Inside

What's in this Book?

1	Chapter 1 – Smarter Sorting	Page 7
2	Chapter 2 – Patterns Get Tricky	Page 18
3	Chapter 3 – Step-by-Step Heroes	Page 29
4	Chapter 4 – Compare and Decide	Page 40
5	Chapter 5 – My Smart Helpers	Page 51
	Big Brain Review	Page 62
	Maze Fun	Page 64
	Picture & Logic Puzzles	Page 65
	Glossary – Words I Learned	Page 67
	Things I Can Do Now	Page 70
	My Notes & Drawings	Page 71
	My Certificate	Page 72

5 chapters • 72 pages • Hours of brain fun

Chapter 1

Smarter Sorting

Group like a super-thinker!

Chapter 1

What's New in Sorting?

In Class 1 you sorted by 1 thing.
Now let's sort by many!

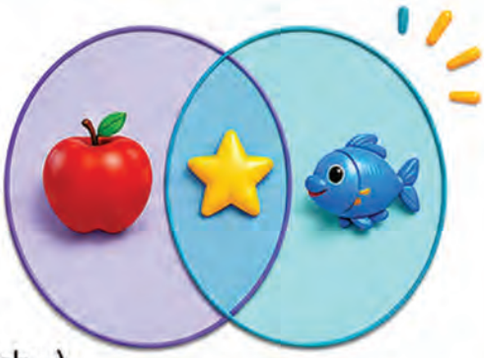
Quick recap from Class 1:

You can sort by colour , shape , or size .

NEW

NEW for Class 2:

- Sort by **3 things** at once
- Use **Venn diagrams** (overlapping circles)
- Sort with **Yes/No** questions
- Sort animals into **types** (mammal, bird, fish...)



An apple is:

Red · Round · Sweet

3 things at once!

A car is:

Has wheels · Carries people · Uses fuel

3 things at once!

Real things have MANY features.
Smart thinkers see all of them!

Chapter 1

Sort by 3 Things

Activity • Triple Sort

Look at each item. Tick ✅ all 3 boxes that match it!

Item	Red?	Round?	Eaten?
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐
	☐	☐	☐

Super Question:

Which item ticks all 3 boxes?

Write it: _____

Hint: Look for something **red, round, AND eaten!**

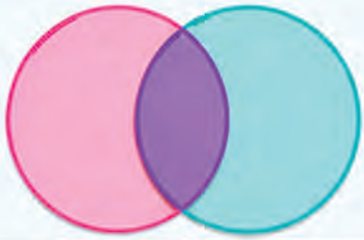
Chapter 1

Venn Diagrams

A Venn diagram has 2 circles that overlap!

Big Word Alert!

A **Venn diagram** shows what's same and what's different between 2 groups. The overlap is what they **SHARE**!



Look: Things in the kitchen and things in the bathroom

Some belong to **BOTH**!

What's in the middle?

Water , Soap , and Hands — they belong to **BOTH** kitchen and bathroom!

Chapter 1

Yes / No Sorting

Activity • Ask a Yes/No Question

We can sort by asking ONE question. Then split into 2 groups: YES and NO.

Question: *"Does it fly?"*

YES – Flies

Draw or write here ↓

NO – Doesn't fly

Draw or write here ↓

Yes/No questions help computers sort fast.
They can split a HUGE group in seconds!

Chapter 1

Animal Groups

Activity • Sort the Animals

Animals can be sorted into different groups.
Look at these and draw a line to where each one belongs!

Mammals

Have hair, drink milk

Birds

Have feathers, lay eggs

Fish

Live in water, have scales

Insects

Have 6 legs

Tricky:
A dolphin lives in water — but is it a fish? **No!** It's a mammal!
(It breathes air)

Chapter 1

Sort My Classroom

Activity · The Classroom Sort

Look around your classroom. Sort the things you see into these 4 groups by writing or drawing!

Things I Write With

Things I Read

Furniture

Art Stuff

Some things may belong to 2 groups!
That's totally OK!

Chapter 1

India Page Festival Sort

Activity • Sort Indian Festivals

India has many festivals! Sort these into the right seasons.

Diwali

Holi

Raksha Bandhan

Ganesh Chaturthi

Pongal/ Lohri

Baisakhi

Eid

Christmas

Spring/Summer

Holi, Baisakhi, Eid...

Monsoon

Raksha Bandhan, Ganesh Chaturthi...

Autumn

Diwali, Navratri...

Winter

Pongal, Lohri, Christmas...

Which is YOUR favourite festival? Write here:

_____

Chapter 1

The Sorting Race!

Game • Beat the Clock!

How to Play (with a friend or family):

1. Cut 20 small papers. Write 1 word on each (apple, car, dog, etc.).
2. Mix them all up!
3. A grown-up says **GO** and starts the timer!
4. Sort all 20 cards into 3 groups: **Living**, **Vehicles**, **Food**.
5. The fastest sorter wins!

Suggested words to write on cards:

apple	car	dog	bread
tree	bus	cat	rice
fish	bike	cow	roti

My Time: _____ seconds

Faster every time?
Your brain is learning to sort like a pro!

Chapter 1

My Library Project

Mini-Project • 2 Hours at Home

Mission: Sort all your books into 4 groups and make a "library shelf"!

Suggested groups:

Story Books

Activity

Science/Knowledge

School Notebooks

Steps:

1. Take all your books off the shelf.
2. Make 4 piles based on the groups above.
3. Within each pile, sort by size (biggest at the bottom).
4. Put them back on the shelf – group by group!

How many books do you have in TOTAL? _____

Which is your biggest pile? _____

Chapter 1

Try it Yourself!

Smart Sorter Challenge

1. **Wardrobe Sort:** Sort your clothes by season – summer and winter!
2. **Family Venn:** Make a Venn diagram of things YOU and a sibling both like!
3. **Spice Hunt:** Sort spices in the kitchen by colour with mom!
4. **Sock Race:** Sort 10 socks in under 1 minute!
5. **Yes/No Game:** Pick an animal in your head. Family asks Yes/No questions to guess!

In Chapter 1 you learned:

- Sorting by 3 things at once
- Venn diagrams (overlapping circles)
- Yes/No sorting
- Animal groups (mammals, birds, fish, insects)

Sorting Genius!

Next up: **Tricky Patterns!**

Chapter 2
Patterns Get Tricky
More patterns, more fun!

Chapter 2

More Pattern Types

In Class 1 patterns were simple.
Now let's level up!

NEW Pattern Words:

- **Growing Pattern** – gets bigger each time (1, 2, 3, 4...)
- **AB-AC Pattern** – like ● ● ● ● ● ● ●
- **Shrinking Pattern** – gets smaller (10, 9, 8...)

Growing pattern examples:

★ ★★ ★★★ ★★★★★ → ?

1 star, 2 stars, 3 stars, then ____ stars

AB-AC pattern:

● ● ● ● ● → ?

After red comes blue, then red, then green... what's next?

Read carefully! Sometimes patterns trick you.
Look for the FULL group that repeats!

Chapter 2

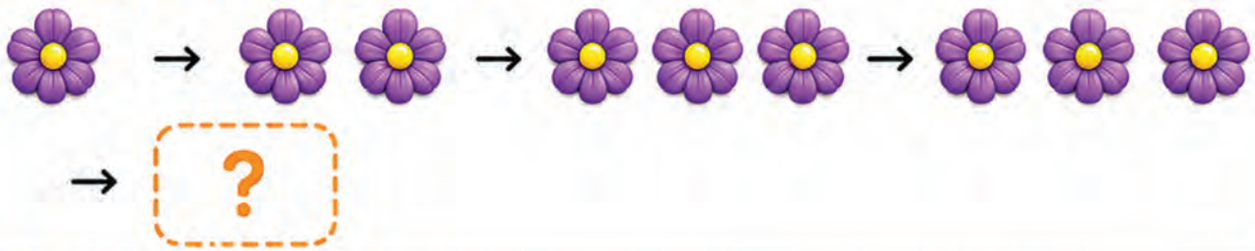
Growing Patterns

Activity • Make Them Grow!

Draw the next picture in each growing pattern!

Pattern 1 – More Hearts

Pattern 2 – Adding Petals



Pattern 3 – Number Climber

1 → 3 → 5 → 7 → ?

(skip count by 2)

In nature: A baby plant grows leaves: 2, then 4, then 6, then 8! That's a growing pattern!

Chapter 2

Number Patterns to 100

Numbers love patterns!
Count by 2s, 5s, and 10s!

10s

Count by 10s:

10 • 20 • 30 • 40 • 50 • 60 • 70 • 80 • 90 • 100

5s

Count by 5s:

5 • 10 • 15 • 20 • 25 • 30 • 35 • 40 • 45 • 50

2s

Count by 2s:

2 • 4 • 6 • 8 • 10 • 12 • 14 • 16 • 18 • 20

Fill in the missing numbers:

10	20	?	40	?	
5	?	15	?	25	
2	4	?	?	10	

Chapter 2

Combo Patterns

Activity • Two Things at Once!

In combo patterns, **BOTH** the colour AND the shape change!

Example:

Colour: red-blue-red-blue • Shape: star-moon-star-moon

Your turn! Complete these combo patterns:

Combo patterns are tricky because you must watch **2 things** at once. Big brain workout!

Chapter 2

Patterns in Music & Songs

Every song has a pattern! Can you hear it?

Try singing this:

"Twinkle, twinkle, little star..."

The melody goes: low-low-HIGH-HIGH-higher-higher-HIGH

Clap & Sing Patterns:

Loud • soft • soft • Loud • soft • soft

(Big claps are loud, small claps are soft)

Sa • Re • Sa • Re • Sa • Sa

Indian classical pattern – try singing it!

India's Music Patterns: Indian classical music uses "Tala" – beat patterns repeated again and again!
Tabla players know hundreds of patterns!

Listen to your favourite song.

Find a part that repeats!

Chapter 2 India Page • Art Patterns

Indian art is FULL of beautiful patterns!

Rangoli

Dots and lines repeated – a perfect circle pattern!

Madhubani

Bihar art with flowers and fish patterns!

Warli

Maharashtra art – triangles and circles!

Bandhani

Gujarat tie-dye with dot patterns!

Activity • Draw a Warli Pattern

Warli art uses simple shapes. Draw 4 stick people in a row!

Chapter 2

Make Your Own Pattern

Activity • Be the Pattern Boss!

Make 6 patterns. Each one different! Use colours, shapes, or numbers!

1. Easy 2-colour pattern:

2. Tricky 3-colour pattern:

3. Growing pattern:

4. Number pattern (skip count):

2 4 6

5. Shape combo pattern:

6. Crazy pattern (anything!):

Be creative, have fun, and be the Pattern Boss!

Chapter 2

Wall Pattern Project

Mini-Project — Decorate a Wall!

Mission: Make a paper pattern strip to put on your wall or fridge!

You will need:

Long paper

Crayons

Scissors

Tape

Steps:

1. Cut a long strip of paper (50 cm long).

2. Plan your pattern. What 3 things will repeat?

3. Draw your pattern. Make sure it repeats 10 times!

4. Tape it on your wall, door, or fridge!

Plan your pattern below:

Chapter 2

Pattern Hunt!

Activity • Find Patterns Everywhere!

Go on a pattern hunt around your home or school. Tick when you find each one!

1. Pattern on your school uniform ☐ Found!
2. Pattern on the floor tiles ☐ Found!
3. Pattern on a bedsheet ☐ Found!
4. Pattern on a leaf ☐ Found!
5. Pattern in a saree or dupatta ☐ Found!
6. Pattern on a wall or ceiling ☐ Found!
7. Pattern in your kitchen pots ☐ Found!
8. A pattern made by ants in a line ☐ Found!

Bonus: Draw your favourite pattern you found:

Chapter 2

Try it Yourself!

Pattern Master Challenge

1. **Bead a Necklace:** Make a 20-bead necklace with a growing pattern!
2. **Hop the Numbers:** Hop on the stairs counting 2, 4, 6, 8... or 5, 10, 15...

3. **Pattern Singing:** Make up a song where every line ends the same way!

4. **Floor Tile Hunt:** Count how many different patterns are on tiles in your home!

5. **Saree Patterns:** Ask grandma to show you 3 different saree patterns!

In Chapter 2 you learned:

- Growing patterns (1, 2, 3, 4...)
- AB-AC patterns and combo patterns
- Skip counting by 2, 5, and 10
- Patterns in music and Indian art!

Pattern Champion!

Coming up: **Bigger algorithms!**