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 3. Also there are 3 overheads and 6 additional worksheets which can be accessed on the publisher's website.

SAMPLE

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

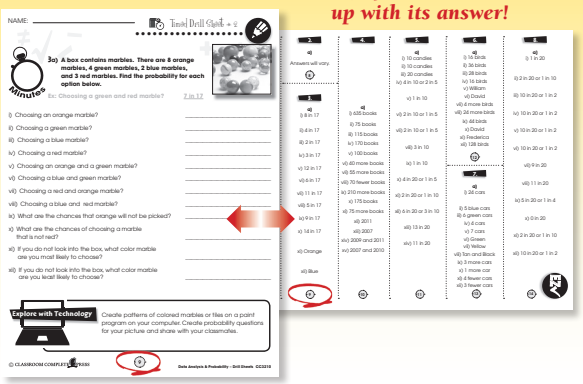
Timed Drill Stopwatch

* 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: _____

1a) The pictograph below shows the number of birthdays the students of Mr. Lee's class have each month.

Ex: How many more students have an October birthday than a January birthday? 7 more students

Jan	
Feb	
Mar	
Apr	
May	
Jun	
Jul	
Aug	
Sep	
Oct	
Nov	
Dec	

SAMPLE

i) How many months are shown on this pictograph? _____

ii) Which month had the greatest number of birthdays? _____

iii) Which month had the fewest birthdays? _____

iv) Which winter month had the most birthdays? _____

v) Which summer month had the most birthdays? _____

vi) How many students have a birthday the same month as you? _____

vii) How many more students have a December birthday than a November birthday? _____

viii) What two consecutive months have a total of 7 birthdays? _____

ix) August has twice as many birthdays as which month? _____

x) How many total birthdays are found in the second half of the year? _____

xi) How many more birthdays are in September than August? _____

xii) What months have only five student birthdays? _____

Review Sheet

NAME: _____

Review C

a) A standard dart board is shown to the right.

i) What is the probability of hitting any number on the dart board? _____

ii) What is the probability of hitting a number on the bottom half of the dart board? _____

iii) Is it likely, unlikely, certain, impossible to hit a bull's-eye? _____

iv) Is it likely, unlikely, certain, impossible to hit a bull's-eye five times in a row? _____

v) Is it likely, unlikely, certain, or impossible to hit an even number 5 times out of ten shots? _____

vi) What is the probability of hitting an odd number, not including the bulls-eye? Explain as a ratio. _____

vii) What is the probability of hitting an even number not including a bulls-eye? Explain as a ratio. _____

viii) If the score of the first five shots was 86, what numbers did the shooter hit? Show one way. _____

ix) If the score of the first three shots was 42, what numbers did the shooter hit? Show one way. _____

x) If the score of the first four shots was 36, what numbers did the shooter hit? Show one way. _____

xi) If the score of the first two shots was 21, what numbers did the shooter hit? Show one way. _____

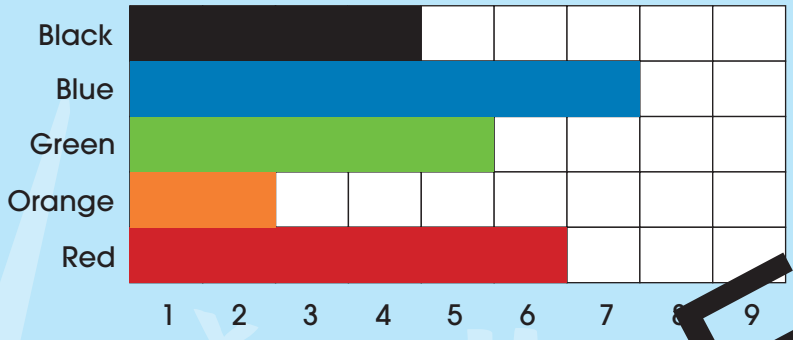
xii) If the score of the first six shots was 79, what numbers did the shooter hit? Show one way. _____

SAMPLE

Survey

The chart below shows the favorite colors of the students in Mrs. Thurston's class.

Favorite Colors of Mrs. Thurston's Class



i) How many students were surveyed for this graph? _____

ii) What color was the most popular favorite color? _____

iii) What color was the least popular favorite color? _____

iv) How many more students chose blue than black? _____

v) How many more students chose green than orange? _____

vi) How many total students chose green and black? _____

vii) What fraction of students chose black? _____

viii) What fraction of students chose red? _____

ix) What is the ratio of students who chose orange to students who chose green? _____

x) What is the ratio of students who chose blue to students who chose red? _____

xi) A total of eight students chose which two colors as their favorites? _____

xii) Two fewer students chose what color than black? _____

SAMPLE

Reflection

Conduct the same survey in your class. Complete the questions above using your own survey results.