

Complete  
**Canadian**   
**Curriculum**

*A handy book to guide you through  
key terms and concepts!*



# Smart Guide Book

Math | English | Social Studies | Science

Grade

# 3



Popular Book Company (Canada) Ltd.

Complete  
Canadian   
Curriculum

# Smart Guide Book



Grade  
**3**

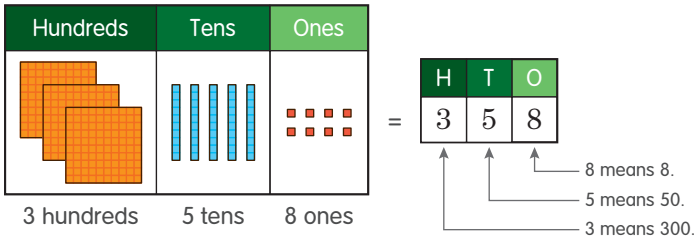
## Contents

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# Number Sense and Numeration

- **Place Value** – the position of a digit that tells its value in a number  
e.g. Place Value Chart



- **Rounding** – changing a number to a simpler number  
e.g. Round **358** to the nearest ten.



358 is rounded to 360.

If the number is in the middle of the number line, round the number to the right end.

### Steps

- 1st Find the two multiples of 10 that 358 falls between.
- 2nd Mark 358. 358 is closer to 360.

- **Addition of 3-digit Numbers with Regrouping**

e.g.  $368 + 279 = \underline{\quad}$

Add the ones.

$$\begin{array}{r} 368 \\ + 279 \\ \hline \end{array}$$

**7**

$8 + 9 = 17$ , so carry the 1 to the tens column.

Add the tens.

$$\begin{array}{r} 368 \\ + 279 \\ \hline \end{array}$$

**47**

$1 + 6 + 7 = 14$ , so carry the 1 to the hundreds column.

Add the hundreds.

$$\begin{array}{r} 368 \\ + 279 \\ \hline \end{array}$$

**647**

$1 + 3 + 2 = 6$

So,  $368 + 279 = \underline{647}$ .

• **Subtraction of 3-digit Numbers with Borrowing**

e.g.  $524 - 196 = \underline{\hspace{2cm}}$

Subtract the ones.

$4 < 6$ ; borrow 1 from the tens column.

$$\begin{array}{r} \overset{1}{5} \overset{14}{2} \overset{4}{4} \\ - 196 \\ \hline \phantom{0}8 \end{array}$$

$14 - 6 = 8$

Subtract the tens.

$$\begin{array}{r} \overset{4}{5} \overset{11}{2} \overset{4}{4} \\ - 196 \\ \hline \phantom{0}28 \end{array}$$

$11 - 9 = 2$

Subtract the hundreds.

$$\begin{array}{r} \overset{4}{5} \overset{2}{2} \overset{4}{4} \\ - 196 \\ \hline 328 \end{array}$$

$4 - 1 = 3$

So,  $524 - 196 = \underline{328}$ .

• **Multiplication** – repeated addition; combining equal groups

e.g.  $2 + 2 + 2 + 2 + 2$   
 $= 5 \text{ groups of } 2$   
 $= 5 \times 2$   
 $= \underline{10}$

We say "5 times 2".  
 "x": multiplication sign

**Vertical Multiplication**

$$\begin{array}{r} 5 \\ \times 2 \\ \hline 10 \end{array}$$

At this level, you are expected to multiply up to  $7 \times 7$ .

• **Division** – equal sharing of a quantity; the opposite of multiplication

e.g.  $13 \div 3 = \underline{\hspace{1cm}}$  ← a division sentence

**Think**: 3 times of what number is closest to 13?

$$\begin{array}{l} 1 \times 3 = 3 \\ 2 \times 3 = 6 \\ 3 \times 3 = 9 \\ 4 \times 3 = 12 \leftarrow \text{closest to } 13 \end{array}$$

So,  $13 \div 3 = \underline{4R1}$ .

**Long Division**

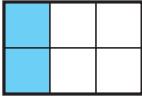
$$\begin{array}{r} 4R1 \\ 3 \overline{)13} \\ \underline{12} \\ 1 \\ \uparrow \\ \text{remainder} \end{array}$$

• **Fractions**

Using fractional names to describe the equal parts of a whole object or a set of objects

e.g.

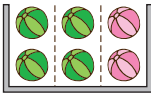
**A Whole Object**



← 6 equal parts;  
2 parts blue

Two sixths is blue.

**A Set of Objects**

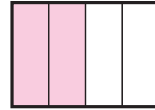


← 3 equal groups;  
2 groups green

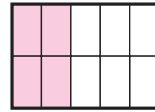
Two thirds are green.

Comparing fractions by drawing pictures

two fourths



four tenths



Two fourths is greater.

• **Money**

Ways to write the amount:



3 dollars 40 cents or \$3.40



Add to find the total.

dollar	cent
2	59
+	4 16
6	75

The total is \$6.75.

Subtract to find the change.

dollar	cent
<del>10</del>	<del>00</del>
-	6 75
3	25

The change is \$3.25.

# Measurement

## • Time

Telling the time in 2 ways

e.g.



25 min past 10 or 10:25

Finding time intervals  
by using subtraction

e.g.  $9:16$   
↓  
 $9:50$

$$\begin{array}{r} 50 \\ - 16 \\ \hline 34 \end{array}$$

The time interval is 34 min.

## • Temperature (measured in degrees Celsius (°C))

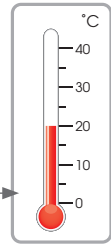
Water Temperature

- Water freezes at  $0^{\circ}\text{C}$ .
- Water boils at  $100^{\circ}\text{C}$ .

Air Temperature

- A warm day is about  $20^{\circ}\text{C}$ .

a thermometer



## • Length

Measuring the length, height, and distance using centimetres (cm), metres (m), and kilometres (km)

e.g. A road is about **10 km** long.

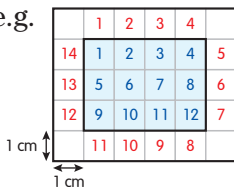
### Units of Length

km ← big unit  
m  
cm ← small unit

## • Perimeter and Area

Perimeter is the distance around a shape. Area is the number of units a shape takes up.

e.g.



Perimeter:

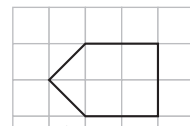
14 cm

Area:

12 □

## Finding Areas

Combine the parts to find the area.



Area: 5 □

Combine  $\triangleleft$  and  $\triangleright$  to get a □.

## Geometry

### • 2-D Shapes

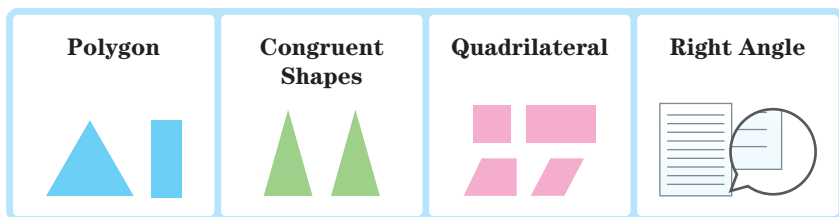
Polygon – a flat shape with three or more straight sides

Congruent Shapes – shapes that have the same shape and size

Quadrilateral – a polygon with four sides

Right Angle – an angle that matches the corner of a sheet of paper

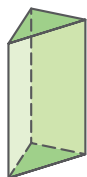
e.g.



### • 3-D Figures

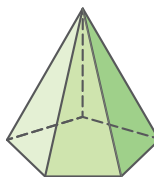
Naming 3-D figures by the shape of their base

e.g.



- has 2 bases
- shape of the base: triangle

**a triangular prism**

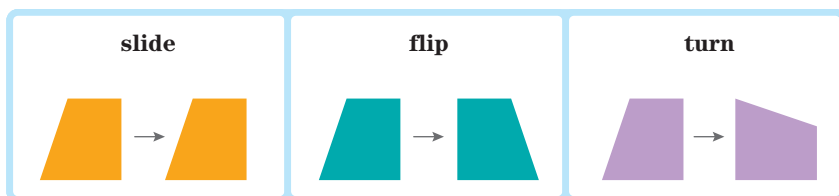


- has 1 base
- shape of the base: pentagon

**a pentagonal pyramid**

### • Transformations

Three Types of Transformations:



## Patterns

- **Multiple** – the product of a given whole number multiplied by any other whole number

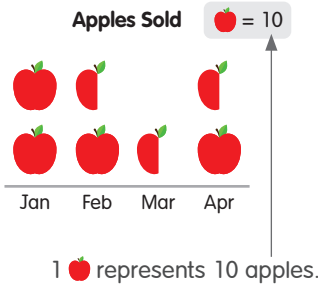
The multiples of a number on a hundreds chart form a pattern.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

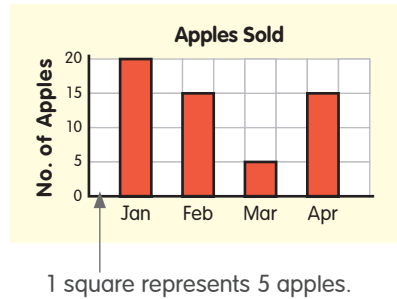
The multiples of 5 run in columns.

## Graphs

### Pictograph



### Bar Graph



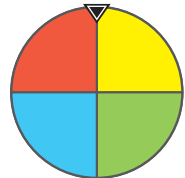
- **Mode** – the value that shows up most often on a graph

The graphs above show that the mode is 15 apples.

## Probability

- **Fairness of a Game** – related to the occurrence of equally likely outcomes

If a spinner is divided into equal parts and none of these parts appears more than once, it is a fair spinner.



If the spinner is spun 40 times, it is predicted that the pointer will land on each section 10 times.



## Phonics

## Silent Consonants

Some consonants like “b”, “c”, “g”, “gh”, “h”, “k”, “l”, “n”, “t”, and “w” are silent in some words.

e.g. clim**b** **h**our cast**l**e

“y”  
as a Vowel

When “y” comes at the end of a word with no vowel or in the middle of a word with no vowel except “e” at the end, it usually sounds like a long “i”.

e.g. cry **y** by**e**

When “y” comes at the end of a word with another vowel in it, it usually sounds like a long “e”.

e.g. mumm**y** monke**y**

## Long Vowel Digraphs

When two letters together form a long vowel sound, it is called a long vowel digraph.

Long vowel digraphs: “ai”, “ay”, “ei”, “ea”, “ee”, “oa”, “ow”, “oo”, “ew”, “au”, and “aw”

e.g. ma**id** mo**on** pa**w**

## Rhyming Words

Rhyming words are words that have the same ending sound.

e.g.



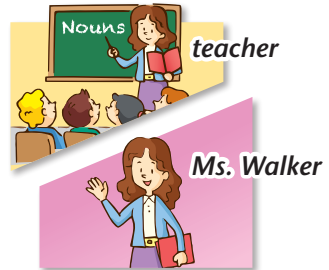
## Grammar

### Nouns

A noun names a person, place, thing, or an animal.

#### Common and Proper Nouns

- A common noun names any person, place, thing, or animal.
- A proper noun names a specific person, place, thing, or animal. It always begins with a capital letter.



#### Plural Nouns

Some nouns have irregular plural forms.

- Nouns ending in “y”: change “y” to “i” and add “es”  
e.g. city → **cities**
- Nouns ending in “f/fe”: change “f/fe” to “v” and add “es”  
e.g. wolf → **wolves**
- Some plural nouns may be spelled the same or completely different from their singular form.  
e.g. deer → deer    person → people

### Sentences

There are four types of sentences.

- **Telling Sentence** – tells about someone or something
- **Asking Sentence** – asks about someone or something
- **Surprising Sentence** – shows a strong feeling
- **Imperative Sentence** – tells someone to do or not to do something

## Subject and Predicate

A sentence has two main parts. The subject tells whom or what the sentence is about. The predicate tells what the subject is or what it does.

e.g. **The children** **laugh at the clown.**  
subject predicate

## Subject-verb Agreement

The subject and verb in a sentence must agree.

### Rules:

- singular subject → singular verb  
e.g. The cat is cute.
- plural subject → plural verb  
e.g. The cats are cute.

## Possessives

A possessive tells who or what possesses a noun or is related to it.

### • Possessive Nouns:

For singular nouns and plural nouns not ending in “s”, add an apostrophe and an “s”.

For plural nouns ending in “s”, add an apostrophe.

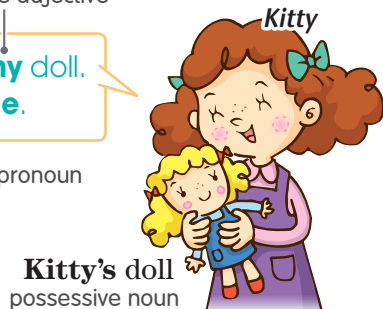
### • Possessive Adjectives:

my, your, his, her, its,  
our, their

### • Possessive Pronouns:

mine, yours, his, hers,  
ours, theirs

possessive adjective  
I love **my** doll.  
It is **mine**.  
possessive pronoun



## Demonstrative Pronouns

A demonstrative pronoun shows or points to someone or something.

- this/these – someone or something near you
- that/those – someone or something far away

## Prepositions

Prepositions can be used with other words to tell where and when something happens.

e.g. I was born in Toronto on July 31, 2007.  
  where  when

## Quotation Marks

Quotation marks are used to contain the exact words of a speaker, and draw attention to a term that is used in a special way.

e.g. The kitten let out a “roar”.



## Prefixes and Suffixes

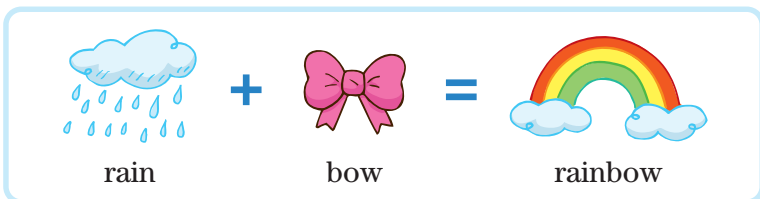
A prefix and a suffix are letters added to a word to change its meaning.

- Prefix – added at the beginning of a word  
e.g. **react**
- Suffix – added at the end of a word  
e.g. **joyful**

## Compound Words

Compound words are two words put together to form a new word with a new meaning.

e.g.



## Communities in Early Canada

The original inhabitants of Canada are the First Peoples (also called the Indigenous Peoples). They had lived on the land we now call Canada for thousands of years before European settlers arrived.

The First Peoples had different responsibilities in the family. The father hunted and fished for food and protected the family. The mother collected and cooked food and made household items. And the children helped with everyday chores. The girls helped the mother and the boys helped the father. But they all shared some responsibilities to contribute to their families.



### Food



### Shelter



### Tools



## Living in Canada



Canada is a large and diverse land. It has many landforms. There are lakes, marshes, forests, hills, and flat plains. Canada is home to many wild animals. It also has abundant natural resources like gold and silver. Canada's land is used for many purposes: commerce, agriculture, housing, farming, industry, transportation, and recreation.

There are many things to do in Canada: camping, hiking, fishing, skiing, going to parks, etc.

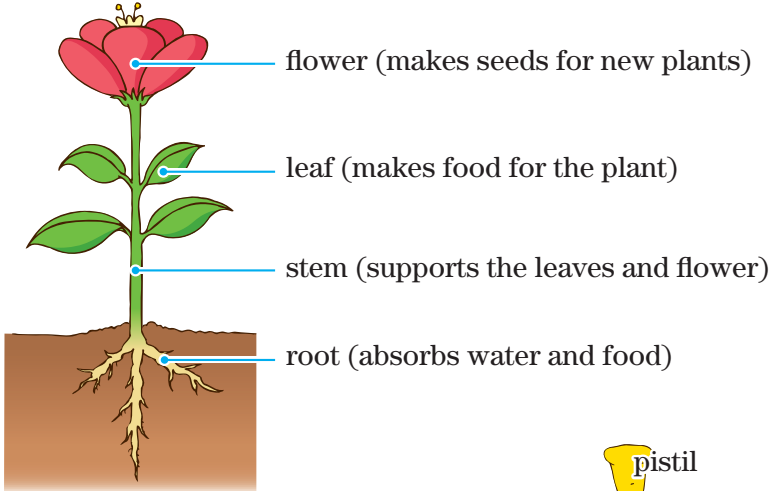
People live all over the country. However, most people live in Southern Ontario, and Toronto, the capital city of Ontario, is the most populated city in Canada.



## Plants

Plants are very important. We use them for food, clothing, medicine, and furniture. We also need them for oxygen.

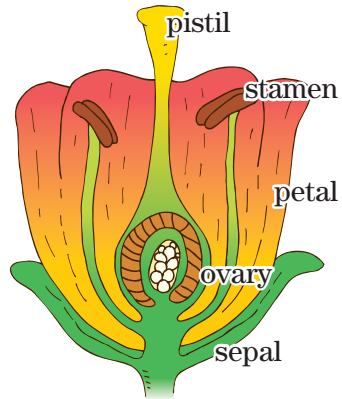
Plants have different parts that serve different purposes.



In order for new plants to grow, pollination needs to occur.

### Pollination:

when the pollen from one plant's stamen reaches the pistil of another

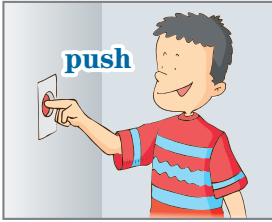


Plants can be pollinated by animals and the wind!



## Forces and Movement

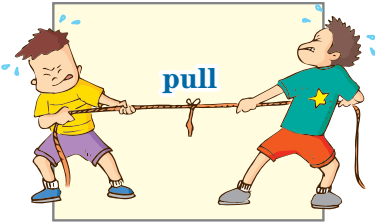
A force can be a push or a pull that happens between objects in contact or objects at a distance.



Gravity is a pulling force.



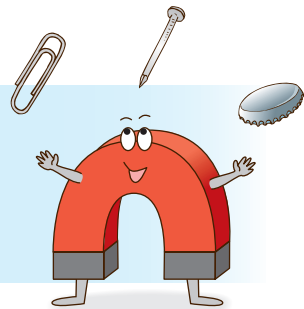
There's no gravity in space!



**Friction** is a force produced when two objects rub against each other. Its direction is opposite to the direction of movement.



A magnet is a piece of iron that has a special force: magnetism. **Magnetism** is a force that can push or pull other magnetic objects.



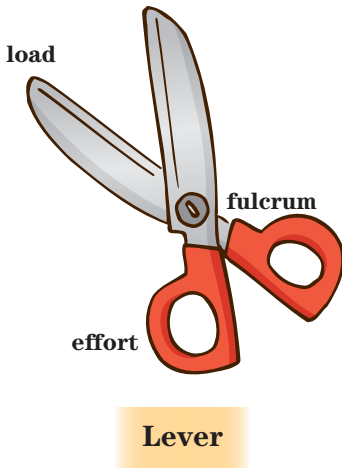
## Stability

Stable structures are those that are not likely to fall down, overturn, or break down when reasonable forces are applied to them.



## Lever

Levers are simple machines that can make movement and forces either larger or smaller.



**Fulcrum:** the pivot point

**Effort:** the force that is put into the lever

**Load:** the force that comes out of the machine

Changing the order of the fulcrum, effort force, and load force results in different machines that do different things.

## Soil

Soil is the top layer of much of the Earth's land surface. It is a mixture of broken rocks, humus (dead plants and animal waste), air, and water.

### Soil Types

clay	silt
sand	loam






Earthworms are important to soil. They mix up layers of soil, leave tunnels for air and water, and decompose dead leaves and animal waste, leaving nutrients for plants.

Soil is also home to many animals. The marmot, millipede, snail, ant, beetle, centipede, and cricket all live in soil.







## **I have learned concepts in these subject areas:**



### **Math**

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





### **English**

-  Grammar
-  Oral Communication
-  Reading
-  Writing

### **Social Studies**

-  Heritage and Identity
-  People and Environments

### **Science**

-  Life Systems
-  Structures and Mechanisms
-  Matter and Energy
-  Earth and Space Systems