



Teacher Guide

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

Introduction

Through multiple intelligence and a multi-disciplinary approach, this book engages students in meaningful learning activities that enhance their understanding of the concepts outlined by the NCTM. Students who are logical/mathematical can explain orally the processes they used, those who are visual learners can draw their understandings, those who are bodily-kinesthetic can use manipulatives, those with good interpersonal skills can talk about their understandings, and those who are linguistic can write about their knowledge of the topic. Each activity provides teachers with the opportunity to reinforce skills and extend student learning through additional exposure with varying levels of difficulty within each topic. Each activity can be used as a formative assessment tool to inform teachers and students about the progress students are making in the understanding of a particular concept. Rubrics are provided for teachers as an assessment tool and for students to engage in self assessment.



The **drill sheets** are provided to help students with their procedural proficiency skills, as emphasized by the NCTM's Curriculum Focal Points.

The **NCTM Content Standards Assessment Rubric** (page 4) is a useful tool for evaluating 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

This 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 worksheets and activities



Easy Marking™ Answer Key

- Answers for student activities

How Is Our Resource Organized?

STUDENT HANDOUTS

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

The **task sheets** contain challenging problem-solving tasks, 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 task 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.

EASY MARKING™ ANSWER KEY

Marking students' worksheets is fast and easy with this **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: _____



Task Sheet 7

7) Chung Lee's school has 200 students. A portion of these students sign up for different extracurricular activities.

- 36 sign up for Art Club
- 44 sign up for Science Club
- 23 sign up for Drama Club
- 28 sign up for Chess Club
- 52 sign up for Photography Club



a) **What percentage of students signed up for Art Club?**

- i) 12 ii) 22 iii) 18

b) **What percentage of students signed up for Science Club?**

- i) 22 ii) 45 iii) 1

c) **What percentage of students signed up for Drama Club?**

- i) 12 ii) 25 iii) 28

d) **What percentage of students signed up for Chess Club?**

- i) 8 ii) 14 iii) 22

e) **What percentage of students signed up for Photography Club?**

- i) 23 ii) 26 iii) 29

f) **How many students in total signed up for extracurricular activities?**

- i) 165 ii) 176 iii) 183

SAMPLE

Explore With Technology

Visit <http://nces.ed.gov/nceskids/createagraph> and create two charts (bar, circle, or pictograph) to display the information above for number of students in a club and percentage of students in a club.



Review A



Macalister owned a pet store. On the grand opening day, he sold 30 pets, which included parrots, goldfish, and frogs.

Macalister sold twice as many frogs as goldfish.

What are the possible combinations?

Show ALL your work. Remember to use a chart, graph, or picture to explain your answer.



What is the possibility of one person buying all three animals, a parrot, a goldfish, and a frog as pets? Explain your answer.

The Probability of Sales



At Ramon's school, they had a bake sale as a fundraiser for families at Christmas. Each year, Ramon's school tries to raise more money than the previous year.

The line graph below shows how much money the bake sales have sold over the past few years. Use the graph to answer the following questions:

Christmas Fundraiser Bake Sale



- a) How much money was made in Year 4?
- b) In which year did they make the least amount of money?
- c) In which year did they make the most amount of money?
- d) How much more money did they make in Year 5 than in Year 2?
- e) What was the most money made in one year?
- f) What were the combined sales of the last two years?