THIRD SPACE LEARNING

Math Games And Activities Pack

14 Fun Math Activities and Games for the Classroom

2nd Grade

Contents

Note to Teachers

This pack is here to help you with some ideas of how to bring math into the classroom in a fun way. The challenges are not intended to be too much like 'work'. They should provide just a bit of a mathematical focus every now and then.

The activities are separated into individual activities and partner activities.

Individual activities

1 My Favorite Number

Your challenge:
How much do you know about your favorite number?

What to do:

You will need

A piece of plain paper

Colored pencils or crayons

1. What's your favorite number? Write it down in the center of a piece of plain paper (if you don't have a favorite number, pick a number at random).
2. Note down at least 20 facts about the number, creating a poster.
3. For example, if your favorite number was 20 you could write down facts like:
   - It's in the 2, 5, 1 and 10 times table
   - It's an even number
   - 12 + 8 = 20 and so on.
4. Try to make sure you have a good range of different types of facts. Be as creative as you can with how you present your work.

2 How many ways can you make...

Your challenge:

How many ways can you find to make 520?

You will need

A piece of plain paper

What to do:

1. Write 520 in the center of a piece of plain paper.
2. Around the number, write at least 20 ways to make it.
3. For example:
   - 500 + 20 + 0
   - 104 - 5
4. Try to make sure you have a good range of different types of facts.

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3 Money Problems

Your challenge:

Which combination of coins and bills can you use to make a total?

You will need

A receipt

A piece of plain paper

Colored pencils or crayons

What to do:

1. Find an old receipt for some shopping (you may need to ask an adult for this).
2. Imagine you are paying for the total on your receipt with bills and coins. How many different combinations of bills and coins could you use to pay the total exactly (not over or under).
3. On a piece of paper, stick the receipt in the middle. Around the receipt write the different combinations you could use.
4. Be creative - could you draw the coins and bills to make sure they make the correct total?

4 Tallying Totals

Your challenge:
How many items do you have in the classroom?

You will need

Challenge 4 Sheet

What to do:

1. Pick 6 items you know you have in your classroom (windows, doors, pens, pencils, people, etc).
2. Look around your classroom and complete the tally chart, showing how many of each item you have in your home.
3. When you have finished, create a bar chart of your results.

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5 How Long Did It Take? (to be completed during recess)

Your challenge:
Can you become quicker over time?

You will need

Challenge 5 Sheet
A pencil or pen
A ball
A stopwatch (on an adult's phone or tablet is fine)

Things to remember:

1. On Challenge 8 Sheet you will find some fun challenges to take part in. Have a go at each one, and time yourself, recording the time.
2. Repeat these challenges over 5 days and compare if you have become quicker.

6 Length

Your challenge:
Can you estimate and measure accurately?

You will need

A tape measure or ruler

A piece of plain paper

What to do:

1. Create a list of items you are going to measure (at least 10 items) and put them in order from smallest to largest of (at least 5 items).
2. Estimate their length.
3. Measure the lengths.
4. Compare your estimates to the real measures. How accurate were you?

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7 Get Arty!

Your challenge:
Can you create a piece of art that contains a selection of shapes?

You will need

Plain paper

Art materials

Things to remember:

1. Use at least one of each of these shapes in your art: quadrilateral, triangle, pentagon, hexagon and octagon.
2. You can create your art using any type of materials you like. You could collage, paint, colour or do anything else – it's up to you.
3. As an extra challenge, can you create a repeated pattern? This could be repeating colours or shapes.

Pair activities

8 Place Value Duel

You will need

Digit Cards Resource Sheet

Two sheets of plain paper

A partner

Your challenge:
Can you make a larger three-digit number than your partner?

How to play:

1. Get your digit cards ready. Cut them out from the Digit Cards Resource Sheet.
2. Shuffle both sets of the digit cards. You and your partner must each draw three big lines on your sheet of paper like this:

   ____ ____ ____
3. Take turns turning over a digit card and decide where in your number you are going to place the digit.
4. Put the digit in that position and tell your partner what value that digit has. For example, if you put a 2 in the tens column, you would say 'this 2 is worth 2 tens or twenty'.
5. Once you have placed a digit in your number, you can't move it! Therefore, it's important to think about the strategy you are using. Play at least six rounds.

Who will be the champion?

I played with _____

The person who won was _____

9 **One-handed Maths, Paper, Scissors – All the Threes**

Your challenge:
Have you ever played 'Rock, Paper, Scissors'? Well this is a math version of the same game!

You will need

A partner

How to play:

1. On scissors, each of you puts out between 0 and 5 fingers.
2. You then need to race to add the number of fingers you have put out with the number of fingers your partner put out (e.g. 4 + 2 = 6) and then add 5 to that answer (e.g. 6 + 5 = 11) and be the first to call out the answer.
3. The player to call the correct answer first, wins a point.
4. Record who wins each 'battle' in a simple table; the first player to 20 points wins!

I played with _____

The person who won was _____

10 Threes Tennis

Your challenge:
Who can win a match of threes tennis?

You will need

A partner

How to play:

1. Stand opposite your partner. The first player picks a number between 1 and 10 to start with and says that out loud. The other player must add 3 to the number. This becomes your running total.
2. Now it's back to the first player who adds 3 to the running total, and so on.

You win when:

- You are the first player to say a number over 100
- Your partner makes a mistake
- Your partner says 'umm'
- Your partner takes more than 3 seconds to answer.

Play at least 6 matches with your partner. Who will win the most games?

I played with _____

The person who won was _____

11 Four in a Row

You will need

A partner

A copy of Challenge 11 Sheet

A colored pencil each

Digit Cards Resource Sheet

Your challenge:
Let's play a classic game of 'four in a row' but with a math twist!

How to play:

1. Start by sitting next to your partner and putting one of the grids from Challenge 11 Sheet in between you. Then, put one set of the digit cards spread out on the table face down.

2. Take turns turning over a digit card, and add or subtract a 2-digit number. If your partner agrees that you got the answer correct, you get to colour in one of the squares that contains that number on the grid. Turn the digit card back over.

3. Then, your partner has their go.

4. The person to win is the first person to color in four squares in a row (in any direction - diagonals count!) in their color. You may want to start to think about what number you need to find to color in a certain square and then to remember which card has that number on!

5. Play the game three times. Who's going to win? What's your strategy?

I played with _____

The person who won was _____

12 Tug of War

Your challenge:

Why not play a math version of Tug of War?

You will need

Digit Cards Resource Sheet 1

A partner

Paper to keep a track of your score

How to play:

1. First, decide which player is going to 'add' and which player is going to 'subtract', then shuffle the digit cards into one pile. Write down the number 50 at the top of your piece of paper.
2. The player who is adding starts first. They turn over 1 digit card and the player who is adding adds these to 50 (e.g. 50 + 8 = 58). The rest of this calculation is your new running total.
3. The player who is subtracting goes next. They turn over a digit and subtract it from the running total.
4. Keep playing in the same way, taking it in turns to make a number and add or subtract it. If the player who is adding gets above 100 they win, and if the player who is subtracting gets below 5 they win!

Who will win the tug of war?

I played with _____

The person who won was _____

13 Matching Pairs

Your challenge:

Find the pairs, with a math twist!

You will need

Challenge 13 Sheet

A partner

What to do:

1. Cut out the cards from Challenge Sheet 13. Place the answer cards (the cards with the shaded background) spread out face down on one half of your playing area. Then place the question cards (the non-shaded cards) face down on the other half of your playing area. You need to keep the questions and answers separate.
2. Take turns with your partner to turn over a question card, and then an answer card. If the answer matches the question, you get to keep the cards and take another go. If it does not, turn them back over, and your partner takes their turn.
3. Continue playing until all questions and answers have been matched. The player with the most cards at the end of the game wins.

Play the game twice. Did you get a different winner each time?

The first time I played the game _____ won.

The second time I played the game _____ won.

14 Unicorns Versus Giants

Your challenge:
Who will win in the battle between unicorn and giant?

How to play:

You will need

Challenge 16 Sheet
A partner
A counter each (you could make your own out of paper)
Plain paper for any working out

1. Sit opposite your partner and decide who will be the unicorn and who will be the giant.
2. Place the grid from Challenge 16 Sheet in between you. The aim of the game is for the unicorn to make it to the giant's home on the other side of the grid. The giant's aim is to stop the unicorn from getting there by ending up on the same hexagon on the grid as the unicorn.
3. The unicorn goes first. Place your counter on one of the hexagons on the 'unicorn's home' side of the paper and solve the equation in the hexagon. If the calculation is correct (your partner needs to check and agree) you get to move to that hexagon.
4. The giant starts in the same way from the 'giant's home' side of the paper.
5. On the next turn, each player can move to one of the hexagons next to the hexagon they are on. If they get the answer correct, they move to that hexagon; if they don't get it correct, they stay as they are!
6. Have a think about your strategy – where will you move next? Try to play the game at least two times.

The first time I played, I played against _____

and the person who won was _____

The second time I played, I played against _____

and the person who won was _____

Challenge 4 Sheet Tallying Totals

A Use the table below to help you record your data.

Item	Tally	Total

B Make a bar chart of your results for each person's totals

Put your results for the total amount of washing up made into a bar chart. Remember to think about the scale you are going to use for your vertical axis and to give the chart a title.

Bar Chart Title: _____

Challenge 5 Sheet How Long Did It Take?

(to be completed during recess)

Can you improve your time over 5 days?

Challenge A: Jump 20 times.
Challenge B: Hop 25 times without falling over.
Challenge C: Throw a ball up in the air and catch it 10 times in a row.
Challenge D: Do 5 kick-ups without the ball hitting the ground.
Challenge E: Say your alphabet backwards as fast as you can.
Challenge F: Do 50 star jumps.
Challenge G: Spin around 5 times and then jump to the other side of your outside area.

	Time taken (minutes)				
Challenge	Day 1	Day 2	Day 3	Day 4	Day 5
A					
B					
C					
D					
E					
F					
G					

Compare the time it took at the start and end of the 5 days.
Did you get quicker in any activity?

Challenge 11 Sheet Four in a Row

Game 1

45	10	15	25	20	30
40	35	20	15	5	10
15	10	0	25	15	35
35	40	5	10	45	5
5	0	10	20	30	35
15	25	5	0	10	20
25	20	5	10	30	45

Game 2

45	10	15	25	20	30
40	35	20	15	5	10
15	10	0	25	15	35
35	40	5	10	45	5
5	0	10	20	30	35
15	25	5	0	10	20
25	20	5	10	30	45

Challenge 11 Sheet Four in a Row

Game 3

45	10	15	25	20	30
40	35	20	15	5	10
15	10	0	25	15	35
35	40	5	10	45	5
5	0	10	20	30	35
15	25	5	0	10	20
25	20	5	10	30	45

Game 4

45	10	15	25	20	30
40	35	20	15	5	10
15	10	0	25	15	35
35	40	5	10	45	5
5	0	10	20	30	35
15	25	5	0	10	20
25	20	5	10	30	45

Challenge 13 Sheet Matching Pairs

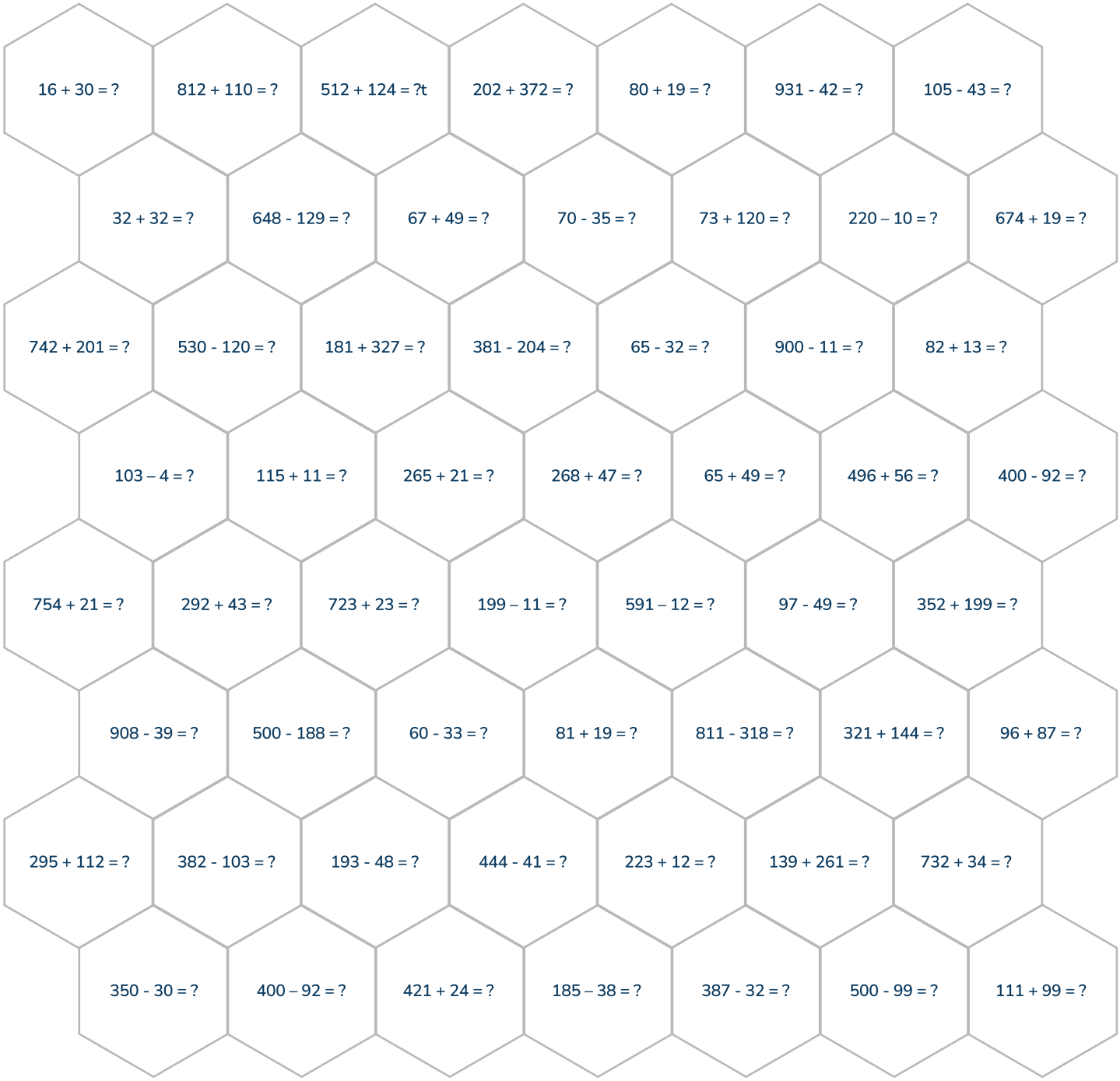
42 - 34 =	35 + 10 =	76 - 56 =	29 + 21 =
19 + 11 =	81 - 67 =	48 + 13 =	54 - 38 =
65 - 47 =	59 + 33 =	41 - 26 =	52 + 36 =
18	20	45	61

Challenge 13 Sheet Matching Pairs

30	8	50	14
88	15	16	92

Challenge 14 Sheet Unicorns vs Giants

Unicorn's House



Giant's House

Resource Sheet 1

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

Resource Sheet 1

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

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