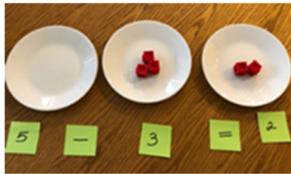
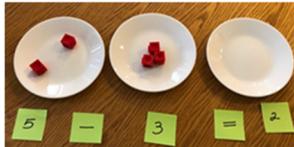
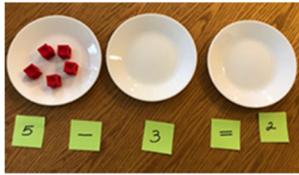




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## GiGi's Playhouse Math Curriculum Activity

<b>Activity Name</b>	Addition and Subtraction to 20
<b>Purposeful Progression</b>	<p>1.3 Addition to the sum 10            1.4 Subtraction from 10            1.6 Addition to the sum 20            1.7 Subtraction from 20</p> <p>Addition is putting together. Subtraction is taking away. Start with teaching addition and subtraction to 10 and then move to 20 when your student is ready.</p>
<b>Materials Needed</b>	<p>Three plates            Post-its, flashcards, or pieces of paper            Small items to be counted, added and subtracted – can be anything            Dice and/or Playing cards            Print addition/subtraction mats – or draw your own. Put in a page protector and use a dry erase marker. Or use plastic numbers or numbers on paper to create the problems so you don't have to have multiple copies.</p>
<b>Success Step</b>	Start each session by having the student show you something they already know!
<p><b>Procedure</b></p> 	<p><b>Show that Addition is putting together</b></p> <ul style="list-style-type: none"> <li>▪ 2 pretzels on one plate, 3 pretzels on another plate, 5 pretzels in all. You start by showing the objects being put together and then relate it to the equation.</li> <li>▪ Use any objects that are INTERESTING to your student!            Suggestions include: Blocks, poker chips, pencils, sticks, pennies, shells, rocks, balls, spoons, stuffed animals, matchbox cars, books, cereal pieces, crackers, M&amp;Ms, buttons, bows, etc.!!</li> <li>▪ Add things together throughout your day           <ul style="list-style-type: none"> <li>○ I have 2 apple slices and you have 3, how many do we have all together??</li> <li>○ I have 2 shoes and you have 2 shoes, how many shoes all together.</li> <li>○ I had 3 pencils in my backpack, and you gave me 4 more, how many pencils do I have now?</li> </ul> </li> <li>▪ Create addition problems by rolling dice and adding the numbers together</li> <li>▪ Create addition problems by choosing random playing cards and adding the numbers together</li> <li>▪ Print the addition/subtraction mats to make up own problems or just write them on a piece of paper</li> <li>▪ Make up word problems – take turns making them up and solving them</li> <li>▪ Start with adding and subtracting numbers to 10, learn number pairs and fact families to 10 and then start using numbers up to 20.</li> </ul>



### Show that subtraction is taking away

- I have 5 pegs and I want to give you 3, so now I have 2. This is represented by the equation  $5-3=2$ . You start by showing the objects moving and then relate it to the equation.
- Use any objects that are INTERESTING to your student! Suggestions include: Blocks, poker chips, pencils, sticks, pennies, shells, rocks, balls, spoons, stuffed animals, matchbox cars, books, cereal pieces, crackers, M&Ms, buttons, bows, etc.!!
- Subtract things throughout your day
  - I have 5 apple slices and I want to give you 3, how many will I have left?
  - I have 6 books and give you 2, how many do I have left?
  - I had 7 pencils in my backpack and gave you 4 more, how many pencils do I have now?
- Create subtraction problems by rolling dice subtracting – don't forget to put the bigger number first.
- Create subtraction problems by choosing playing cards – remember to put the bigger number first.
- Print the addition/subtraction mats to make up own problems or just write them on a piece of paper
- Make up word problems – take turns making them up and solving them
- Start with adding and subtracting numbers to 10, learn number pairs and fact families to 10 and then start using numbers to 20.

### Learning Number Pairs

Number pairs are simply numbers that make up a given number. They are sometimes called Number bonds.

Number pairs for 10: 1 and 9, 2 and 8, 3 and 7, 4 and 6, 5 and 5

Number pairs for 9: 1 and 8, 2 and 7, 3 and 6, 4 and 5

Number pairs for 8: 1 and 7, 2 and 6, 3 and 5, 4 and 4

Number pairs for 7: 1 and 6, 2 and 5, 3 and 4

Number pairs for 6: 1 and 5, 2 and 4, 3 and 3

Number pairs for 5: 1 and 4, 2 and 3

Number pairs for 4: 1 and 3, 2 and 2

Number pairs for 3: 1 and 2

Number pairs for 2: 1 and 1

Number pairs for 0 and 1: 0 and 1

There are many ways you can represent how these numbers are paired together. Start by picking a number and exploring all the different ways you can create that number!

- Cut egg cartons to have the number of spaces you are exploring – as you fill it up, not the different number pairs (one is the number of spaces filled and the other is the number of empty spaces).
- Choose a number
  - Start with that number of objects
  - Write down all the different ways you can make it into two groups.



**Learning Fact Families**

A fact family is a group of math facts using the same numbers. In the case of addition and subtraction you use three numbers to get four facts.

For example, the fact family for 2,8,10 is:

$2+8=10$

$8+2=10$

$10-2=8$

$10-8=2$

- Using a set of manipulatives, you can show how you can use the same three numbers to write four different equations.
- First, create addition and subtraction fact families for all numbers 0-10
- Create addition and subtraction fact families for numbers to 20

**Additional Notes**

Relax and have lots of fun teaching addition and subtraction. Start by adding and subtraction to 10, number pairs, and fact families to 10 and then move on to 20 when your student is ready.

Be creative! You can use almost anything you find at home to practice!

At GiGi’s Playhouse, we teach using the I Do, We Do, You Do Teaching Method (Archer & Hughes, 2010). Use this language to guide their efforts:

**I do**

Show the student what to do first.

“Watch me...”, “I’ll show you...”, “This is how I...”, “The way to do this....”

**We do**

Invite the student to join you and work on the task together.

“Help me...”, “Let’s...”, “We can...”, “Together we can...”

**You do**

Have the student try independently.

“Now you try...”, “You can...”, “I’ll watch you...”,

**Source of Activity**

GiGi’s Playhouse One-on-One Math Program Curriculum Guide