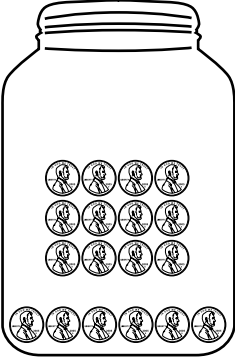# About the Mathematics in This Unit (page 1 of 2)

Dear Family,

Our class is starting a new mathematics unit called *Growth Patterns.* The focus of this unit is patterns and functions. In this unit, students learn about situations that involve change and ways to mathematically describe and represent this change. They use tables, graphs, and equations to represent how one quantity (such as height) changes in relation to another quantity (such as age). Students also compare situations with different rates of change.

Throughout the unit, students will be working toward these goals:

BENCHMARKS/GOALS	EXAMPLES
Create tables to represent the relationship between two variables.	The rule for Penny Jar A is: Start with 6 pennies and add 4 pennies each round.

		Round Number	Total Number of Pennies
3 rounds × 4 pennies per round 12 pennies + 6 pennies from the start 18 total pennies after round 3		Start	6
		1	10
		2	14
		3	18
		4	22
		10	?

A

How many pennies will be in the jar after the 10th round?

(continued)

Growth Patterns   **Family Letter**

About the Mathematics in This Unit (page 2 of 2)

BENCHMARKS/GOALS	EXAMPLES
Use tables and graphs to compare two situations with constant rates of change.	The rule for Penny Jar B is: Start with 4 pennies and add 2 pennies each round. Will Penny Jar A ever have the same number of pennies as Penny Jar B? How can you show that with a table or graph?
Use symbolic notation to represent the value of one variable in terms of another variable in situations with constant rates of change.	What is a rule or formula to find the total number of pennies in Penny Jar A for any round? $$(n \times 4) + 6$$ Multiply the round number, or "n," by 4, then add 6 because that is the number of pennies in the jar at the beginning.

Please look for more information and activities about *Growth Patterns* that will be sent home in the coming weeks.