

Master 1.6

To Parents and Adults at Home ...

Your child's class is starting a mathematics unit on increasing and decreasing patterns. Recognizing and analysing patterns is an important part of mathematical thinking. Patterning concepts lead to work with algebra in higher grades.

In this unit, your child will:

- Identify, extend, create, and compare increasing patterns.
- Identify, extend, create, and compare decreasing patterns.
- Find pattern rules.
- Display number patterns on hundred charts.
- Use patterns to solve problems.

Patterns can be found all around us. Encourage your child to look for patterns around the home, and talk about them.

Here are some suggestions for activities you can do at home:

- Look for patterns in your family's activities as marked on a calendar at home. What activities do you do daily? Twice a week? Every week?
- Use small objects like buttons or coins to make patterns that grow or shrink. Encourage your child to describe and extend the patterns.
- Count collections of nickels and dimes by 5s and by 10s. Count pennies by 2s.
- Find examples of geometric patterns in floor tiles or on game boards.

Master 2.6

To Parents and Adults at Home....

Your child's class is beginning a mathematics unit on Numbers to 1000. In this unit, your child will:

- Show a 3-digit number in different ways, using concrete materials, pictures, words, and numbers.
- Compare and order 2-digit and 3-digit numbers.
- Skip count by 5s, 10s, and 100s forward and backward to 1000.
- Skip count by 3s, 4s, and 25s forward and backward to 1000.
- Estimate how many items are in a large collection by comparing it to a known quantity.

Here are some activities you can do at home to support this learning:

- Use play money to model numbers and to develop understanding of trading or grouping. For example, show that \$342 can be modelled as $\$300 + \$40 + \$2$. Using play bills for \$1, \$10, and \$100 helps to reinforce place value.
- Play a number comparison game:
Remove the tens and face cards from a deck of regular playing cards. Deal 3 cards to each player.
Each player uses the cards to make the greatest possible 3-digit number. The person with the greater number gets a point.
Repeat. The first player to get 10 points is the winner.

Play the game again, this time making the least number possible.

Master 3.6

To Parents and Adults at Home ...

Your child's class is starting a mathematics unit on addition and subtraction. Your child will develop strategies for adding and subtracting whole numbers by using addition charts, mental math, estimation, Base Ten Blocks, place-value mats, and pencil and paper.

In this unit, your child will:

- Recall basic addition and subtraction facts
- Identify and apply relationships between addition and subtraction
- Add and subtract 2-digit numbers
- Use mental math to add and subtract
- Estimate sums and differences
- Add and subtract 3-digit numbers

The ability to use a variety of strategies to add and subtract leads to the development of a strong sense of number.

Here are some suggestions for activities you can do with your child.

- Play *Store* with your child. Price some of the items in your home in cents (for example, the cup of noodles costs 149 cents and the baguette costs 35 cents). You are the *Shopper* and your child is the *Cashier*. Have your child add the cost of the items you buy.
- Roll a number cube 4 times. Use the numbers rolled to make two 2-digit numbers. Have your child subtract the lesser number from the greater number. Repeat the activity. This time, roll the number cube 6 times and make two 3-digit numbers.

Master 4.6

To Parents and Adults at Home...

Your child's class is starting a mathematics unit on the measurement of time, length, perimeter, and mass.

In this unit, your child will:

- Use non-standard units, such as pendulum swings, to measure the passage of time.
- Identify activities that can be completed in minutes, hours, days, months, and years.
- Use a calendar to determine the number of days in a given month.
- Create a calendar to show personal events.
- Estimate and measure length and perimeter in centimetres and metres.
- Construct different shapes for the same perimeter.
- Estimate and measure mass in grams and kilograms.

Here are some activities you can try with your child:

- Keep a calendar of family events and activities. Encourage your child to refer to it frequently and to add to it as new events are planned.
- Ask your child to estimate and measure the length, width, height, or perimeter of objects around the house. For example, when your child is setting the table, ask for an estimate, then work together to measure the perimeter of the table, or a place mat.
- When shopping, have your child identify items sold by mass (g or kg).

To Parents and Adults at Home...

Your child's class is starting a mathematics unit on fractions. Children will build upon their real-world experiences of "fair shares" to recognize a fraction as an expression that relates a part and a whole.

In this unit, your child will:

- Find fractions of a whole.
- Compare fractions with the same denominators.
- Solve fraction problems.

We use fractions every day in many different situations. Encourage your child to recognize the use of fractions in daily life, for example, when filling a glass half full, measuring ingredients for a recipe, or sharing an apple.

Here are some activities you can do with your child to help reinforce the concept of fractions.

Fraction Activities

- When you serve your child food, such as a sandwich or an orange, cut it in half (or thirds, or fourths, and so on) and challenge your child to name the fraction for each part. After some is eaten, have your child name the fraction for the parts that are left.
- Provide your child with opportunities to divide food items into equal parts. Have your child tell the fraction name for each part.
- Play a game of "fraction concentration." On index cards, write fraction symbols, such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, ..., $\frac{1}{12}$. Prepare a second set of cards, on which you draw pictures to illustrate each fraction. Shuffle the cards and arrange them face down in a grid. To play, take turns turning over two cards. If the fraction picture matches the fraction symbol, the player keeps the cards. If not, the player replaces the cards. Play continues until all the cards have been matched.

To Parents and Adults at Home...

Your child's class is starting a mathematics unit on geometry. Geometric shapes are all around us, and mathematics can help your child recognize them. Understanding geometric form will help your child appreciate the geometry found in art, design, architecture, and nature.

In this unit, your child will:

- Identify and name various shapes with 3 or more sides
- Build, represent, and describe geometric objects
- Draw and talk about 2-D shapes and 3-D objects

Encourage your child to look for geometric shapes and objects around the home and neighbourhood, and talk about them. Here are some suggestions for activities that you can do at home:

Look for geometric shapes in buildings and street signs. For example, a stop sign is the shape of an octagon, and a yield sign is the shape of a triangle.

Look around the house for geometric shapes. Talk about the shapes you find. As you do, look closely at the corners and sides of the shapes. Count the corners and sides with your child.

Look for 3-D objects around your home, such as a fridge, stove, table legs, and so on. If possible, ask your child to count the number of corners and edges. Talk about how the object's shape is related to its purpose.

Look through magazines with your child to find as many different 2-D shapes and 3-D objects as you can find.

To Parents and Adults at Home...

Your child's class is starting a mathematics unit on data analysis. Data analysis relates to the collection, organization, and interpretation of information.

In this unit, your child will:

- Collect data to find information or solve a problem.
- Organize data using tally marks, charts, lists, and line plots.
- Construct and label line plots and bar graphs.
- Read and interpret charts, line plots, and bar graphs.

Here are some suggestions for activities you can do with your child.

Have your child collect and organize data at home to help make an important decision. For example, he or she could collect and organize data to decide the flavour of birthday cake to bake for the next family birthday. Your child should write a question to ask family members, collect and organize the results, and decide what flavour of birthday cake to bake.

With your child, look for examples of bar graphs in newspapers, magazines, or on the Internet. Have your child share 3 things that she or he knows by looking at the bar graph.

To Parents and Adults at Home ...

Your child's class is starting a mathematics unit on multiplication and division. Multiplication and division are basic computational skills that children must eventually master in order to succeed in higher levels of mathematics. The focus of this unit is on developing an understanding of the processes of multiplication and division in order to develop strategies for multiplying and dividing whole numbers up to 5×5 . Children will use counters, number lines, and arrays to develop their understanding.

In this unit, your child will:

- Model multiplication and division up to 5×5
- Find strategies to multiply and divide up to 5×5
- Pose and solve story problems involving multiplication and division.

Encourage your child to share different strategies used to multiply and divide.

We use multiplication and division in many day-to-day situations. Here are some suggestions for activities you can do at home:

- Look for things that come in groups of 2, 3, 4, and 5. Create problems. For example: Bikes have 2 tires. How many tires are on 4 bikes?
- Use a deck of playing cards, using only the 1s (Aces) to 5s. Shuffle the cards. Flip the first card. This represents the number of groups. Flip the second card. This represents the number of objects in each group. Have your child draw a picture to match the cards, and write a multiplication and division sentence to match the picture. Continue until all cards are used up.