Teacher Guide

Our resource has been created for ease of use by both ***TEACHERS*** *and* ***STUDENTS*** *alike.*

Introduction

The NCTM content standards have been used in the creation of the assignments in this booklet. This method promotes the idea that it is beneficial to learn through practical, applicable, real-world *examples. Many of the drill sheets are organized around a central problem taken from* real-life *experiences of the students. The pages of this booklet contain a variety in terms of levels of difficulty and content so as to provide students with a variety of different opportunities. Included in our resource are activities to help students learn how to collect, organize, analyze, interpret, and predict data probabilities. Visual models are included to assist visual learners. Teachers may also choose to use mathematics manipulatives along with the exercises included in this book to help address the needs of kinesthetic learners.*

Contained in this booklet are 11 Timed Drill Sheets and 6 Warm-Up Drill Sheets, featuring real-life problem solving opportunities, and 3 review sheets for grade 2. Also there are 3 overheads and 6 additional worksheets which can be accessed on the publisher's website.

How Is Our Resource Organized?

STUDENT HANDOUTS

Reproducible **drill sheets** make up the majority of our resource.

The **drill sheets** contain challenging problem-solving tasks in drill form, many centered around 'real-world' ideas or problems, which push the boundaries of critical thought and demonstrate to students why mathematics is important and applicable in the real world. It is not expected that all activities will be used, but are offered for variety and flexibility in teaching and assessment. Many of the drill sheet problems offer space for reflection, and opportunity for the appropriate use of technology, as encouraged by the NCTM's *Principles & Standards for School Mathematics*.

The **drill sheets** workbook can be used in correlation with the separate **task sheets** workbook that matches with this particular grade and subject.

The **NCTM Content Standards Assessment Rubric** (*page 4*) is a useful tool for evaluating students' work in many of the activities in our resource. The **Reviews** (*pages 24-26*) are divided by grade and can be used for a follow-up review or assessment at the completion of the unit.

PICTURE CUES

Our resource contains three main types of pages, each with a different purpose and use. A **Picture Cue** at the top of each page shows, at a glance, what the page is for.

Teacher Guide

* Information and tools for the teacher

Student Handout

* Reproducible drill sheets

Easy Marking™ Answer Key

* Answers for student activities

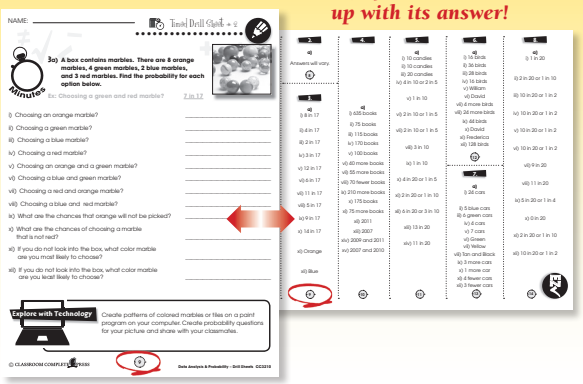
Timed Drill Stopwatch

* Write the amount of time for students to complete the timed drill sheet in the stopwatch. Recommended times are given on the contents page.

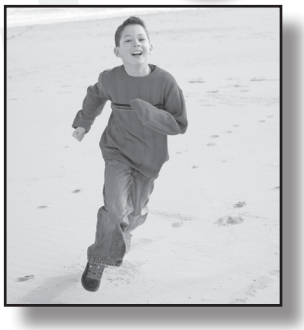
EASY MARKING™ ANSWER KEY

Marking students' worksheets is fast and easy with our **Answer Key**. Answers are listed in columns – just line up the column with its corresponding worksheet, as shown, and see how every question matches up with its answer!

Every question matches up with its answer!



NAME: _____



13a) The line plot below shows the number of laps students ran during warm-up for gym class.

Laps During Gym Warm-up

X = one student

									X		
				X					X		
				X					X		
				X			X		X		
				X			X		X	X	
				X	X		X		X	X	
X				X	X	X	X		X	X	
X		X	X	X	X	X	X		X	X	
X	X	X	X	X	X	X	X		X	X	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

i) What was the most number of laps run? _____

ii) What was the fewest number of laps run? _____

iii) How many students ran 8 laps? _____

iv) How many students ran less than 4 laps? _____

v) How many students ran more than 9 laps? _____

vi) How many total students ran 1 or 2 laps? _____

vii) How many more students ran 10 laps than 6 laps? _____

viii) Which totals both show two people running laps? _____

ix) Only one student ran how many laps? _____

x) Four students ran how many laps? _____

xi) Nine students ran how many laps? _____

xii) For which numbers did no one run any laps for? _____

Explore with Technology

Use an online or computer software program to create a graph of the data above.

13.

a)
i) 10 laps
ii) 2 laps
iii) 6 students
iv) 8 students
v) 14 students
vi) 4 students
vii) 5 more students
viii) 3 and 4 laps
ix) 2 laps
x) 6 laps
xi) 10 laps
xii) 9 and 12

14.

a)
i) Answers will vary.
ii) 5
iii) Answers will vary.
iv) Maple Leafs
v) Rangers
vi) Maple Leafs
vii) Rangers
viii) Flyers and Rangers
ix) Maple Leafs
x) Answers will vary.
xi) 20 shots
xii) 10

Flipping a Coin

The chart below shows ten coin flips done by Shauna during class.

Flip Number	Head/Tails	Flip Number	Heads/Tails
First	Heads	**Sixth**	Tails
Second	Heads	**Seventh**	Heads
Third	Tails	**Eighth**	Tails
Fourth	Heads	**Ninth**	Heads
Fifth	Tails	**Tenth**	Heads

i) Before starting, how likely was Shauna to flip a tail? _____

ii) Before starting, how likely was Shauna to flip a head? _____

iii) How many heads did Shauna flip? _____

iv) How many tails did Shauna flip? _____

v) What percent of the flips were heads? _____

vi) What percent of the flips were tails? _____

vii) What is the ratio of heads to tails on Shauna's flips? _____

viii) Suppose the numbers were doubled. How many heads would Shauna have? _____

ix) Suppose the numbers were doubled. How many tails would Shauna have? _____

x) Which flips did Shauna get a "head" on the coin? _____

xi) Which flips did Shauna get a "tails" on the coin? _____

xii) What is Shauna most likely to flip next? _____

Reflection

Flip a coin 10 times and record your results in a chart. What do you notice about the probability of getting heads or tails?