

Strategies for Numbers 2 (Adding and Subtracting)

QLWG Essential Life Skills Unit 16



QLWG Skills for Life

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QLWG Skills for Life Series

THEMATIC UNITS

Competency-based learning meets the needs of all learners. It is important to keep in mind, however, that all learners are different. In order to address the needs and interests of all learners, units have been divided by *Essential Life Skills* and *Individual Life Skills*.

Essential Life Skills are important for everyone, while Individual Life Skills address the needs and interests of different learners. Once learners have completed the "Essential" units, they may choose a unit that is applicable to their interests and lifestyle.

Essential Life Skills Units	Individual Life Skills Units
1. Orientation Unit	18. My Hobbies and Leisure Time
2. Around the Home	19. Employment Skills
3. My Community	20. On the Job
4. Being a Canadian Citizen	21. My Family
5. What's for Dinner?	22. Entertainment (music and film)
6. Managing My Money	23. Fitness and the Great Outdoors
7. Smart Shopping	24. Getting Around (travel and transportation)
8. My Health	25. Career Exploration
9. All About Me	26. Getting My Driver's Licence
10. Communication Skills	27. Learning in Quebec
11. Living in Quebec	28. Living Green
12. Strategies for Reading	29. Handling Legal Concerns
13. Strategies for Writing	30. The Retirement Years
14. Strategies for Grammar	
15. Strategies for Numbers 1: Understanding Numbers	
16. Strategies for Numbers 2:Adding & Subtracting	
17. Strategies for Numbers 3: Multiplying, Dividing & Fractions	

QLWG Skills for Life Series

Strategies for Numbers 2: Adding and Subtracting Unit # 16

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WELCOME LEARNER!

This workbook is meant to help you develop important life skills. As you work on different activities, try to see the purpose in what you are doing, stay motivated and enjoy!

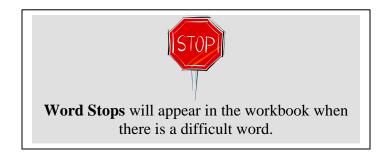
Things to Look for:

Checkpoints

You will finish every unit of study with a Checkpoint (in blue). Once you have completed the Checkpoint questionnaire, you will send this document to your distance education tutor. Make sure you fill in the **date**, **your name**, **your phone number** and the **distance education tutor's name** on the cover of this document.

Word Stops

Word Stops will explain more difficult words. Look for words in bold print (example: **bold**). A **Word Stop** will follow to tell you what that word means.



If you do not understand, follow these steps:

- 1. Look at titles and pictures. Do they tell you anything?
- 2. Try to find the general meaning.
- 3. Look for Word Stops.
- 4. Use a dictionary.
- 5. If you still do not understand, contact your distance education tutor.

Before you contact your distance education tutor:

- 1. Prepare your questions. What do you want to ask?
- 2. Give the page number and section title to your tutor so they know where you are.



"Act the part; walk and talk exactly as if you were already the person you want to be."

~Brian Tracy

Strategies for Numbers 2: Adding and Subtracting

"The value of a problem is not so much coming up with the answer as in the ideas and attempted ideas it forces on the would be solver." ~I.N. Herstein



Introduction:

In this unit, you will develop strategies to help you handle everyday Math such as adding, subtracting, counting money and estimating.

In this unit, you will:

- learn about adding.
- practice adding.
- learn about subtraction.
- practice subtracting.
- compare money values.
- practice estimating.

What I Already Know

Explain what you know about adding and subtracting. This list will help you to keep track of what you learn.

Adding

Adding is used to see how much you have of something. The plus symbol (+) is used when adding.

EXAMPLE:

Farmer Ella had twelve (12) chicks to start.



Another fourteen (14) chicks were hatched yesterday.



How many chicks does Farmer Ella have all together?

12 → added +**14** → added

26 ⇒sum

> She has 26 chicks.

ADDING one-place numbers:

Knowing how to add one-place numbers will help you to add larger numbers. Review the table below to make sure you know how to add one-place numbers.

0+0=0	O+1=1	0+2=2	0+3=3	0+4=4	0+5=5	0+6=6	0+7=7	O+8=8	0+9=9
1+0=1	1+1=2	1+2=3	1+3=4	1+4=5	1+5=6	1+6=7	1+7=8	1+8=9	1+9=10
2+0=2	2+1=3	2+2=4	2+3=5	2+4=6	2+5=7	2+6=8	2+7=9	2+8=10	2+9=11
3+0=3	3+1=4	3+2=5	3+3=6	3+4=7	3+5=8	3+6=9	3+7=10	3+8=11	3+9=12
4+0=4	4+1=5	4+2=6	4+3=7	4+4=8	4+5=9	4+6=10	4+7=11	4+8=12	4+9=13
5+0=5	5+1=6	5+2=7	5+3=8	5+4=9	5+5=10	5+6=11	5+7=12	5+8=13	5+9=14
6+0=6	6+1=7	6+2=8	6+3=9	6+4=10	6+5=11	6+6=12	6+7=13	6+8=14	6+9=15
7+0=7	7+1=8	7+2=9	7+3=10	7+4=11	7+5=12	7+6=13	7+7=14	7+8=15	7+9=16
8+O=8	8+1=9	8+2=10	8+3=11	8+4=12	8+5=13	8+6=14	8+7=15	8+8=16	8+9=17
9+0=9	9+1=10	9+2=11	9+3=12	9+4=13	9+5=14	9+6=15	9+7=16	9+8=17	9+9=18

ACTIVITY: Practice adding **one-place** numbers. Once you have completed the activity, check the answers provided in the ANSWER KEY at the back of this unit.

c)
$$7 + 8 =$$

d)
$$9 + 3 =$$

g)
$$7 + 7 =$$

k)
$$3 + 2 =$$



"If people do not believe that mathematics is simple, it is only because they do not realize how complicated life is." "John Louis von Neumann

How to Add Two-Place Numbers:

1. Place one number above the other. Make sure the tens' place and ones' place are lined up. Draw a line under the bottom number.

```
18
+<u>15</u>
```

Add the two ones' place numbers together:

```
1 (added)

18
+15
3
```

Now, add the numbers in the tens' place column together. Add the amount (1) that was carried from the ones' place column.

```
1 (added)

18
+15
33
```

The sum is 33.



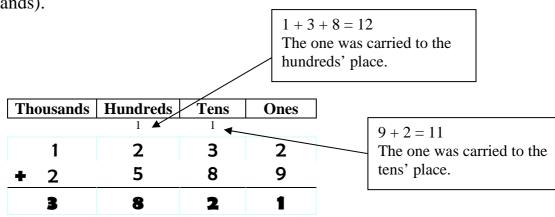
ACTIVITY: Practice adding **two-place** numbers. Once you have completed the activity, check the answers provided in the ANSWER KEY at the back of this unit.

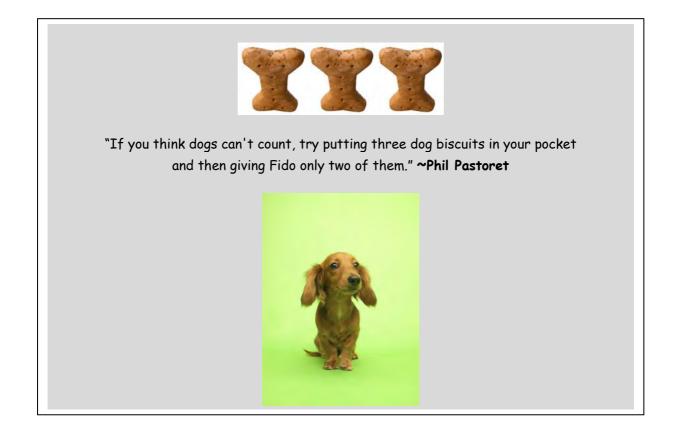
Adding Bigger Numbers:

When you add numbers that have three places or more, you must pay attention to groupings. If a number does not fit into its place, you must carry it over to a larger group.

EXAMPLE:

Begin by adding the number in each place (ones, tens, hundreds and then thousands).





ACTIVITY: Practice adding bigger numbers. Once you have completed the activity, check the answers provided in the ANSWER KEY at the back of this unit.



Complete the questionnaire to keep track of your learning.

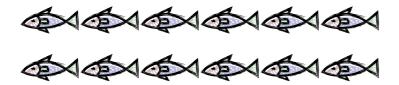
1.	Have you completed all reading and activities to this point? (<i>Circle your answer</i> .)
	Yes No
2.	If you answered "No", explain what you did not complete and why.
3.	What was easy and why?
_	
4.	What was difficult and why?
5.	General comments. (Do you have any comments on the work that you have done?)

Subtracting Whole Numbers

Subtraction means taking objects away from a group.

EXAMPLE:

Shelly went fishing. She caught twelve (12) trout.



For supper, Shelly and her husband ate six (6) of the trout that Shelly had caught.



Subtractions can be written in two ways:

$$\begin{array}{c}
23 \\
-3 \\
\hline
20
\end{array}$$
OR
$$23 - 3 = 20.$$

➤ The difference is always going to be less than what you started with unless you are subtracting zero.

$$20 - 0 = 20$$

ACTIVITY: Practice subtracting one-place numbers. Once you have completed the activity, check the answers provided in the ANSWER KEY at the back of this unit.

a)
$$9 - 4 =$$

b)
$$7 - 3 =$$

c)
$$8 - 5 =$$

d)
$$8 - 4 =$$

e)
$$5 - 2 =$$

f)
$$7 - 3 =$$

g)
$$7 - 4 =$$

h)
$$8 - 1 =$$

i)
$$8 - 6 =$$

$$\mathbf{j}) 9 - 8 =$$

k)
$$7 - 7 =$$

0)

1)
$$6 - 5 =$$

8 <u>-0</u>

3 <u>-1</u> 9

4 <u>- 2</u>

6 <u>-5</u> r)

n)

7 <u>-2</u> s)

5

- 8

t)

p)

9 - 4

u)

7 <u>-0</u> v)

4 <u>-2</u> w)

6

x)

7 <u>- 6</u>

How to Subtract Larger Numbers:

Every number has a different place and value. Always subtract from the same place. For example, subtract ones, tens or hundreds from the same column. Borrow from a larger amount if you do not have enough.

Subtracting Tens:

Place one number above the other so the tens' place and ones' place digits are lined up.

68

43

25

If you have a number in a column that is not large enough, you must borrow from a higher column.

EXAMPLE:

94 > 89 **→** 94 is greater than 89

Ones Column:

$4 < 9 \Rightarrow 4$ is less than nine so I need to borrow from the tens column.

Tens	Ones		Borrow a ten from the
8	14		tens column and add it to
9	4 /		the ones column.
8	9	_	
	5		

Subtracting Hundreds:

Subtracting hundreds follows the same pattern as subtracting tens.

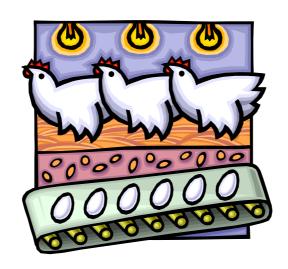


ACTIVITY: Practice subtracting larger numbers. Once you have completed the activity, you can check the answers provided in the ANSWER KEY at the back of this unit.

SUBTRACTION WORD PROBLEMS

ACTIVITY: Once you have completed the word problems, check the answers provided in the ANSWER KEY at the back of this unit.

1.	You owe your best friend twenty-three dollars. You have forty-eight dollars in your wallet. How much will you have left once you have paid back the money?
2.	Farmer Ella's chickens have laid one hundred twenty eggs so far this spring. One hundred eighteen of those eggs have been sold at the market. How many eggs are there left?



Money Math

Money is something that probably affects your everyday life. Much of what we do in life involves money. This is why you should know how to add, subtract and estimate dollar amounts.

There are two ways to write amounts of money:

- Use a cent ¢ or dollar \$ sign.
- Use a dollar sign and a decimal point.

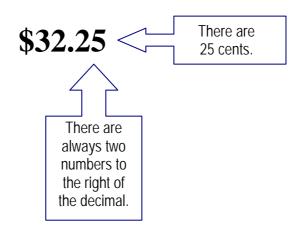
Often money is written with a decimal. Dollars are to the left of the decimal point and cents are to the right.



There are 100 cents in a dollar.

The decimal point is used to show how many cents there are.

EXAMPLE:





1. **decimal** (des-uh-mul): a dot that divides whole numbers. With money, it indicates that there is not a full dollar amount.

Adding and Subtracting Money:

Subtracting and adding money with decimals is just like adding and subtracting with other numbers. But don't forget to put the decimal in the right place and use the dollar sign.

HINT: Always line up the decimal points when adding or subtracting numbers with decimals.

Follow the same rules for adding and subtracting. Line each number up.

7	3	0.	0	Add the top and
+2	2	.9	9	middle rows.
9	5	.9	9	



"Inflation hasn't ruined everything.

A dime can still be used as a screwdriver."

~Quoted in P.S. I Love You, compiled by

H. Jackson Brown, Jr.

Canadian Money

Money	Name	How to write amount
TS NAS	PENNY	one cent1¢\$0.01
Carrier Constitution of the Constitution of th	NICKLE	five cents5¢\$0.05
	DIME	ten cents10¢\$0.10
0 k 25 W	QUARTER	twenty-five cents25¢\$0.25
	LOONIE	one dollar\$1.00
C N X D N X	TOONIE	two dollars\$2.00
5 III HOALOGET HOALOGET 5	FIVE DOLLAR BILL	five dollars\$5.00
10 GANADA III FETOZSOZEO I FETOZSOZEO 10	TEN DOLLAR BILL	ten dollars\$10.00

ACTIVITY: Practice using your Math skills to complete the following exercises. Once you have completed the activity, check the answers provided in the ANSWER KEY at the back of this unit.

1. Comparing Values:

Indicate which amount is greater or lesser (use the symbol > OR <).

a) \$1.25 < \$1.26

b) \$42.50 \$45.20

c) \$13.75 \$15.29

d) \$32.67 \$30.98

e) \$34.76 _____ \$34.75

f) \$47.60____\$45.90

g) \$895.05 _____\$897.01

h) \$142.00____\$141.99

i) \$875.05 \$877.01

j) \$672.78____\$671.00

k) \$565.09 ____\$560.09

I) \$732.02____\$741.01



2. Round the following dollar amounts to the closest one, ten or hundred (depending on the amount):

a) \$1.25 **\$1.00**

b) \$2.78

c) \$3.40

d) \$12.12

e) \$56.78

f) \$12.00

g) \$863.00 _____

h) \$899.99

i) \$61.78

j) \$45.97

k) \$23.02

I) \$312.10

m) \$856.00 _____

n) \$545.99

3. Practice adding the dollar amounts:

a) \$2.45 +\$0.89

b) \$ 8.88 +\$10.89 \$6.75 +\$1.80 **d)** \$9.99 +\$1.50

\$5.93 +\$1.94 **f**) \$99.99 +\$15.00 **g)** \$76.90 +\$18.10 **h**) \$0.99 +\$2.39

\$6.12 +\$1.79 **j**) \$58.48 +\$20.13

k) \$49.75 +\$21.50 1) \$78.99 +\$32.30

m) \$15.94 +\$11.87 **n)** \$45.99 +\$16.01

\$78.21 +\$12.12

p) \$20.99 +\$32.74 4. Practice subtracting the dollar amounts:



Always calculate how much change you should get back when you buy something.

Estimating Sums

You can estimate the sum of two numbers by rounding each number and then adding the rounded numbers. You won't get the exact answer but it will give you a good **estimate** of the amount.

How to estimate a sum:

- 1. Round each number that will be added.
- 2. Add the rounded numbers together.

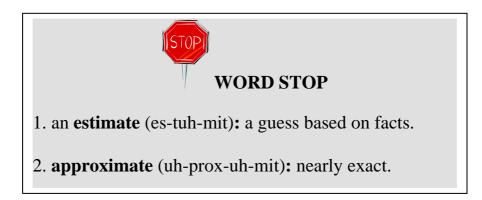
Estimating is useful for:

- checking to see if you have enough money to buy what you want.
- getting a rough idea of the correct answer to a problem.

EXAMPLE:

David collects stamps. Last year he collected eighty-nine (89) new stamps. This year, he has collected forty-three (43) new stamps. About how many stamps has David collected in the past two years?

Estimating is a quick way to get **approximate** amounts.



- **ACTIVITY:** Practice estimating. Once you have completed the activity, check the answers provided in the ANSWER KEY at the back of this unit.
- 1. You are at a *Crazy Mo's Food Emporium* for lunch. You have \$15.00. Look at the menu. Estimate amounts to see if you have will have enough for a pita, salad and tea. (Don't worry about taxes; they are included in the price. (3)

Crazy Mo's
Lunch Menu

Salad......\$5.25
Soup.....\$4.75
Pita.....\$4.80
Sandwich....\$3.60
Fries.....\$4.25

Tea.....\$1.30
Coffee....\$1.30
Taxes included in prices.

What is the estimated cost for a pita, salad and tea?

Do you have enough? Explain.

- 2. Round each number. Then estimate the sum.
- 16 + 9
- **b**)

 18
 +11
- 88 +18
- **d**)
 72
 +23
- e) f) g) h)

 87 67 54 79

 + 7 +32 +12 +67

.../

i)

j)

k)

l)

m)

n)

0)

p)

q)

r)

s)

t)

3. Now, round each amount to the closest dollar and estimate the sum.

a)

b)

c)

d)

e)

f)

g)

h)

i)

j)

k)

l)

What I Know Now



Go back to the beginning of this unit and look at the list of things you knew before you started. Describe what you know now. What have you learned?

Strategies for Numbers:

Adding and Subtracting

Learning Checklist

Check off each item on this list that you can do as "ACHIEVED". If you feel that you have to improve on something, check "IN PROGRESS". Review your Learning Checklist with your tutor.

COMPETENCIES What I can do.	IN PROGRESS	ACHIEVED
1. I can say what adding is.		
2. I can say what a sum is.		
3. I can add one-place numbers.		
4. I can add two-place numbers		
5. I can add three-place numbers		
6. I can subtract one-place numbers.		
7. I can subtract two-place numbers.		
8. I can subtract 3-place numbers.		
9. I can identify different Canadian money.		
10. I can compare values (amounts).		
11. I can round dollar amounts.		
12. I can estimate sums.		
13. I can round numbers and then estimate sums.		
14. I can explain when rounding is useful.		

Strategies for Numbers 2

ANSWER KEY

Strategies for Numbers 2: Adding and Subtracting

Page	Activity	Answer	Page	Activity	Answer	Page	Activity	Answer
4	a)	6	6	a)	31	8	a)	5456
	b)	12		b)	47		b)	248
	c)	15		c)	36		c)	614
	d)	12		d)	112		d)	4801
	e)	8		e)	94		e)	8309
	f)	12		f)	83		f)	8086
	g) h)	14		g) h)	129		g)	9776
	h)	13		h)	155		h)	10478
	i)	16		i)	81		i)	674
	j)	8		j)	96		j)	1062
	k)	5		k)	86		k)	2103
	1)	14		1)	93		1)	3801
	m)	11		m)	100		m)	5666
	n)	17		n)	35		n)	9368
	0)	6		0)	93		0)	7014
	p)	12		p)	100		p)	7040
	q)	4		q)	94		q)	77476
	r)	10		r)	68		r)	14006
	s)	9		s)	102		s)	15409
	t)	12		t)	98		t)	11377
	u)	11		u)	121		u)	15674
				v)	77		v)	13062
				w)	158		w)	13077
				x)	134		x)	18799

Page	Activity	Answer	Page	Activity	Answer
11	a)	5	13	a)	48
	b)	4		b)	23
	c)	3		c)	18
	d)	4		d)	26
	e)	3		e)	20
	f)	4		f)	3
	g)	3		g)	5
	h)	7		h)	51
	i)	2		i)	48
	j)	1		j)	20
	k)	0		k)	9
	1)	1		1)	22
	m)	8		m)	48
	n)	2		n)	100
	o)	1		o)	56
	p)	2		p)	126
	q)	1		q)	420
	r)	5		r)	443
	s)	2		s)	188
	t)	5		t)	0
	u)	7		u)	448
	v)	2		v)	420
	w)	3		w)	289
	x)	1		x)	409

Page	Activity	Answer
14	1.	\$48.00 - \$23.00 =\$25.00 (I will have \$25.00 left.)
	2.	120-118 = 2 (Farmer Ella will have two eggs left.)
18	1. b)	\$42.50 < \$45.20
	c)	\$13.75 < \$15.29
	d)	\$32.67 > \$30.98
	e)	\$34.76 > \$34.75
	f)	\$47.60 > \$45.90
	g)	\$895.05 < \$897.01
	h)	\$142.00 > \$141.99
	i)	\$875.05 < \$877.01
	j)	\$672.78 > \$671.00
	k)	\$565.09 > \$560.09
	1)	\$ 732.02 < \$741.01

Page	Activity	Answer	Page	Activity	Answer
19	2. b)	\$3.00	20	4. a)	\$7.02
	c)	\$3.00		b)	\$1.10
	d)	\$12.00		c)	\$7.90
	e)	\$57.00		d)	\$14.17
	f)	\$12.00		e)	\$13.99
	g)	\$860.00 (900.00)		f)	\$84.99
	h)	\$900.00		g)	\$58.80
	i)	\$60.00		h)	\$20.83
	j)	\$50.00		i)	\$36.91
	k)	\$20.00		j)	\$6.10
	1)	\$300.00		k)	\$46.90
	m)	\$900.00		1)	\$43.50
	n)	\$500.00		m)	\$22.01
				n)	\$20.33
	3. a)	\$3.34		0)	\$4.01
	b)	\$19.77		p)	\$46.75
	c)	\$8.55		q)	\$47.27
	d)	\$11.49		r)	\$1.10
	e)	\$7.87		s)	\$17.78
	f)	\$114.99		t)	\$23.77
	g)	\$95.00		u)	\$4.00
	h)	\$3.38		v)	\$41.84
	i)	\$7.91		w)	\$38.94
	j)	\$78.61		x)	\$14.54
	k)	\$71.25			
	1)	\$111.29			
	m)	\$27.81			
	n)	\$62.00			
	0)	\$90.33			
	p)	\$53.73			

Page	Activity	Answer
22	1.	\$5.00 (pita) + \$5.00 (salad) + \$1.00 (tea) = \$11.00
		Yes, I have enough. The estimated sum was \$11.00.
	2. a)	(20 + 10) = 30
	b)	(20 + 10) = 30
	c)	(90 + 20) = 110
	d)	(70 + 20) = 90
	e)	(90 + 10) = 100
	f)	(70 + 30) = 100
	g)	(50 + 10) = 60
_	h)	(80 + 70) = 150
Page	Activity	Answer
23	i)	(100 + 20) = 120
	j)	(70 + 30) = 100
	k)	(50 + 90) = 140
	1)	(70 + 20) = 90
	m)	(50 + 60) = 110
	n)	(50 + 70) = 120
	0)	(80 + 40) = 120 (50 - 50) - 100
	p)	(50 + 50) = 100
	q) r)	(30 + 40) = 70 (90 + 20) = 110
	s)	(30 + 60) = 90
	t)	(90 + 40) = 90 (90 + 40) = 130
		(90 + 40) = 130
	3. a)	\$42.00 + \$12.00 = \$ 54.00
	b)	\$10.00 + \$ 3.00 = \$ 13.00
	c)	\$12.00 + \$79.00 = \$ 91.00
	d)	\$ 1.00 + \$43.00 = \$ 44.00
	e)	\$13.00 + \$13.00 = \$ 26.00
	f)	\$ 5.00 + \$84.00 = \$ 89.00
	g)	\$98.00 + \$ 5.00 = \$103.00
	h)	\$12.00 + \$ 9.00 = \$ 21.00
	i)	\$33.00 + \$87.00 = \$120.00
	j)	\$ 2.00 + \$49.00 = \$ 51.00
	k)	\$35.00 + \$ 6.00 = \$ 41.00
	1)	\$87.00 + \$ 9.00 = \$ 96.00

The

QLWG Skills for Life Series

was made possible through funding from a joint IFPCA funding initiative of the

Office of Literacy and Essential Skills

and the

Direction de l'éducation des adultes et de l'action communautaire

with the collaboration of



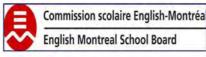








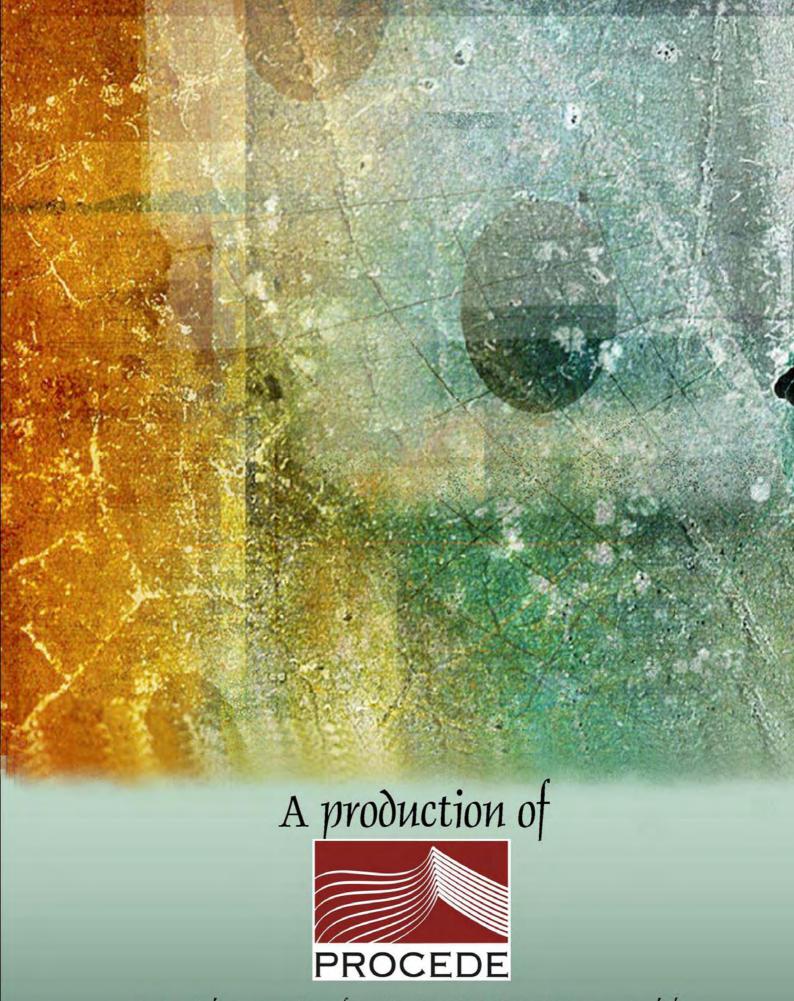












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