sea

CLUE: the number after 19,999

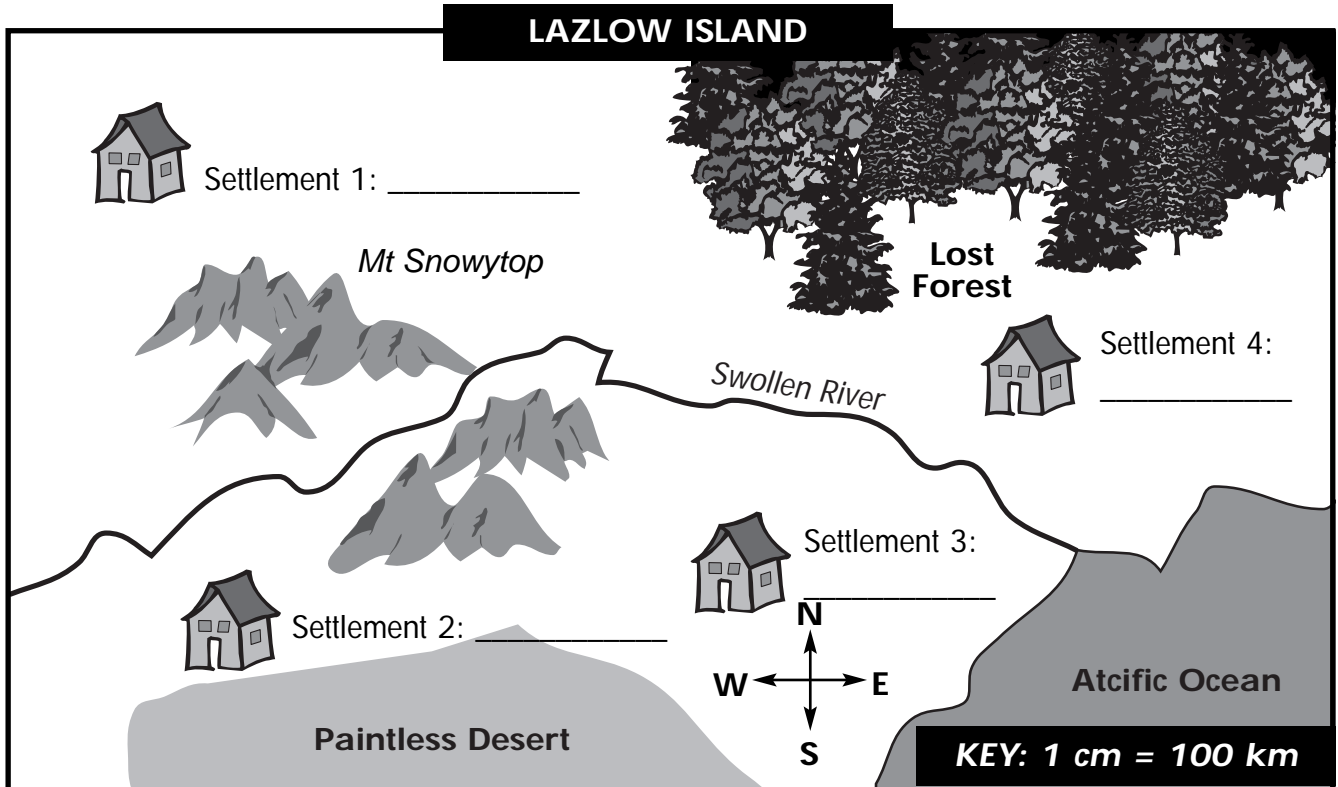
e. The Fantastic ___

CLUE: 1 more than 3

MAPPING IT OUT

Here is a map showing a section of Lazlow Island. At one time, four settlements existed on the island, but no one lives there now. Some say that a treasure was buried under the settlement called Desisto. Scientists are trying to find that treasure, but none of the settlements are labelled on the map.

Read the clues that the scientists have found. Use the clues to label each settlement. Use a ruler to measure length. Note that 1 centimetre is equal to 100 kilometres.



CLUE ONE: The settlement closest to the Atcific Ocean is Windpipe. It is north of the Swollen River.

CLUE TWO: Holbrook is near a river, a desert, and an ocean. It is about 300 kilometres south of the Lost Forest.

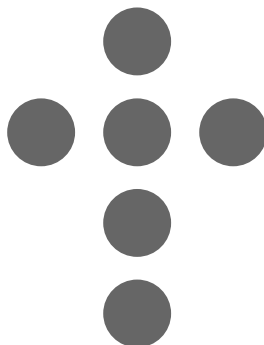
CLUE THREE: The people who lived in Hotspot had wanted to be near the Lost Forest. Instead, they ended up close to the desert. Hotspot is about 100 kilometres south of the Swollen River.

CLUE FOUR: Desisto is about 500 kilometres north of Hotspot.

SPHERE ME

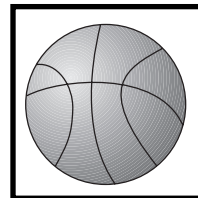
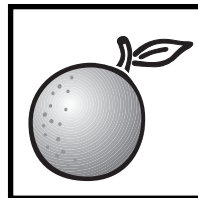
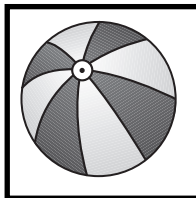
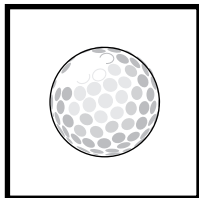
Rows and Rows

Look at the following figure to find a row of three spheres and a row of four spheres. Draw an arrow to show how you would move only one sphere to make three rows of three spheres.



Spheres and Spheres

Name each sphere shown below.



Sphere List

Time yourself for one minute. On another piece of paper, list as many different spherelike objects as you can. Compare your list with the lists of other students.