

Numeracy

For 6 to 7 year olds

Screen-free learning resources that build multiple skills.



Content Partners

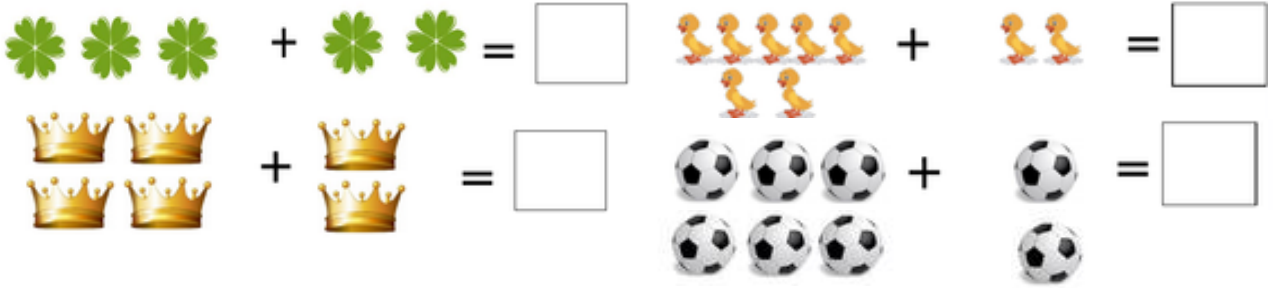
Check if this Workbook is right for you.

Answer the following questions in 20 minutes.

1. Write the number using words:

2 _____ 9 _____ 8 _____

2. Write the total number of items:



3. Write the missing numbers:

40, _____, _____, 37, 36, _____, 34, 33, _____, 31

4. $8 + 2 =$ _____ $7 - 3 =$ _____

5. Arrange the numbers from biggest to smallest: 16, 20, 29, 3

6. What comes next in the following patterns?

A A B A A B _____







1 2 5 1 2 5 _____



7. Draw three objects at home or that you have seen which have the following shapes: rectangle, circle, and triangle.








Answer Key




Give the allotted marks for each correct answer.

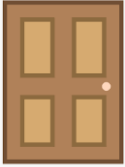


1. 2 two 9 nine 8 eight 1 mark each
2.
-  +  = 5

 +  = 9

 +  = 6

 +  = 8
- 1 mark each
3. 40, 39 , 38 , 37, 36, 35 , 34, 33, 32 , 31 1 mark each
4. 8 + 2 = 10 7 - 3 = 4 1 mark each
5. 29, 20, 16, 3 1 mark
6. A A B A A B A A B 1 mark each
-     

  
- 1 2 5 1 2 5

1 2 5
7.    1 mark each
- Rectangle

Circle

Triangle

(Accept any appropriate response.)

If your score is:

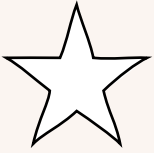
9 or less	Use the Numeracy Workbook for Level 0
10 to 16	This workbook is right for you!
17 to 20	Use the Numeracy Workbook for Level 2

My Learning Journey

Name: _____

Draw yourself here.

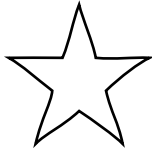
Week 1



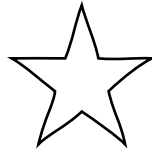
Day 1



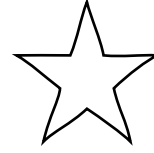
Day 2



Day 3



Day 4



Day 5

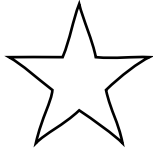


DONE!

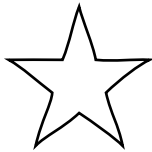
Week 2



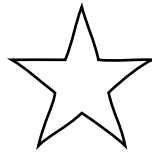
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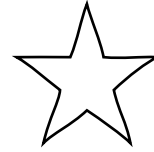
Day 2



Day 3



Day 4

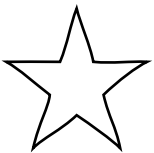


Day 5

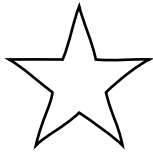


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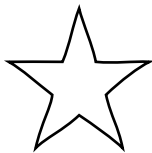
Week 3



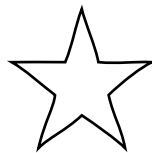
Day 1



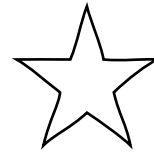
Day 2



Day 3



Day 4

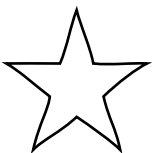


Day 5

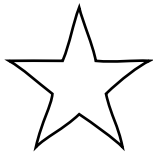


DONE!

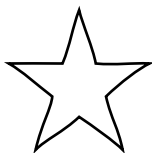
Week 4



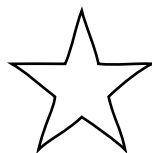
Day 1



Day 2



Day 3



Day 4



Day 5



My Emotions

Draw how you feel **everyday** in your notebook.

Today, I feel



Happy

Sad

Confused

Angry

Scared



Week 1 Overview



Project

Number Bonds

Explore how numbers can be used to create other numbers.

Domino Count

Count the dots on dominos and make number bonds.

Let's Make 10!

Practise 10's number bonds through a game.

Adding Machine

Explore number bonds by making your own adding machine.

Grouping Game

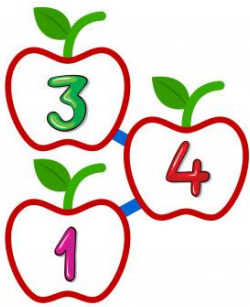
Practise number bonds through a game.

My Friend

Explore the bond you share with your friend.

Materials Needed

- Paper
- Counters (leaves, stones, rice, etc.)
- Pencil
- Tape/glue



Number Bonds

Can you use numbers to create other numbers?

Locate 6 items that are a part of a whole. (Eg: leaves are a part of a plant, sleeves are a part of a t-shirt, etc.).

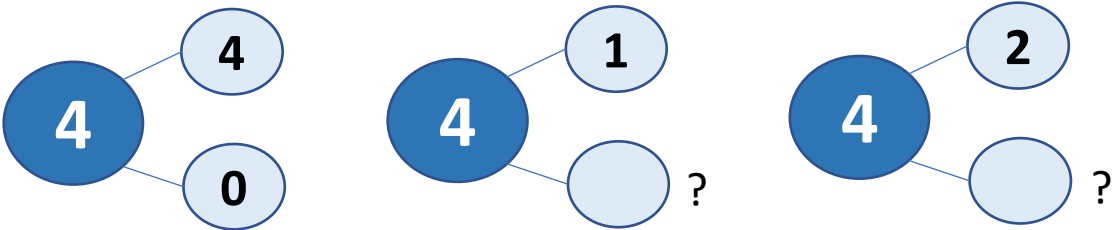
Are numbers part of a whole too? Let’s find out!

Collect 4 counters (stones, beads, etc.) and choose 2 people.

How can you split the counters between them?

I had	I gave _____ (Eg: my brother)	I gave _____ (Eg: my sister)
4 counters	4	0
4 counters	3	1
4 counters		
4 counters		
4 counters		

4 is a whole number and the numbers 1, 2, and 3 are parts of it.
So, the number bonds for 4 are:



Repeat the activity with 3 counters and 5 counters.
Draw the number bonds.

GROUPING GAME

5 or more players

1 narrator

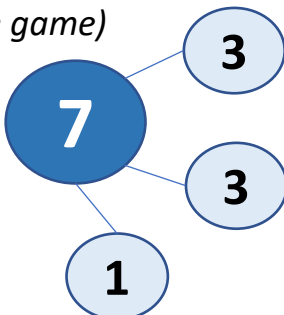
How to Play

- Players form a circle and begin walking and clapping.
 - The narrator will say a number from 1 to 5.
- Players quickly get into groups of that number.
- The players who are not in a group are out.
 - Draw the number bonds you observe.

**Make groups
of 3!**



(Total no. players
in the game)



**Uh-oh!
I'm out!**

The last pair of players are the winners!

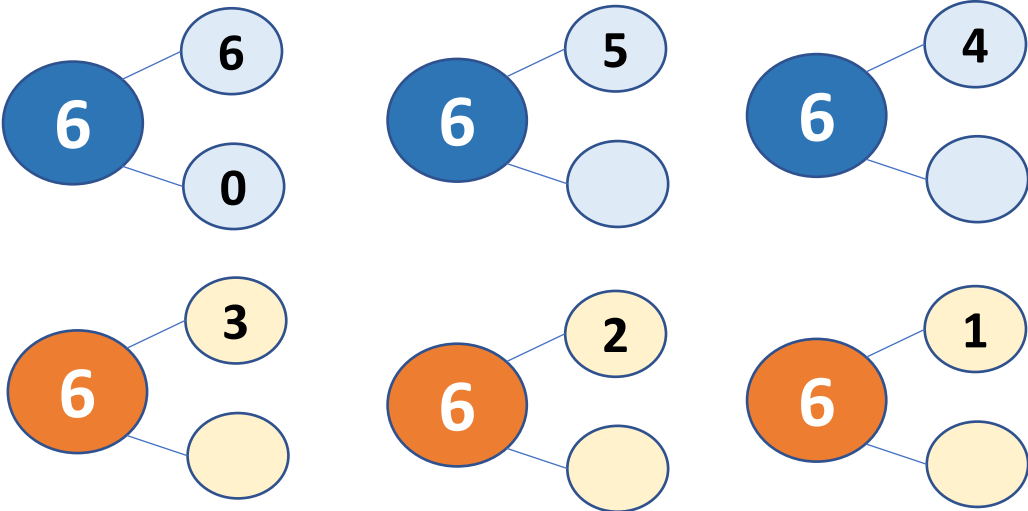
Number Bonds

In how many ways can you split 6 counters between 2 people?

I had	I gave _____	I gave _____
6 counters	6	0
6 counters	5	1
6 counters		
6 counters		
6 counters		
6 counters		
6 counters		

When is the division fair (split equally)? When is it unfair?

Fill in the number bonds for 6.



Repeat the activity with **7 counters** and draw the number bonds.

MY FRIEND

Just like numbers have bonds, we bond with people too. They are our friends or family.

Think of one person you bond well with. Fill the table:



My name: _____

What I am good at: _____

What I like to eat: _____

What I like about my friend: _____

My friend's name: _____

What my friend is good at: _____

What my friend likes to eat: _____

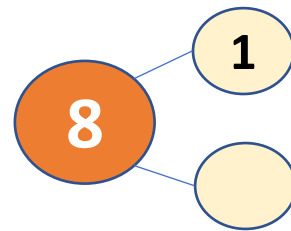
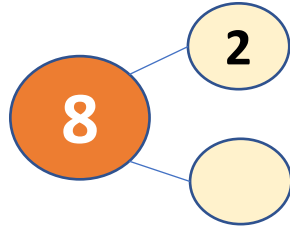
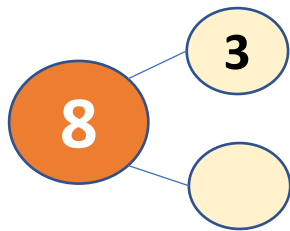
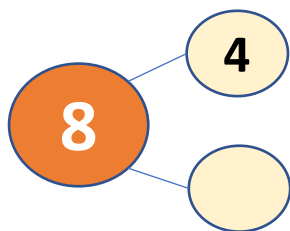
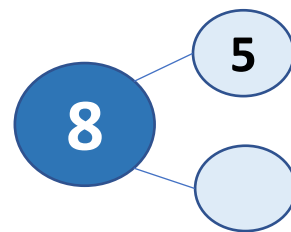
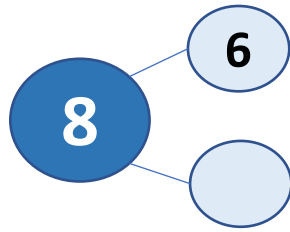
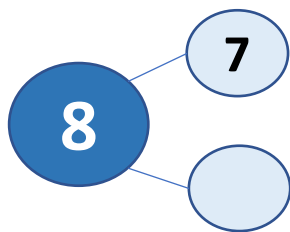
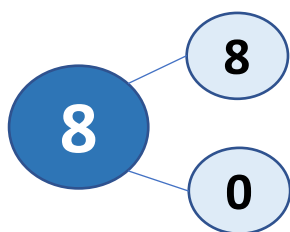
What my friend likes about me: _____



- Is your friend just like you or very different from you?
- What are some things that are nice to have in common with our friends?
- Can we be different from each other and still be friends?

Number Bonds

Explore the different ways in which **8 counters** can be split between 2 people. Complete the number bonds below.

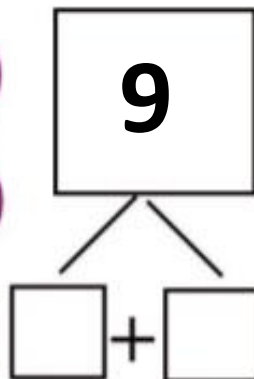
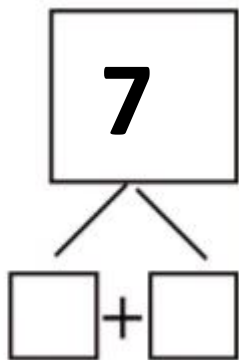


Are there more fair ways to split the number between more people?

Repeat the activity with **9 counters** and draw the number bonds.

Let's Revise!

Count the items and note down all the different number bonds you can create:



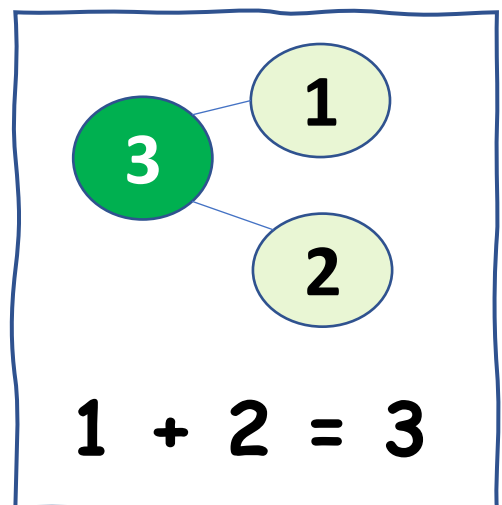
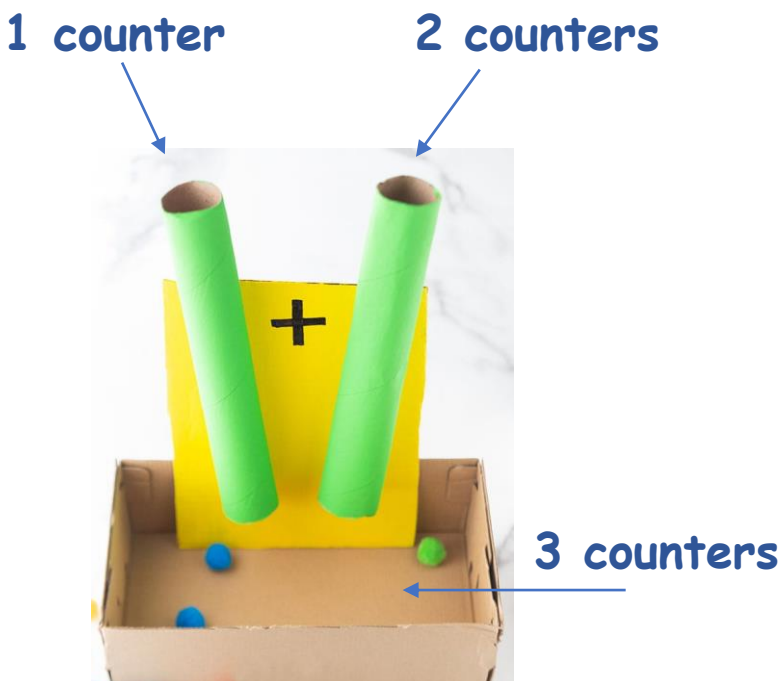
ADDING MACHINE

- Fold two pieces of paper to create 2 cylindrical tubes.
- Stick them on the wall in a V-shape.
- Below the two tubes, place a bucket or container.



Pass some counters through the tubes and note down the final number you see. Write out the number bonds.

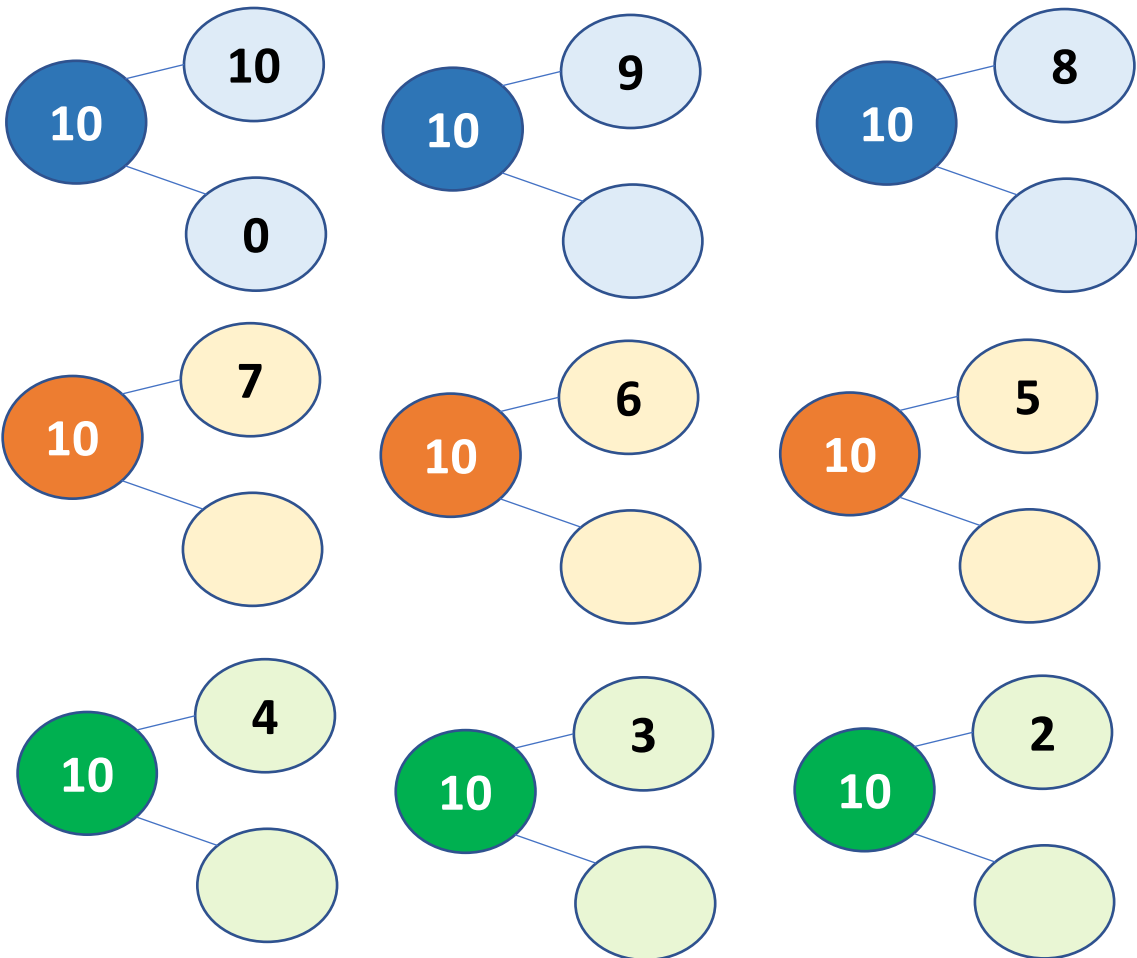
Example



Create 6 different number bonds using your Adding Machine.

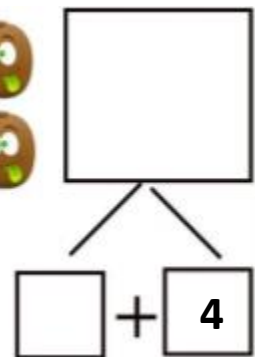
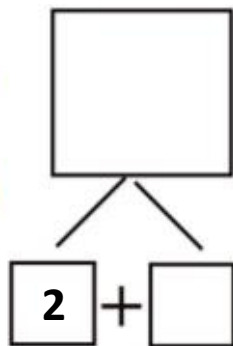
Number Bonds

Explore the different ways in which **10 counters** can be split between 2 people. Complete the number bonds below.



Let's Revise!

Count the items and fill the number bonds.



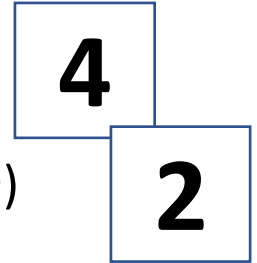
LET'S MAKE 10!

4 or more players
1 narrator

Game Set-Up

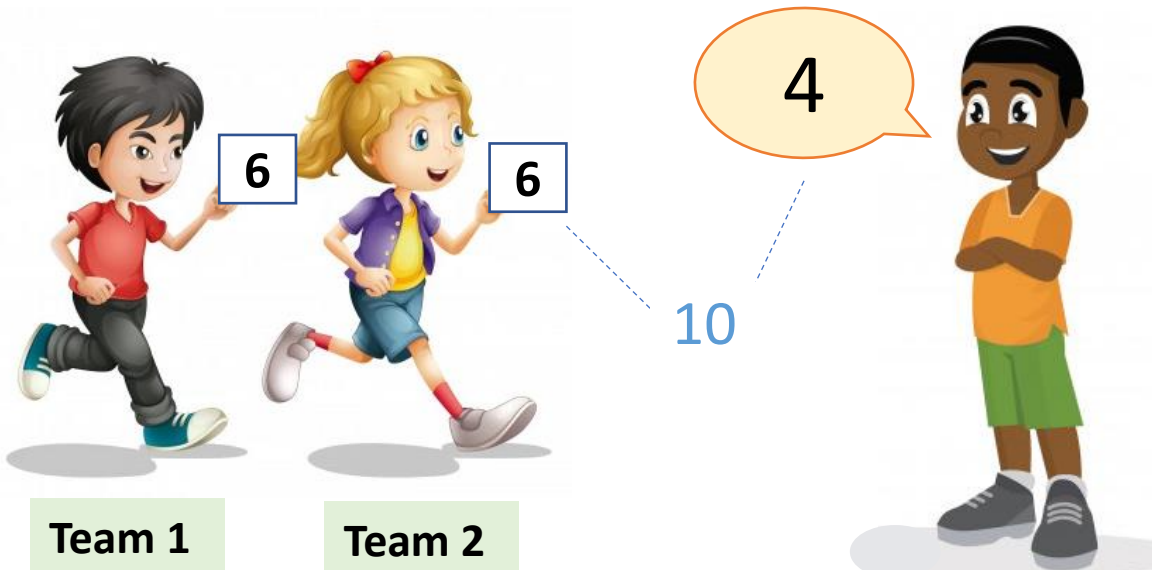
Each team should have:

Number cards (1 to 9) **OR** Counters (from 1 to 9)



How to Play

- Create 2 teams. Split the number cards/counters among team members.
- All players should stand 10 to 15 steps from the narrator.
- The narrator will say a number from 1 to 9 out loud.
- The player who has the card to make the number 10 with the called-out number runs to the person.
- The player who reaches first to make the number bond earns **1 point** for the team.

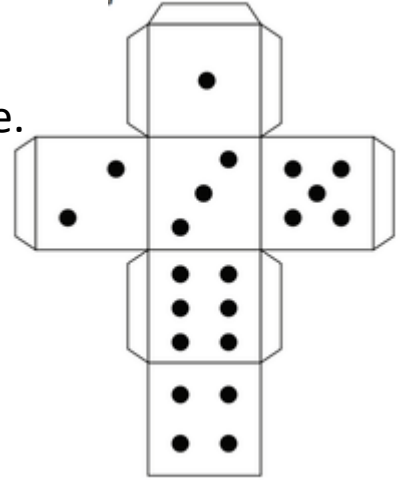


Number Bonds

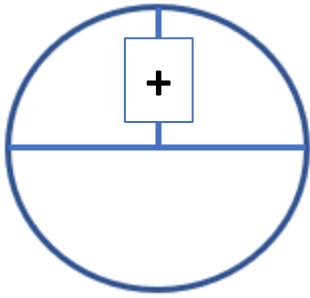
Activity Set-Up



With an adult's help, make a die.



- Draw and cut the picture.
- Fold along the lines and stick together to form a cube.

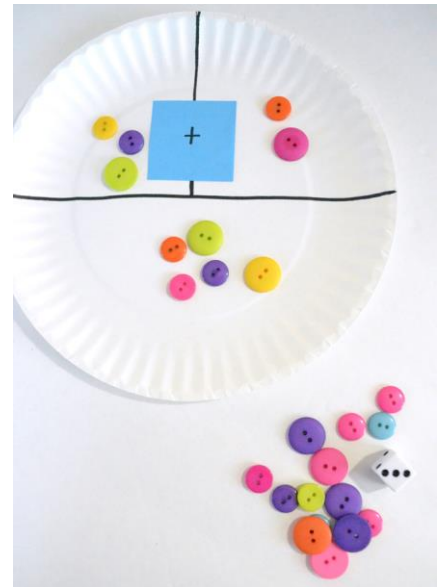


- On paper (or the ground), draw this shape. Add a '+' sign as shown.
- Keep 10 counters/small stones ready.

Activity Time!

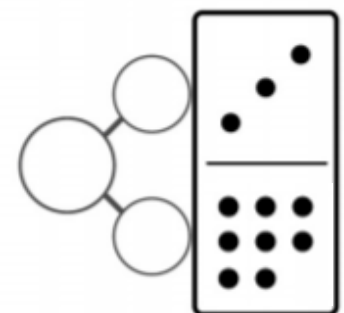
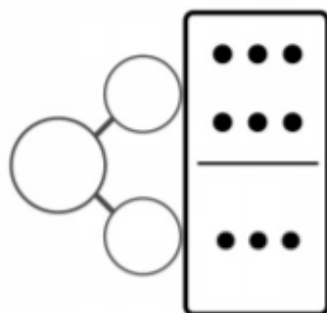
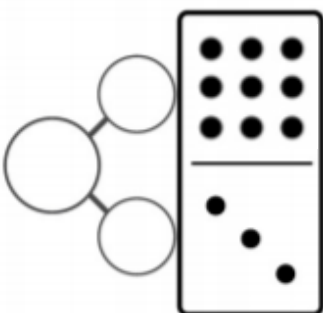
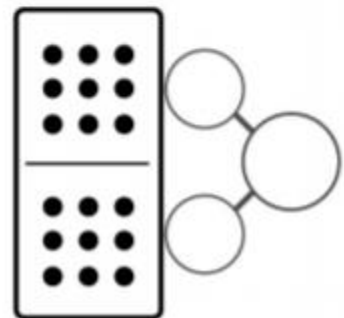
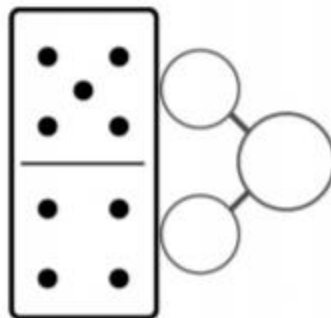
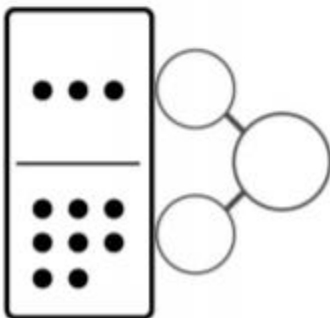
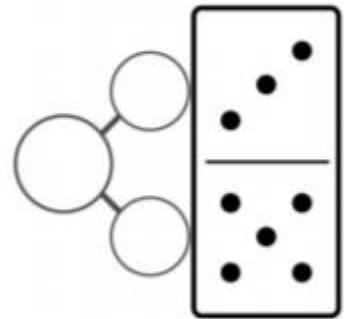
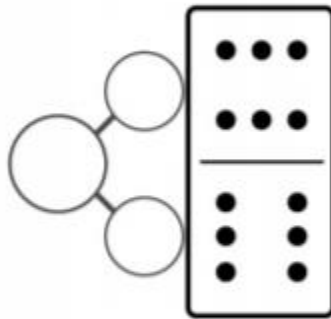
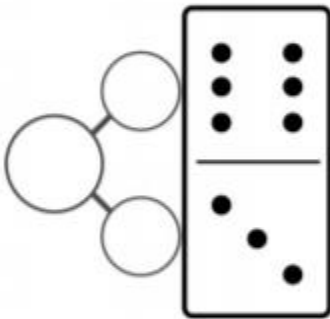
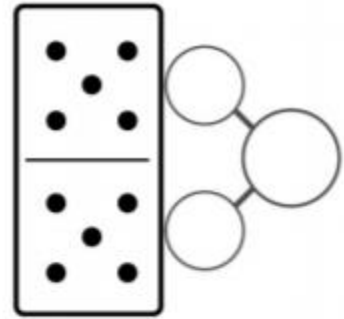
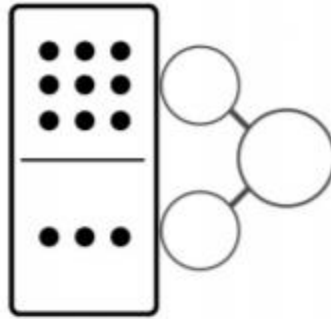
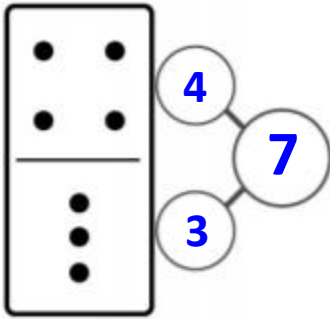
- Roll the die. Place that many counters in the first section.
- Roll the dice again. Place that many counters in the second section.
- Add the counters in the third section.
- Draw the number bond.

Create 6 such number bonds.



- Can you use numbers to create other numbers?
- Where are number bonds used in daily life?

Count the dots on each domino. Write it and add them.



Weekly Reflection

Did I enjoy learning this week?



What are some new things I learned?

What did I do well?

What can I do better next week?

Week 2 Overview



Project

My Place Value Machine

Explore the place values of numbers.

Many Forms

Explore different ways to show a number through this game.



5

Math Signs

Challenge your peers and practise place values!

4

Garden of Leaves

Count and observe the beauty of leaves around you.

3

Number Names

Practise writing number names from 11 to 15.

1

Materials Needed

2

Number Names

Practise writing number names from 16 to 20.

- Paper
- Glue / Tape and Scissors
- Think Sticks
- Pencil
- Counters (beads/ small stones, etc.)
- Thread
- Dice

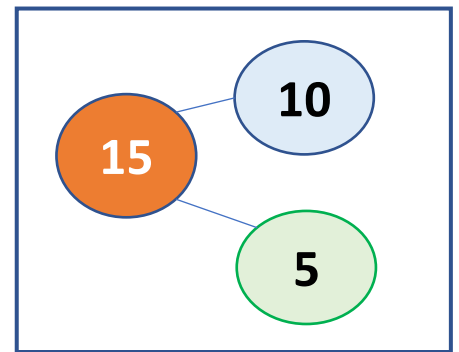
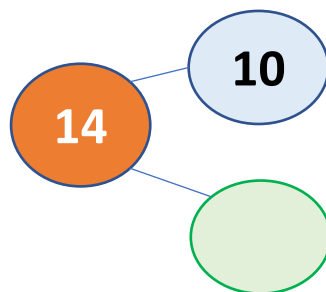
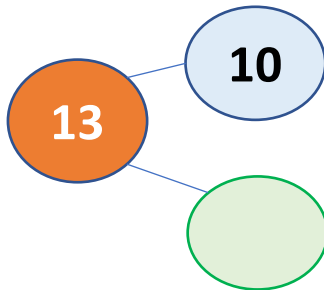
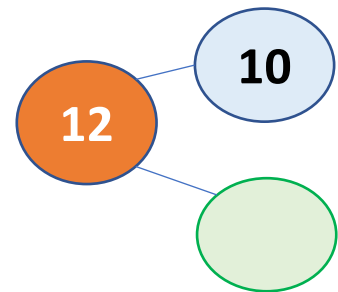
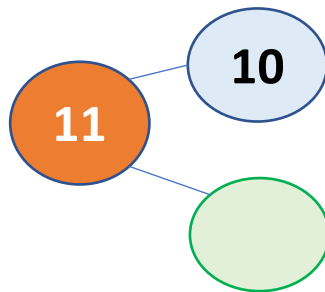
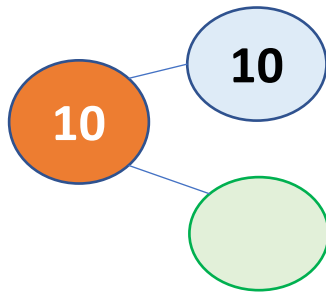


My Place Value Machine

What other numbers make up a given number?

Collect 15 small objects to count. (*stones, beads, leaves, etc.*)

Explore the number bonds using the counters:



Identify the place value of the digits from 10 to 20.

Place Value

Tens

Ones

Shows us how many tens the number has.

15

NUMBER NAMES (10 TO 15)

Say and trace the number names:

10

ten

ten

11

eleven

eleven

12

twelve

twelve

13

thirteen

thirteen

14

fourteen

fourteen

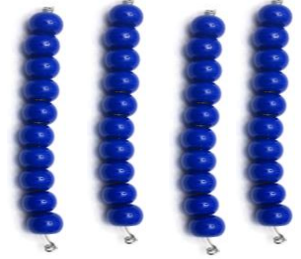
15

fifteen

fifteen

My Place Value Machine

- Put 10 beads or paper balls through a thread.
- Knot it up on either side of the thread to make them stay in place.
- Make 4 such threads.



tens	ones
------	------

On paper or the ground, make 2 sections - 'Tens' and 'Ones'.

Represent the numbers 10 to 20 in your place value machine.

18
→

tens	ones

Using the machine, explore the numbers 20 to 25:

Whole Number	Tens	Ones
20	2 (10 + 10)	0
21	2	1
22		
23		
24		
25		

Where can you find these numbers around you?

NUMBER NAMES (16 TO 20)

Say and trace the number names.

16

sixteen

sixteen

17

seventeen

seventeen

18

eighteen

eighteen

19

nineteen

nineteen

20

twenty

twenty

Can you write the missing numbers?

11

13

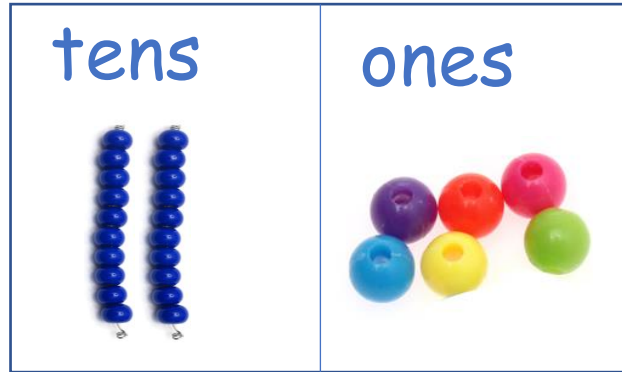
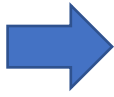
15

17

My Place Value Machine

Represent the numbers 26 to 30 in your place value machine.

26



Whole Number	Tens	Ones
26	2	6
27		
28		
29		
30		

Backward Counting Game

- Write the numbers **0 to 30** in a line on the floor.
- Each player should start at '30' and have 1 counter.
- Each player rolls the die and moves backwards that many steps. Say the numbers out loud as you cross them to get to the right number.
- The player that reaches 0 first, wins the game.

30

29

28

...

GARDEN OF LEAVES

Go for walk outside and look around. Do you see any trees or plants? Look at their leaves.

What colour are they? Are they big or small?
Notice how different they are from each other.

If you see any fallen leaves, pick them up and place them in a circle.

Otherwise, you can draw the different types of leaves you see. Do not pluck out leaves from plants.



How many leaves did you collect/draw?

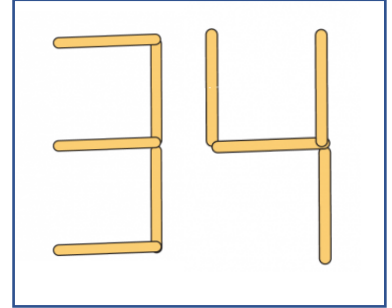
Each plant and tree is different from the other.
Yet they live close to each other.

Can you think of how this is similar to your friends/family?



My Place Value Machine

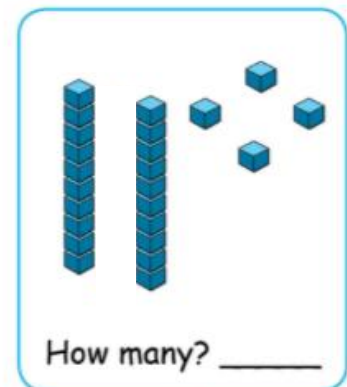
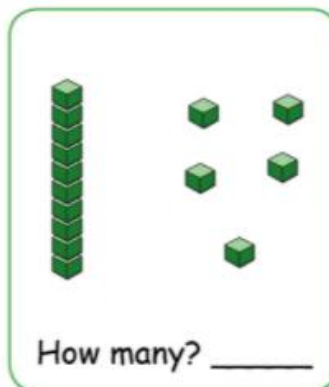
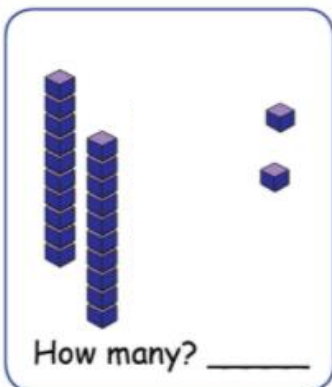
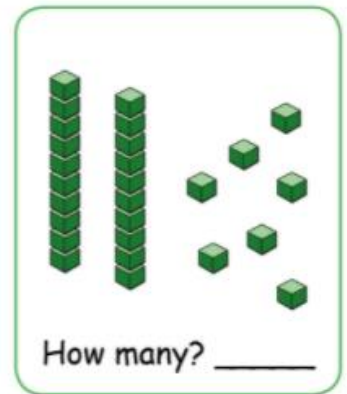
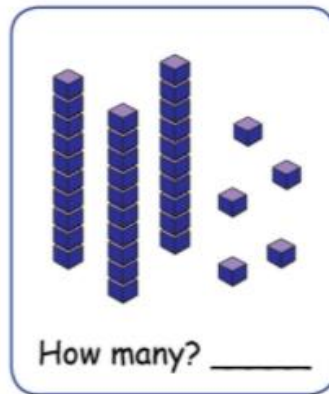
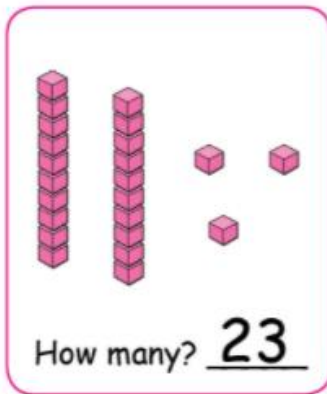
Collect thin sticks so they are easy to break into different sizes. Use those sticks to form the numbers 30-40. You can also use paper strips to create these numbers



Represent the numbers 31 to 40 in your place value machine.

Let's Revise!

Count and write.



MATH SIGNS

2 teams of 2 or more players

How to Play

Players will show the **tens** place like this:



Players will show the **ones** place on their fingers:



- Team 1 will create a number using the symbols.
- Team 2 will say the number and will earn a point if correct.
- The team with the most points wins.

Team 1

Example



Team 2

26!

My Place Value Machine

Numbers can be represented in different ways.

Words

Twenty-Five

Picture

Standard Form

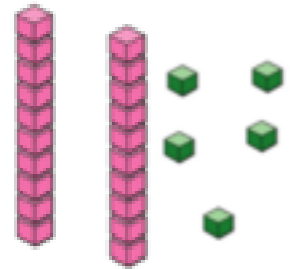
25

Expanded Form

$20 + 5$

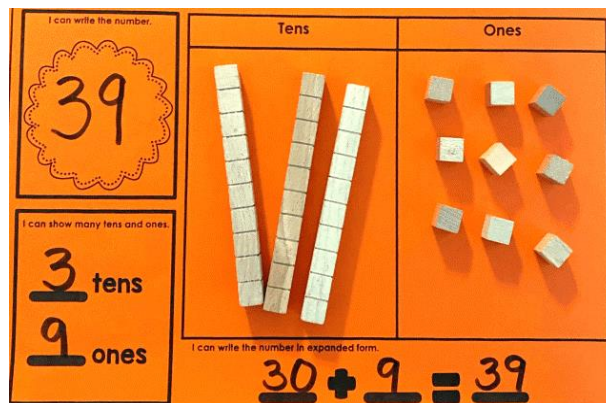
Place Value

2 Tens , 5 Ones



Choose any 5 numbers from 10 to 40 and show them creatively. Share it with your friends and family.

Examples



MANY FORMS

2 or more players

How to Play

- Each player says a number from 1 to 40 and rolls the die.
- Everyone writes the number based on the die:



Expanded Form



Words



Standard form



Picture

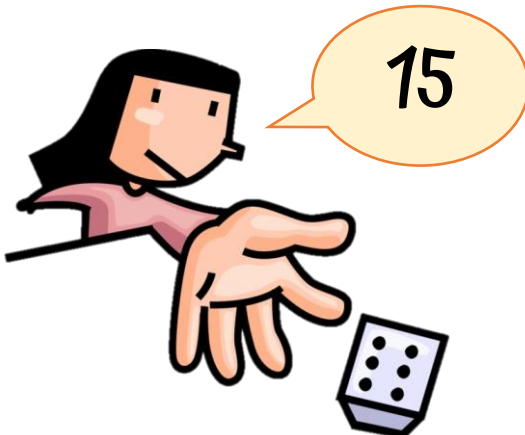


Place Value



Expanded form

- The first player to do it correctly, earns a point. The player with the most points wins.



The die shows 6. So, we should show 15 in **expanded form**.

$$15 = 10 + 5$$

Weekly Reflection

Did I enjoy learning this week?



What are some new things I learned?

What did I do well?

What can I do better next week?

Week 3 Overview



Project

Beauty in Shapes

Explore shapes and measurements.

Story Time

Read about The Shape Family.

Story of a Circle

Bring a circle to life!

Sunny Side

Think and draw what makes you happy!

What Shape Are You?

Create shapes using your body!

Measurements

Measure objects using digits, handspans and footspans.

Materials Needed

- Paper
- Colours
- Pencil
- Chalk



Beauty in Shapes

How do shapes help us make drawings?

What is the difference between 2D and 3D Shapes?

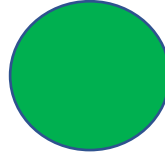
2D Shapes



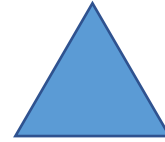
Rectangle



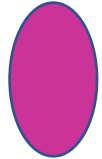
Square



Circle

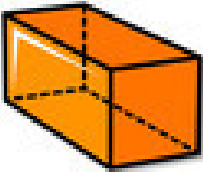


Triangle

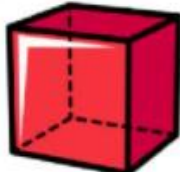


Oval

3D Shapes



Cuboid



Cube



Sphere


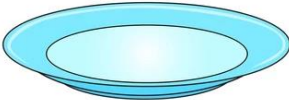



Cone



Cylinder

Draw 2 objects at home that look like each shape.

Shape	Object 1	Object 2
		

WHAT SHAPE ARE YOU?

How to Play

3 or more players

- Whisper one of the shapes to a player.



Triangle



Rectangle



Square



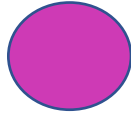
Star



Oval



Heart



Circle



Line



Kite

- Player 1 acts out the shape. Others have to guess the shape.



Triangle



Square



Star

- If the shape is guessed correctly, they earn a point.

The team with the most points wins the game!

Beauty in Shapes

Which shapes do you see in this drawing?

**Drawing Activity**

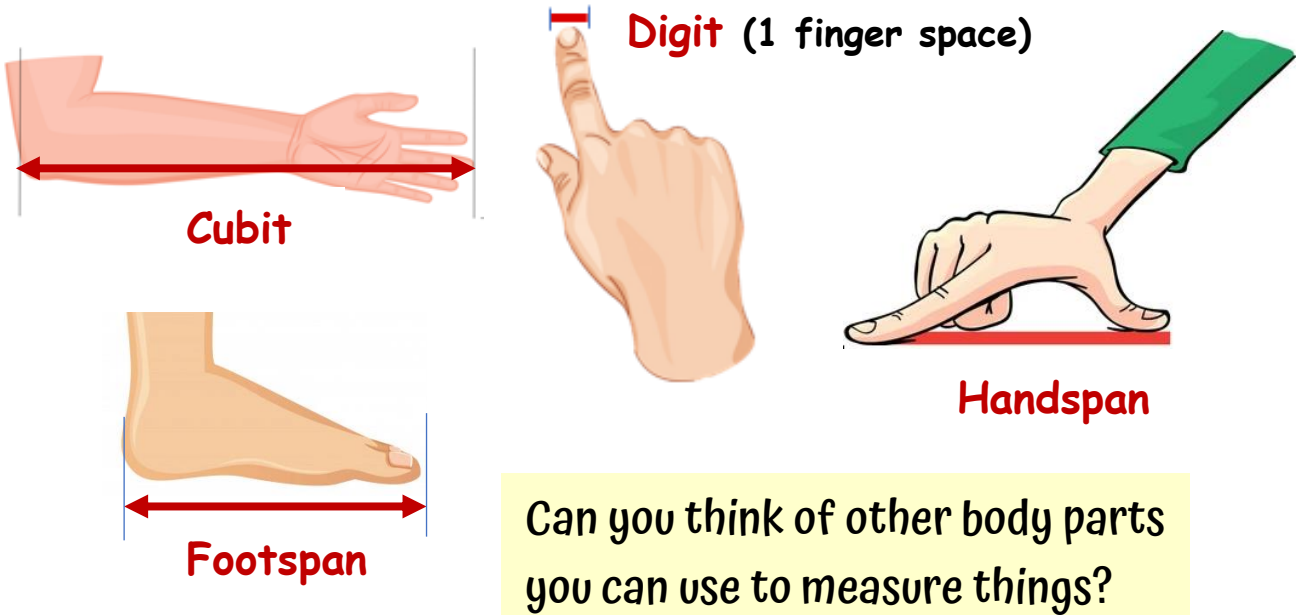
- Choose a place or scene that you want to draw.



- Make a list of the people, objects or animals you want to include in your drawing.
- Draw any 2 of those using shapes.

MEASUREMENTS

In the olden days, people measured using their bodies. Let's learn 4 ways:



- Explore the relationship between the measurements.
(Eg: 1 handspan equals how many digits?)
- How many digits is the length of your drawing sheet?

Draw the outline of your or your body.

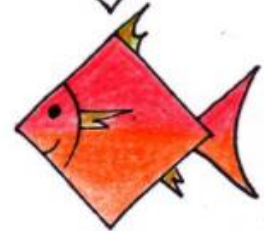
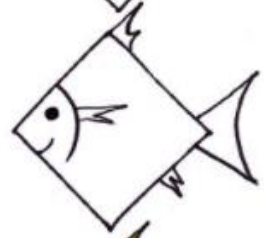
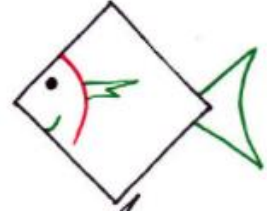
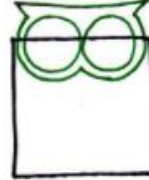
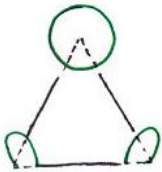
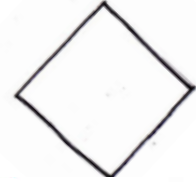
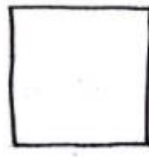
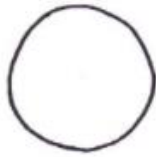
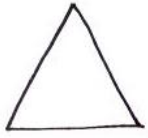


Measure the following using footspans and cubit:

- Hand Length
- Leg Length
- Full Body Length

Beauty in Shapes

Try drawing these animals using shapes.



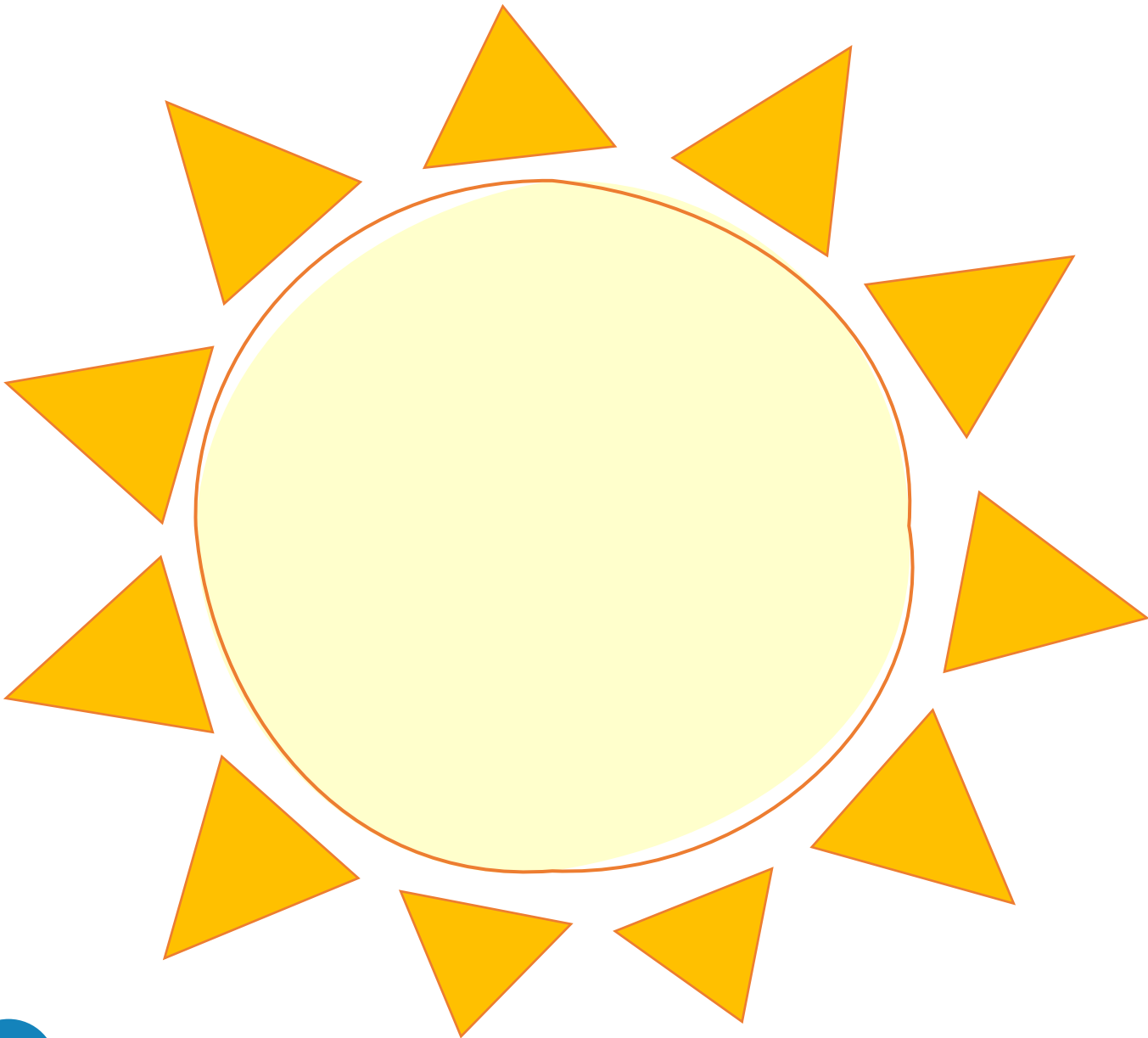
Drawing Activity

- Include any animal in your drawing using any shape.
- Why did you choose that animal?
- Explore 3 fun facts about the animal.

SUNNY SIDE

- Take 3 deep breaths.
- Close your eyes. Say all the things that make you **happy**.

Draw what comes to your mind in the sun below.

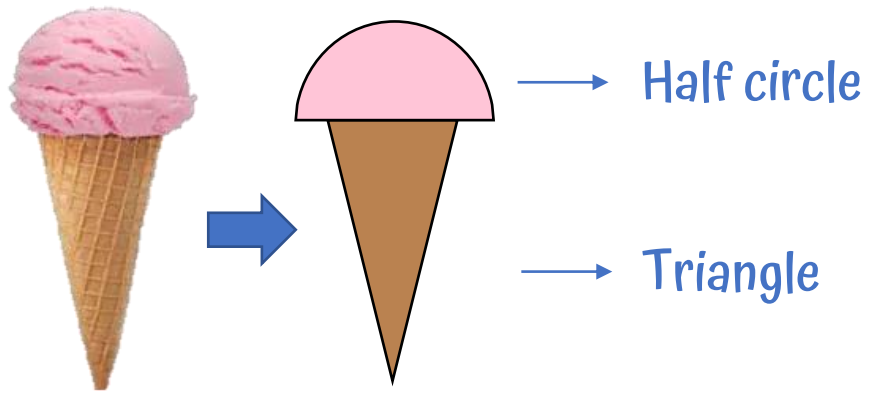


Beauty in Shapes

Complete your drawing by adding more details to it.






Some objects have 2 or more shapes put together.

Choose any 3 objects at home and then draw the shapes it is made of.



Let's Revise!

How many of each piece should Rita buy to make this butterfly?

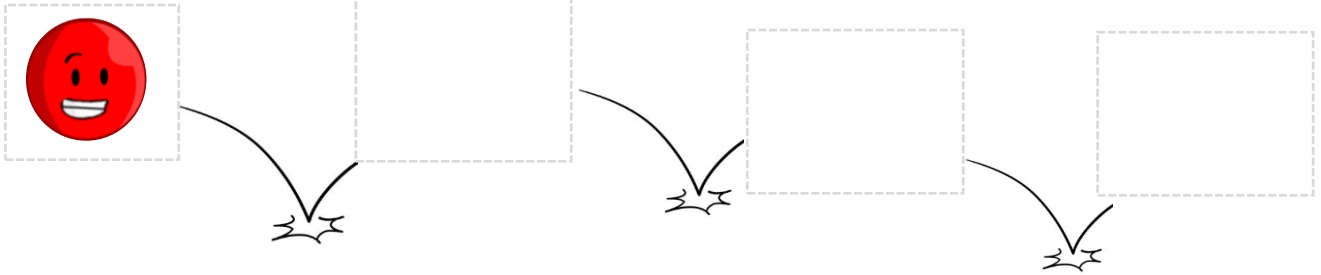
- Triangles 
- Rectangles 
- Hearts 
- Circles 
- Ovals 



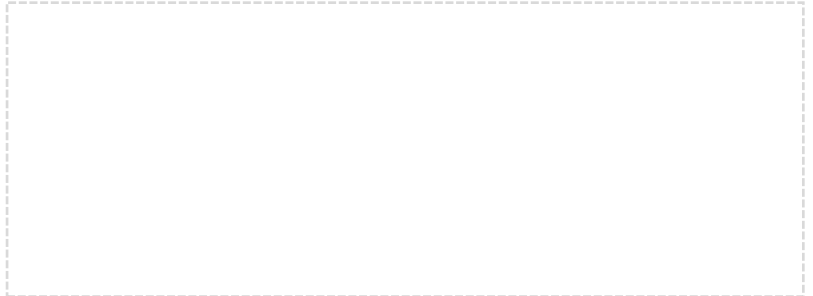
This is your pet circle. How will he introduce himself?



He loves to bounce! Every time he does, he changes his **shape**, **colour**, and **emotion**! Draw it out:



He goes to a park to a park to play. He becomes a ball. He becomes a merry-go-round. **What else can he become in the park?** Draw it!



It is time for him to take his family to a shop. He calls 3 of his circle friends and they become **wheels**. Can you draw the vehicle?

The family prepares lunch. Circle wants to help too. He becomes different **circular food** items. Draw 3 of them below:



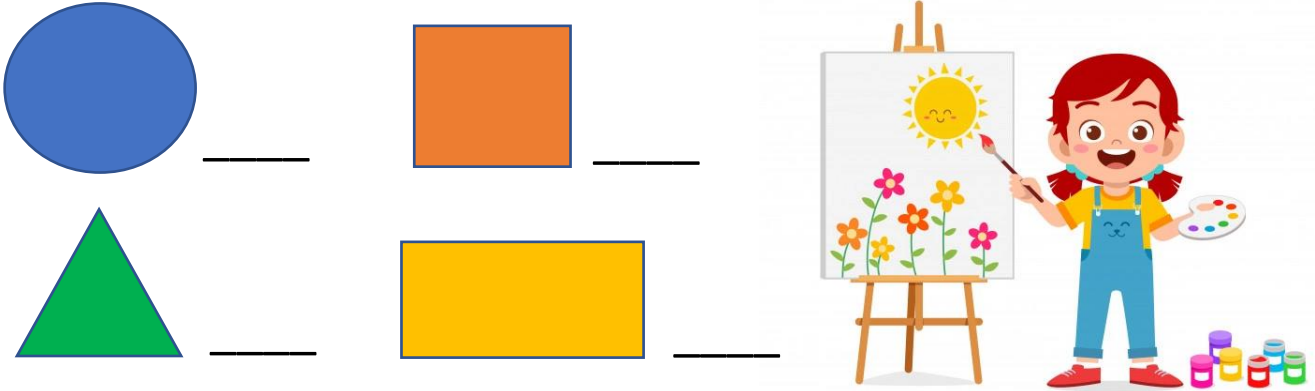
Aren't circles so useful?

Beauty in Shapes

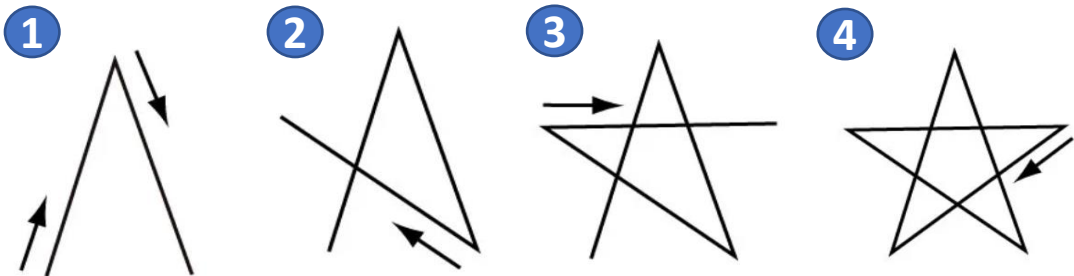
Presenting Your Drawing

- Show your final drawing to your family and friends.
- Explain the shapes you used in the drawing.
- Discuss with your family and add another shape to your drawing.

How many of each shape can you see in your drawing?



Draw a star for yourself for completing your drawing!



- List the shapes you learnt in this project. What does each shape remind you of?
- Which is your favourite shape? Imagine you are that shape and write/draw a story about its life!



WHO WILL WIN?



This is the Shapes Family.
In their town, there is a
Lantern Competition.

The Shapes are getting
ready for it. Circle and
his sister Triangle got to
work.



Circle made a
lantern with circles.

Triangle made one
with triangles.

WHO WILL WIN?

Mr. Square and Mrs. Rectangle said, "Isn't it boring to use the same shapes all the time?"

"Let us try something new!" said Circle.

Together, they made a lantern with circles and triangles.



Mr. Square loved the new lanterns. Who do you think won the competition?



- What is the character and setting of the story.
- Draw your own lantern using shapes.

Weekly Reflection

Did I enjoy learning this week?



What are some new things I learned?

What did I do well?

What can I do better next week?

Week 4 Overview



Project

Patterns Everywhere

Explore patterns around you.

Story Time

Explore patterns with Paul, the Pattern Detective.

Shape Patterns

Explore patterns with different shapes.

Free Flow

Create shapes and patterns with your hands.

My Habits

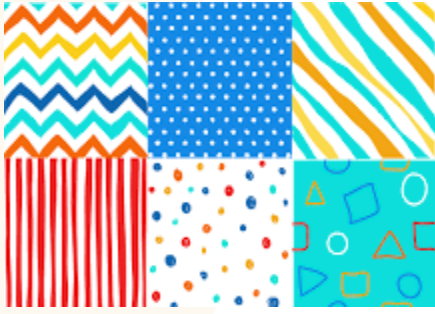
Observe patterns in your daily actions and behaviour.

Complete the Pattern

Observe and continue different patterns.

Materials Needed

- Paper
- Pencil



Patterns Everywhere

How can patterns help us understand the world?

Patterns are things, numbers, or shapes that repeat.

Circle what will come next in these patterns.

Draw 3 other patterns you see around you.

★ ▲ ★ ▲ ★	<div>★</div> <div>▲</div> <div>or</div>
■ ☾ ■ ☾ ■ ☾ ■	<div>■</div> <div>☾</div> <div>or</div>
⬠ ♥ ⬠ ♥ ⬠ ♥	<div>⬠</div> <div>♥</div> <div>or</div>
♥ + ♥ + ♥	<div>+</div> <div>♥</div> <div>or</div>

Patterns Around Us




Days and nights repeat and happen regularly as a pattern. Observe the sky. Do you see patterns in the clouds? What are some other patterns you see around you?

MY HABITS



Let us observe patterns in our daily actions. Fill the table below.
(Add your own questions too.)



Question	<div><div>✓ I did</div><div>✗ I didn't</div></div>				
	Day 1	Day 2	Day 3	Day 4	Day 5
Did I wake up early?					
Did I get angry?					

Continue tracking your habits over the next 2 weeks.

After each week, list 2 observations this way:




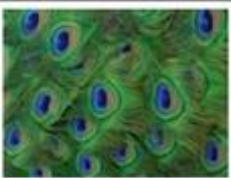












“When I _____, then _____ happened.”
(Example: “When I didn’t sleep well, then I woke up irritated.”)

Are there “good” or “bad” habits?

Patterns Everywhere

Patterns in Nature


Name and match the animal with the pattern on their skin.

Find 3 patterns in nature and draw them.

Patterns in our Clothes

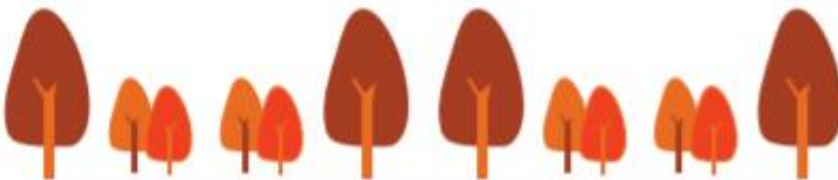
Observe the shapes and designs that repeat in your clothes or other objects at home. Draw at least three such patterns in the boxes below.



Example

COMPLETE THE PATTERN

Circle the repeating item and continue the pattern 2 more times. One has been done for you.



Patterns Everywhere

Patterns in Music

Which is your favourite song? Sing it out loud!
Can you identify a pattern in it?

Let's make music based on the code!

A



Snap your fingers.

B



Clap your hands.

C



Stomp your feet.

D



Tap your thighs.

Try these patterns!

C

A

D

D

C

A

B

B

D

A

A

B

B

A

A

C

C

B

B

A

B

B

C

C

D

D

Create your own code and music pattern.

FREE FLOW

Scribble freely inside these boxes.

with your left hand

with your right hand

Do you observe any pattern?

Patterns Everywhere

Make a pattern with any 3 items in your home.

Example:



What comes next in these letter patterns?

A B A B A B _____ , _____ , _____ , _____

K L L K L L K L L _____ , _____ , _____

P P Q P P Q _____ , _____ , _____ , _____

What comes next in these number patterns?

1 0 1 0 1 0 1 _____ , _____ , _____ , _____

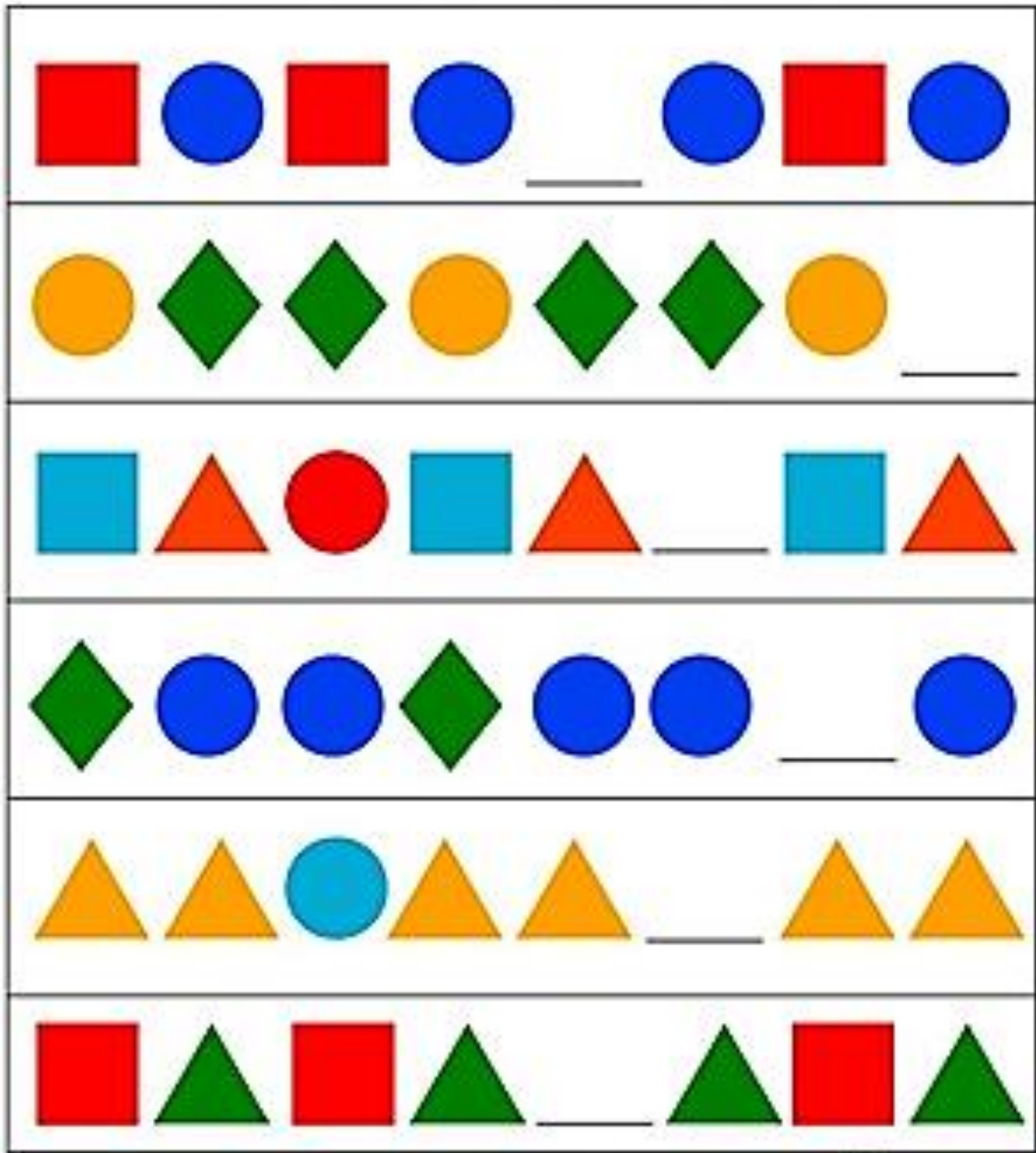
2 3 5 2 3 5 _____ , _____ , _____ , _____

5 5 9 2 5 5 9 2 _____ , _____ , _____ , _____

Make your own number, letter, and shapes patterns.
Challenge your family or friends to complete it!

SHAPE PATTERNS

Draw the missing shapes in the following patterns



Create a pattern using 2 shapes.

Patterns Everywhere

Exercise Patterns

Give a number code to 5 different body movements. Example:



Make 3 of your own exercise patterns! Example:

Repeat each
pattern **4 times**.



Teach the exercise patterns to your friends and family!

Dance Pattern

Select a song to dance to. Create a code for different steps and make your own pattern. Teach the dance to your family!



- Did they enjoy the exercise and dance?
- Were they able to follow the pattern?
- Are patterns important in our lives? Why or why not?

PAUL, THE PATTERN DETECTIVE



Paul loves searching for patterns. "I am going to be a pattern detective today! Let's find patterns!" said Paul.

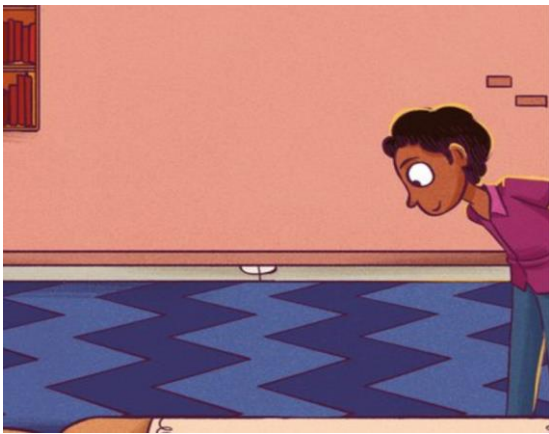
Paul found a pattern hanging on the tree. It is called a hive and bees live in it. It is made up of many hexagons stuck to each other. A hexagon is a shape with 6 sides.



Before going inside the house, he notices that the bricks of house make a pattern.

The bricks are brown, and in the shape of a _____. It has _____ sides.

PAUL, THE PATTERN DETECTIVE



Inside the house, Paul saw a pattern on the carpet.

The carpet's colour is blue.

He went to the kitchen and saw a pattern on the table.

"What is this fruit?" Paul asked his Mom. "It is a _____," she said. "It is _____ in colour."



The next day at school, he told his friends all about the patterns he found.

"Join me today! Let's all be pattern detectives!" said Paul.

- Where did Paul see patterns?
- Where do you see patterns around you?
- Draw your favourite pattern.

Weekly Reflection

Did I enjoy learning this week?

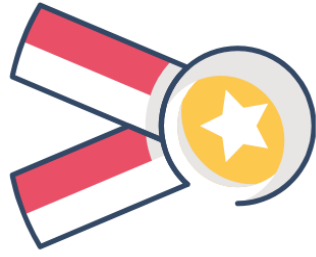


What are some new things I learned?

What did I do well?

What can I do better next week?

CERTIFICATE OF COMPLETION



This certificate is awarded to

for the successful completion of the **Numeracy** workbook.



التعليم	education
فوق	above
الجميع	all

Facilitator

Attributions

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Pg. 39, 40: Who Will Win? (English), Written by Alisha Berger Illustrated by Manavee Chadrasena, Re-levelled by EAA, published by Pratham Books (© Pratham Books, 2006) under a CC BY 4.0 license on StoryWeaver.

Pg. 9, 23, 35, 48: These activities were designed by Dream A Dream, India.

Pg. 52, 53: Pranav, The Pattern Detective (English), Written by Aditya Swaminathan Illustrated by Jemma Jose, Re-levelled and re-named by EAA, published by Pratham Books (© Pratham Books, 2006) under a CC BY 4.0 license on StoryWeaver.

