Learn at Home Resource Packet – General Overview
Grade 2

This New York State Next Generation Mathematics Learning Standards aligned packet of resources is designed for students and their parents who wish to support in-school learning with activities that can be done independently and/or with partner at home. The packet includes five activities that support the major mathematical work of the grade with a particular focus on building grade level numeracy. In grade 2, students' ability to fluently and mentally add and subtract within 20 as well as adding and subtraction within 100 using paper and pencil is required as it supports their ability to engage conceptually with important content of the year. These activities should each take 40-60 minutes (although many can be extended) and may be completed in any order.

How to use this guide - For each activity, you will find:
- information about the standards both content and practice that the activity supports;
- a description and/or instructions for the activity;
- materials required;
- one or more focus or discussion questions that will help deepen the learning of the activity;
- and suggestions for extending or adjusting the activity.

Activity A
Addition Bingo

Next Generation Mathematics Learning Standard (s)
Add and subtract within 20
NY-2.0A.2a Fluently add and subtract within 20 using mental strategies. Strategies could include: counting on; making ten; decomposing a number leading to a ten; creating equivalent but easier or known sums.

Mathematical Practice(s)
MP1: Make sense of problems and persevere in solving them

Activity Description
Addition Bingo is a partner game that uses addition strategies in order to find sums of 2 numbers (1-13) and get 4 in a row in order to win the game. Players must strategize winning moves based on opponent's moves in order to either block them from winning or winning themselves. This game provides kids with important fact family experience as well as with missing addend equations (for example, 9+ ?=16) which can be connected and solved with subtraction.

Materials
- Addition Bingo game board
- 2 Paper Clips
- 2 colored chips and/or markers to mark sums on the board

Questions for parents to ask while playing:
- Why did you move the clip to that number?
- Did you add the numbers in your mind?
- How will you try to block me?

Extension
This game is one that can be played over and over with a variety of partners. If getting 4 in a row is too time consuming or difficult, try to get 3 in a row.

Addition Bingo

2	3	4	5	6
7	8	9	10	11
12	13	14	15	16
17	18	19	20	21
22	23	24	25	26

1   2   3   4   5   6   7   8   9   10   11   12   13

Materials: Game board, 30 counters (15 each of two colors) and or 2 colored markers, 2 paper clips.

Rules: Player One chooses 2 numbers under the grid, and marks them with paper clips. (It's okay for both numbers to be the same.) He adds the numbers and places one of his counters on that square. Player Two changes only one of the numbers under the grid, moving one paper clip to the new number. She adds the numbers and places one of her counters on that square. The goal is to mark four squares in a row in any direction.

Activity B
A Pencil and a Sticker

Next Generation Mathematics Learning Standard (s)
Add and subtract within 20
NY-2.OA1a
Use addition and subtraction within 100 to solve one and two step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

Mathematical Practice(s)
MP1: Make sense of problems and persevere in solving them
MP2: Reason abstractly and quantitatively

Activity Description
The purpose of this task is for students to relate addition and subtraction problems to money.
Materials
- Pencil and paper
- Pencil and Sticker Task.

Questions for parents to ask while playing:
- Can you write an equation to match your answer?
- Can you solve the problem a different way?

Extension
Have your child use a store's circular to help you with your shopping. Ask them to find the cost of 2 or more products that you might buy? Make up your own questions about what you might want to buy.

Tasks adapted from: http://tasks.illustrativemathematics.org/content-standards/2/OA/A/1/tasks/1

A Pencil and a Sticker

A pencil costs 59 cents, and a sticker costs 20 cents less. How much do a pencil and a sticker cost together?

A Pencil and a Sticker

Activity C

What Are the Coins?

Next Generation Mathematics Learning Standard (s)
Work with time and money.
NY-2.MD.8
Solve real world and mathematical problems within one dollar involving quarters, dimes, nickels, and pennies, using the involving dollar bills, quarters, nickels and pennies, using ¢ (cent) symbol appropriately.

Mathematical Practice(s)
MP1: Make sense of problems and persevere in solving them

Activity Description
This activity can be done with you reading each coin question to your child and letting them work out a solution with the coins and paper and pencil if necessary. You can also let your child work through as many problems as they can on their own with a set of coins and paper and pencil.

Materials
- A collection of coins, quarters, dimes, nickels and pennies
- What are the Coins task sheet
- Pencil and paper

Extension
Work with a one dollar bill and ask for several different coin combinations to make a dollar using 4 coins, 6 coins, and 8 coins. Additional combinations that add up to 1 dollar can also be found with any number of coins.

What Are the Coins?

Ask your child the following questions:

1. I have three coins in my pocket. They are worth 7 cents. What do I have?

2. I have three coins in my pocket. They are worth 16 cents. What do I have?

3. I have three coins in my pocket. They are worth 11 cents. What do I have?

4. I have three coins in my pockets. They are worth 30 cents. What do I have?

4. I have six coins in my pocket. They are worth 30 cents. What could I have?

5. This problem has more than one answer. It is challenging for children to experience problems like this.

6. I have coins in my pocket, which have a value of 11 cents. How many coins could I have?

You get the idea! Give your child a few coins to figure out the answers.

Activity D

Billy Goes Shopping

Next Generation Mathematics Learning Standard (s)
Represent and solve problems involving addition and subtraction
NY-2.OA1a
Use addition and subtraction within 100 to solve one and two step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

Use Place Value Understanding and Properties of Operations to Add and Subtract

NY-2.NBT.6
   Add up to four two-digits numbers using strategies based on place value and properties of operations.

Mathematical Practice(s)
MP 1: Make sense of problems and persevere in solving them.
MP 2: Reason abstractly and quantitatively
MP 4: Model with mathematics

Activity Description
This is an independent activity with several solutions. Students can work to a level that is appropriate for them.

Questions for parents to ask while working on the problems:
- If you only wanted to buy one item, and get the most number of it, which would you buy?
- Can you spend the exact amount you have?   Why or why not?
- How can you keep track of what you spent and what you have left?

Materials
- 9 dimes, 50 pennies
- Billy Goes Shopping Task
- paper and pencil

Extension
Add a few more items to the list for example crayons 75¢ Change the money Billy has from 90 cents to 1 dollar and add make sure you have 10 dimes available along with the 50 pennies.

Billy Goes Shopping

Billy wants to buy some new school supplies. He has 9 dimes to spend. He needs to save 25¢ for a bag of chips for later. Look at the price list and choose some things for Billy to buy. (He can buy different things or more than one of the same thing.)

List the items you chose, along with the cost of each. Find the total. Use the dimes and pennies to figure out the change.

Find at least three ways Billy can spend his money. Remember, he needs 25¢ for a bag of chips.

Price List
Erasers 10¢
Rulers 29¢
Pencils 25¢
Pens 39¢
Book covers 20¢

Activity E:
Saving Money 2

Next Generation Mathematics Learning Standard (s)
Represent and solve problem involving addition and subtraction.
NY-2.OA.1a
Use addition and subtraction within 100 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

Mathematical Practice(s):
MP1: Make sense of problems and persevere in solving them.

Materials
- Saving Money 2 Task
- Paper and pencil

Description
The purpose of this task is for students to relate addition and subtraction problems to money and to situations and goals related to saving money.

Questions for parents to ask your child
- Can you show me another way to solve one of the card problems?

Extension
Make the problem more personal by letting your child choose a toy he/she wants and the toy their sibling or friend may want and researching the costs.

Task adapted from: http://tasks.illustrativemathematics.org/content-standards/2/NBT/A/2/tasks/1309

Saving Money 2

Louis wants to give $15 to help kids who need school supplies. He also wants to buy a pair of shoes for $39.

a. How much money will he have to save for both?

b. Louis gets $5 a week for his allowance. He plans to save his allowance every week. How many weeks does it take him to reach this goal?

c. Louis remembers his sister's birthday is next month. He sets a goal of saving $16 for her gift. How many weeks does he have to save his allowance to reach this goal? How many weeks does he have to save his allowance for all three of his goals?