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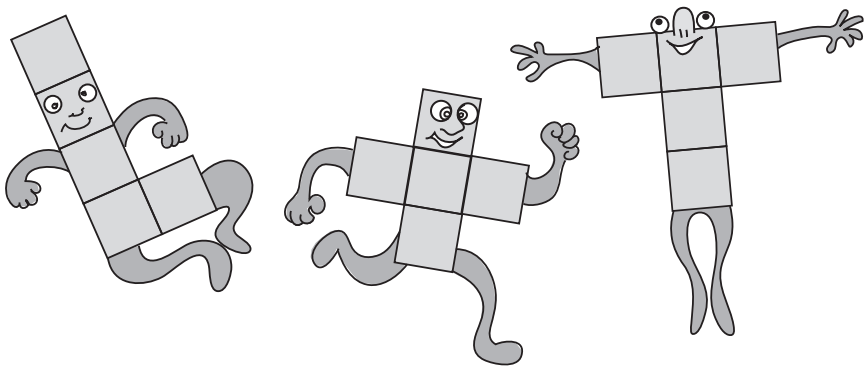
Chapter One: Introduction

Why Should Our School Have Family Maths Night?

The goal of Family Maths Night is to strengthen the mathematical aptitudes of students through the power of family interaction. By sponsoring Family Maths Night, educators are encouraging parents and students to appreciate the energy and pleasure of mathematics. Each activity is designed to promote mathematical thinking and communication. The hands-on approach presented in this book helps make learning mathematics a meaningful and productive process for all involved.

Parents play an important role in the academic lives of students. By participating in Family Maths Night, parents can serve as models of motivation, persistence and competency to their children. The directions for each activity are presented in a clear, concise manner,



allowing parents to guide students to a more complete understanding of various mathematics concepts. At the same time, parents may be acquiring new knowledge and solidifying or revising previous knowledge about mathematics. You may hear parents saying, "I never really understood that concept until I tried this activity," or "I never knew maths could be so much fun!" In many ways, the Family Maths Night activities enlighten parents as they begin to understand and value mathematics in new ways.

The concepts presented in each Family Maths Night activity will help students learn essential new skills and/or reinforce skills already learned in mathematics. While working through maths problems in a textbook is one way for some students to learn mathematics, there are other more interactive means of gaining knowledge of mathematics, such as the maths stations presented in this book. To help realise a vision of increased maths proficiency for all, we need to encourage students to think about and apply mathematics in the real world. Family Maths Night can help students and parents become mathematically fulfilled and empowered!

How is *Family Maths Night* Organised?

Family Maths Night: Strenthening Maths Abilities through Family Interaction for Years 5–9 contains seven chapters. The first chapter addresses the goals and intentions of this book. Chapters two to six present maths stations for the five maths content areas: number and operations; algebra; geometry; measurement; and statistics and probability. The final chapter provides additional tools for the successful implementation of Family Maths Night.

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The Footy Card Collection

Materials:

Pretend money (hundred dollar notes) or
Base ten blocks (hundred flats) or
Digi-blocks (hundred blocks)
Football cards (or index cards to represent the collection)

Helpful Hints:

Keeping track of how much money Marvin and Leon spend and earn helps participants accurately solve this problem.

Answers:

Marvin made $200.00
Leon lost $200.00

Challenge Answers:

Marvin made $500.00
Leon lost $500.00

Connections to Maths Goals:

***The Footy Card Collection* is an activity that encourages students to think about the meaning and effects of operations. Students are applying mathematics to the real world as they find and explain the solution.**

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The Footy Card Collection

Maths Question: How much money, if any, does Marvin or Leon make or lose?

Directions:

1. **To role-play this maths situation, decide who will be Marvin and who will be Leon.**
2. **Gather supplies to represent money and the football card collection. Role-play the maths situation.**

> ***Marvin bought a football card collection from Leon for $300. Later, Marvin sold the football card collection back to Leon for $400. Marvin bought back the football card collection from Leon for $500. Again, Marvin sold the football card collection to Leon for $600. Overall, how much money, if any, did Marvin make or lose and how much money, if any, did Leon make or lose?***

3. **Construct a table or chart that shows how you solved this problem.**

Questions Parents Can Ask:

***How can you keep track of the money?**

***How could you use negative numbers in this problem?**

***Does it matter how much money Marvin or Leon has in the beginning? Why or why not?**

Challenge:

If the pattern continues, how much money, if any, will Marvin make or lose after he buys back *and* sells for the fifth time? What about Leon?