

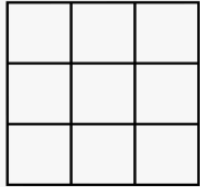
## BONDING WITH NUMBERS (LEVEL 1)

<b>Description</b>	Learners will play & design his/her games to grasp the concept of number bonds (1-10) while learning simple addition for numbers up to 10.
<b>Leading Question</b>	Can you use numbers to create other numbers?
<b>Total Time Required</b>	4 days, 1 hour per day
<b>Supplies Required</b>	Cardboard, paper, glue or tape, pencil, scissors, colors, any container, rectangular shaped household item, item with straight edge or ruler, plate (paper or plastic), counters (buttons ,beans, stones )
<b>Learning Outcomes</b>	Learner will be able to <ul style="list-style-type: none"> <li>- Count and write numbers from 0 to 10.</li> <li>- Add numbers up to 10</li> <li>- Develop and recognize different number combinations and number bonds for numbers 1 - 10</li> <li>- Enhance their critical thinking, creativity and communication skills</li> </ul>
<b>Previous Learning</b>	Count numbers up to 10

### DAY 1

Today you will learn simple addition for numbers up to 5 & number bonds for numbers 3-5

<b>Suggested Duration</b>	<b>Activity and Description</b>
<b>10 minutes</b>	<p>Introduction:</p> <p>Do you know what the phrase part of the whole means?</p> <p>Can you say or draw <i>part</i> of the following objects:</p> <p>1. Tree, 2. Bed, 3. T-shirt</p>

	<p>What is the relationship between the tree and the leaf? Bed and the leg? Sleeve and the t-shirt?</p> <p>(A tree is the whole and the leaf is a <i>part</i> of it, bed is the whole and a leg is a <i>part</i> of it, and t-shirt is a whole and a <i>sleeve</i> is a part of it)</p>															
<p><b>15 minutes</b></p>	<p>Bingo:</p> <p>Find a parent or sibling to play bingo with and review numbers 1-20.</p> <p>Draw a 3x3 grid of squares like the one shown to the right with the help of an adult on cardboard or on the sand. Each player must have a 3x3 grid with 9 different numbers from 1-20 and a pencil. You can use your fingers if the grid is done on sand).</p>  <p>Ask your Parents or partner to call out a number and if that number is on your bingo sheet, then you should cross it out. A player gets bingo (wins) when they cross out all the numbers in a horizontal, vertical, or diagonal line.</p>															
<p><b>15 minutes</b></p>	<p>Introduction to Addition:</p> <p>Draws a table with the help of an adult using counters (anything can be used as a counter - stone, sticks, pencils, or any other household items)</p> <p>To discover the sum of two numbers (from 1-5)</p> <table border="1" data-bbox="451 1327 1396 1623"> <thead> <tr> <th>First Number of counters (count)</th> <th>Second number of counters (count)</th> <th>Count of the counters of the first column and second column together</th> </tr> </thead> <tbody> <tr> <td>1 Stone</td> <td>1 Stone</td> <td>1+1=2 stones</td> </tr> <tr> <td>1</td> <td>2</td> <td>1+2=3</td> </tr> <tr> <td>1</td> <td>3</td> <td>1+3=4</td> </tr> <tr> <td>1</td> <td>4</td> <td>1+4=5</td> </tr> </tbody> </table> <p>You can do the same activity using your fingers with each hand representing one of the two columns/counters of the table above. Use your fingers to represent the number of each object and then count all the raised fingers to</p>	First Number of counters (count)	Second number of counters (count)	Count of the counters of the first column and second column together	1 Stone	1 Stone	1+1=2 stones	1	2	1+2=3	1	3	1+3=4	1	4	1+4=5
First Number of counters (count)	Second number of counters (count)	Count of the counters of the first column and second column together														
1 Stone	1 Stone	1+1=2 stones														
1	2	1+2=3														
1	3	1+3=4														
1	4	1+4=5														

	find the total.																		
<b>20 minutes</b>	<p>Introduction to number bond:</p> <p>Draw 3 people – the first person you should draw is yourself. Person 2 is your father (or a sibling) and person 3 is your mother (or a grandparent). Next, get 4 counters and write the number 4 next to them. Imagine you have 4 stones/oranges/sweets/fruits/any other item and had to split them between your mother and father (or any other family member)– in how many ways can you divide this number? e.g. if you gave your father 1 stone, your mother will have 3.</p> <p>Draw a table to record the results</p> <table border="1"> <thead> <tr> <th>I had</th> <th>I gave my mother (or grandparent)</th> <th>I gave my father (or sibling)</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>1</td> <td>3</td> </tr> <tr> <td>4</td> <td>2</td> <td>2</td> </tr> <tr> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>4</td> <td>0</td> <td>4</td> </tr> <tr> <td>4</td> <td>4</td> <td>0</td> </tr> </tbody> </table> <p>There are different ways to form the number 4. Combinations include: (1, 3), (2, 2), (3,1), (0,4) etc.</p> <p>Based on the previous discussion of a whole and part of ,what do they think is the relationship between the number 4 and the numbers 1,2,3 in the activity above.</p> <p>Repeat the same activity for numbers 3 and 5, and find out how many ways that we can form those numbers.            Number bond for 3: (1,2), (2,1), (3,0), (0,3)            Number bond for 5: (1,4), (2,3), (3,2), (4,,1), (5,0), (0,5)</p>	I had	I gave my mother (or grandparent)	I gave my father (or sibling)	4	1	3	4	2	2	4	3	1	4	0	4	4	4	0
I had	I gave my mother (or grandparent)	I gave my father (or sibling)																	
4	1	3																	
4	2	2																	
4	3	1																	
4	0	4																	
4	4	0																	

	Or use the worksheets in the appendix (Day 1 Worksheet).
<b>10 minutes</b>	<p>Reflection:</p> <ul style="list-style-type: none"> <li>● What did you learn today?</li> <li>● What did you learn about numbers today?</li> <li>● What else would you like to know? What are some questions that you have?</li> </ul>

## DAY 2

Today you will create number bonds for numbers 6 & 7.

<b>Suggested Duration</b>	<b>Activity and Description</b>
<b>15 minutes</b>	<ol style="list-style-type: none"> <li>Trace and write the new vocabulary from day 1 activities               <ol style="list-style-type: none"> <li>Square</li> <li>Tree</li> <li>Bed</li> <li>Shirt</li> </ol> </li> </ol> <p>Ask a parent or family member to write these words out for you in a dotted format so you can trace them out.</p> <ol style="list-style-type: none"> <li>Use those words in sentences. e.g., the shape of my window is a square.</li> </ol>
<b>10 minutes</b>	<p>Make a group number game:</p> <p>Play the following game with family members /friends:</p> <ul style="list-style-type: none"> <li>- Players walk around in a circle while clapping</li> <li>- An adult will shout "Make a group of 3", and players must quickly try to get into a group of that number</li> <li>- The players who do not get into the group or are extra in a group are out</li> <li>- Players can repeat the game to make groups of 2,3 &amp; 5 depending on the number of players</li> </ul>
<b>20 minutes</b>	<p>Repeat the same activity on day 1 to discover the number bonds for numbers 6 &amp; 7:</p>

For example the table for number bonds of 6 will be:

I had	I gave my mother	I gave my father
6	1	5
6	2	4
6	3	3
6	4	2
6	5	1
6	6	0
6	0	6

Number bonds for 6: (1,5), (2,4), (3,3), (4,2), (5,1), (6,0), (0,6).

The whole is 6 and parts are 1, 2, 3, 4, 5, 0.

Do the same activity for number 7.

Or complete the activity worksheet for Day 2 in the Appendix.

**15 minutes**

Number card game:

- Use any household items shaped like a rectangle or any other shape of your choice (e.g. a small item like a phone) to draw a rectangle on cardboard or paper
- Use the cutout to cut 28 rectangles/shape of choice in total with the help of an adult
- Write number 7 on two cards, number 6 on two cards, and 4 cards for each number from 0-5 for all the remaining cards.
- All players sit in a circle with the deck of cards placed in the middle

- Mix all cards and place them face up
- Collect two cards whose numbers together create number 6. Each player must quickly take two cards and say the number bond out loud. For example, a player picks up 2 and 4 and shouts “2, 4”! Do the same for number 7
- The fastest player will get 3 points, the second fastest will get 2 points, and the third fastest will get 1 point
- Points can be recorded in a table like the one below:

Round	Player	Points
1	Ali	3
	Sophia	1

Repeat the game for a couple of rounds. Record the points at the end of each round for each player

Present all of the day’s work to your parents or family members for feedback and suggestions for improvement. They should provide feedback using the following format:


- Praise: What did you like about the learner’s work?
- Question: Any questions or clarifications you have about the work?
- Suggestions: How can the learner need to improve their work?

## DAY 3

Today you will learn simple addition up to 10 and create number bonds for numbers 8 & 9

**Suggested  
Duration**

**Activity and Description**

<p><b>20 minutes</b></p>	<p>Create your own game similar to the ones created the day before to form numbers 2 to 7 with the help of an adult. The game could be for one number bond (e.g only for number 3) or for multiple numbers bonds for more than one number. Play the game with family members/friends. Domino blocks (where applicable can also be used instead of cards or counters).</p>			
<p><b>20 minutes</b></p>	<p>Addition machine activity:</p> <p>Create an addition machine with the help of an adult using two tubes or large pieces of paper</p> <ul style="list-style-type: none"> <li>- Fold the two pieces of paper to create a cylindrical shape and glue the two cylinders on the wall making sure that they are touching on one end, creating a V-shape</li> <li>- Underneath the two tubes, place a bucket or container. (See the image below or the appendix for other ideas on how to create addition machines)</li> <li>- Pass a number of counters or stones or any other object readily available to them through the tubes. For example, 4 stones pass through the first tube and 3 stones through the second tube. Then, count the total number of counters in the container (which will be 7 in our example).</li> <li>- Repeat the activity with a different number of counters</li> </ul>  <ul style="list-style-type: none"> <li>- Record your results in a table:</li> </ul> <table border="1" data-bbox="548 1692 1385 1822"> <tr> <td data-bbox="548 1692 829 1822">Number of counters in Tube 1</td> <td data-bbox="829 1692 1105 1822">Number of Counters in Tube 2</td> <td data-bbox="1105 1692 1385 1822">Number of counters in the container (tube 1 + tube 2)</td> </tr> </table>	Number of counters in Tube 1	Number of Counters in Tube 2	Number of counters in the container (tube 1 + tube 2)
Number of counters in Tube 1	Number of Counters in Tube 2	Number of counters in the container (tube 1 + tube 2)		

4 counters	2 counters	6

Through the activity above, you will learn how to add two numbers (up to 10).

**25 minutes**

Repeat the same activity from day 1 to discover the number bonds of numbers 8 & 9.

For example the table for number bonds of 8 will be

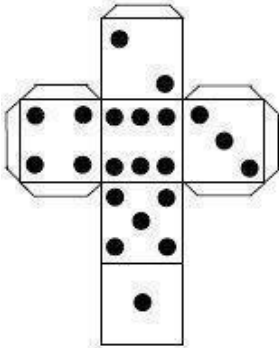
I had	I gave my mother	I gave my father
8	1	7
8	2	6
8	3	5
8	4	4
8	5	3
8	6	2
8	7	1
8	8	0
8	0	8



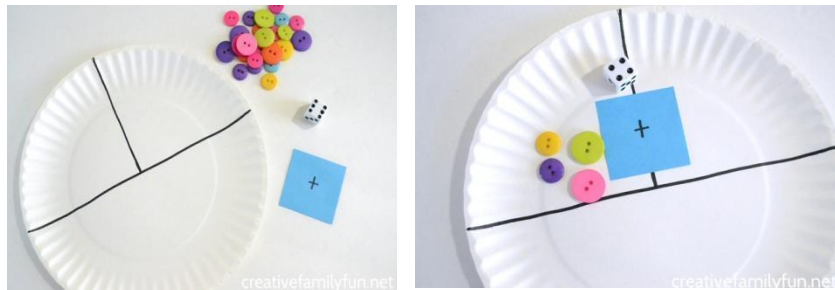
	<p>Number bonds for 8: (1,7), (2,6), (3,5), (4,4), (5,3), (6,2), (7,1), (8,0), (0,8)</p> <p>or you can complete the activity worksheet for Day 3 in the Appendix.</p>
<b>15 minutes</b>	<p>Reflect:</p> <ul style="list-style-type: none"> <li>• What was the most challenging part of the day?</li> <li>• How did you overcome challenges?</li> <li>• What did you learn and how?</li> <li>• What is something that you still have to learn or learn how to do?</li> </ul>

## DAY 4

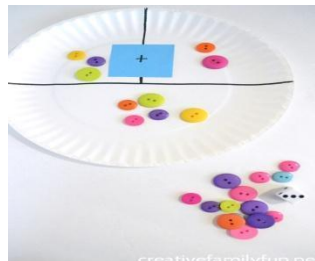
Today you will create number bonds for number 10 & add up to 10 using a paper plate & counters.

<b>Suggested Duration</b>	<b>Activity and Description</b>
<b>10 minutes</b>	<p>Design a cube:</p> <p>With the help of an adult/parent, draw, cut and glue the below to make their own dice, the lines will be folded and stuck together in the shape of a cube.</p> <div style="text-align: center;">  </div> <p>Color your dice with a color of your own choice.</p>
<b>15 minutes</b>	<p>Paper plate activity for addition up to 10:</p> <ul style="list-style-type: none"> <li>- Materials: paper plates, one or two dice, counters (small objects - buttons, stones, leaves, sticks etc.). You can also use a round piece of regular paper</li> </ul>

- With the help of an adult, you will draw a line across the center of the plate using any item that has a straight edge to divide it into two equal parts. Next draw a line to divide the top part into half again.
- Draw a plus sign “+” between the smaller halves (quarters).



- Roll the die. Place a number of counters in the first section of the plate equal to the number you got when you rolled the die. Roll the die again. Place that number of counters in the second section.
- Add the two sections together and put the correct number of buttons in the bottom half of the plate.
- Remove the buttons and play again.



**15 minutes**

Repeat the same activity from day 1 to discover the number bonds for number 10.

The whole is 10 and the parts are 1, 2, 3, 4, 5, 6, 7, 8 & 9. You can complete the worksheet in the appendix (Day 4 Worksheet).

**20 minutes**

Create a poster using drawing to explain number bonds for your favorite number using the words whole & part. Be creative and use different materials. Refer to the appendix for more ideas.

Share your poster with family members and explain how to form numbers using number bonds and the difference between a whole and a part.



number

<b>10 minutes</b>	<b>Reflection:</b> <ul style="list-style-type: none"><li>- What did you learn in the last 3 days?</li><li>- Which part did you enjoy?</li><li>- Which part did you find difficult?</li><li>- What are some number parts of number 5? List at least two parts</li><li>- What are parts of number 8? List at least two parts</li></ul>
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## ASSESSMENT CRITERIA

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- Adding numbers up to 10 accurately
- Creativity in designing number bond poster
- Recognizing number bonds of numbers 1-10 accurately

## ADDITIONAL ENRICHMENT ACTIVITIES

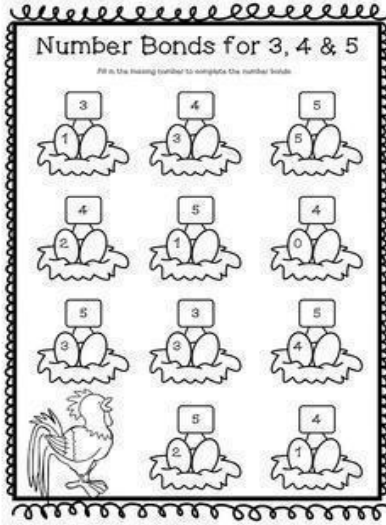
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- Learner can find out the number bonds of number 11-20

## DAY 1 WORKSHEET
















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<https://www.pinterest.com.au/pin/69383650497554114/>



Name \_\_\_\_\_

### Apple Addition

  $2 + 3 = \underline{\quad}$	  $1 + 4 = \underline{\quad}$
 $4 + 0 = \underline{\quad}$	  $3 + 1 = \underline{\quad}$
  $2 + 2 = \underline{\quad}$	  $3 + 2 = \underline{\quad}$
  $4 + 1 = \underline{\quad}$	  $1 + 2 = \underline{\quad}$

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## DAY 2 WORKSHEET

<https://www.pinterest.com.au/pin/69383650497554114/>

EAA welcomes feedback on its projects in order to improve, please use this link:  
<https://forms.gle/LGAP9k17fMyJrKJN7>

Number bond diagram for 7:

- $0 + 1$
- $5 + 0$
- $0 + 3$
- $7 + 0$
- $3 + 0$

NUMBER BONDS: 7  
Fill in the missing numbers

FILL IN THE MISSING PART

6	6	6
0	1	2
6	6	6
3	4	5
6	6	6
6	2	3

## DAY 3 WORKSHEET

<https://www.pinterest.com.au/pin/69383650497554114/>

EAA welcomes feedback on its projects in order to improve, please use this link:  
<https://forms.gle/LGAP9k17fMyJrKJN7>

Name: \_\_\_\_\_

Number Bonds to 8

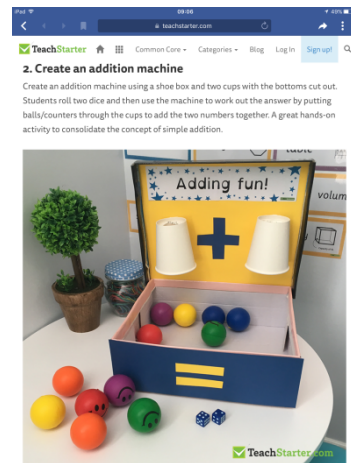
Is nine EVEN or ODD?  
Color brown if even  
and green if odd.

nine  
nine

Can you show what 9 books like  
in a 10 frame?


Complete the clover leaf number bonds below.  
The top leaf is the total, and the left and right leaves are parts of the total.

9 5	9 1 8	9 7
9 9 0	9 9 6	9 4
9 9 3	9 2	9 9 1









## DAY 4 WORKSHEET

<https://www.pinterest.com.au/pin/27232772735371575/>

Name: \_\_\_\_\_

### Domino Addition Up to 10

INSTRUCTIONS: Count and write how many dots are on each half of the domino. Next, add the numbers together to discover the total number of dots on each domino.

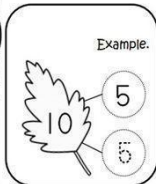
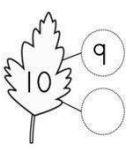

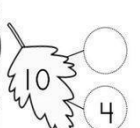
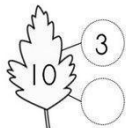
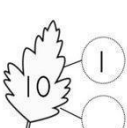
	
___ + ___ = □	___ + ___ = □
	
___ + ___ = □	___ + ___ = □
	
___ + ___ = □	___ + ___ = □

Name \_\_\_\_\_

### Leafy Number Bonds

Write the missing numbers.

Example:

www.edukidaday.com

Samples of posters to show number bonds

EAA welcomes feedback on its projects in order to improve, please use this link:  
<https://forms.gle/LGAP9k17fMyJrKJN7>

