

# INSPIRE MATHS GAMES PACK for PUPIL BOOKS 3A and 3B



# Inspire Maths games pack for use with pupil books 3A and 3B

This pack includes games from *Inspire Maths* Pupil Books 3A and 3B to use at home to reinforce maths taught at school.

## The benefits of playing games

Play is important and we know that it is essential for cognitive growth. We are all aware of how crucial this is in the early years, but games can provide experience beyond early childhood and into the teens and indeed adulthood. As well as contributing to cognitive growth, play also contributes to social, emotional and wellbeing in children and adults alike.

Until now there have been a variety of factors that have influenced how children play and the time we put aside to play. Some of these can be attributed to a hurried life style, changes in family structures, families not living in family groups where other family members such as grandparents are accessible, the move towards social media and parents' fear of allowing children to play outside with friends. However in these unprecedented times we find ourselves in currently, in many ways, life has slowed down; children are playing together and of course parents have more time at home with the family and they are looking for activities and games to play.

Playing games teach children how to take turns, be patient, understand that winning is not the important thing. Games can be educational and fun. Playing games can give us a feeling of success and resilience, which can translate into other areas of our lives. Play gives adults the space to communicate with their children and vice versa. Games encourage children to play together and be sociable. Playing games can also help to develop children's attention spans.

## Using Inspire Maths games and activities for problem solving and fluency practice

These engaging games and activities encourage children to apply concepts they have been learning at school. These games and activities provide a context for engaging children with opportunities for frequent practice. Through playing games with others, children develop a variety of important skills such as critical thinking, problem solving, creativity and teamwork.

Playing these games can lay the foundation for understanding mathematics. Children practise using mathematical language in context. They can also practise essential life skills such as telling the time and using and manipulating money. Playing a game may help them understand a new concept or look at something with a different perspective to develop their understanding further.

# Snap a thousand! Addition of numbers within 10 000

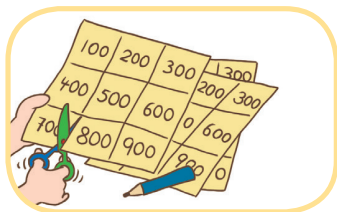
## Game



### 6 Snap a thousand!

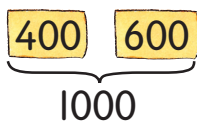
How to play:

- 1 Make hundreds cards from 100 to 900. Make three sets for each number.



- 3 All players show one card at the same time. Check if any two of the cards shown add up to 1000.

#### Example



The player to call out "thousand snap" first can collect the two cards that make the thousand pair.

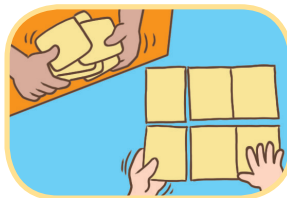
- 5 The game ends when no more thousand pairs can be found.

**Players:** 2 to 4

**You will need:**

- hundreds cards from 100 to 900 (three sets)

- 2 Shuffle the cards. Each player picks six cards.



- 4 When no more thousand pairs can be found from the cards shown, all players will show another card and play on.



The player who collects the most thousand pairs is the winner.

## Snap a thousand! Addition of numbers within 10 000

<b>100</b>	<b>200</b>	<b>300</b>
<b>400</b>	<b>500</b>	<b>600</b>
<b>700</b>	<b>800</b>	<b>900</b>

<b>100</b>	<b>200</b>	<b>300</b>
<b>400</b>	<b>500</b>	<b>600</b>
<b>700</b>	<b>800</b>	<b>900</b>

<b>100</b>	<b>200</b>	<b>300</b>
<b>400</b>	<b>500</b>	<b>600</b>
<b>700</b>	<b>800</b>	<b>900</b>

# Snap a thousand! Addition of numbers within 10 000

## What you will need

Three sets of number cards from 100 – 900 cut from the template provided.

100	200	300
400	500	600
700	800	900
100	200	300
400	500	600
700	800	900
100	200	300
400	500	600
700	800	900

## How to play

This game can be played with two to four players. It is like playing snap but instead of matching cards the children will be making 1000 from two cards. The number cards are placed down and children each turn one card over. They call snap when they see two numbers which when added together make 1000. The game ends when no more thousand pairs can be found. The player who collects the most pairs wins.

# Go for the smallest! Subtraction of numbers within 10 000

## Game



### 4 Go for the smallest!

How to play:

**Players:** 2 to 4

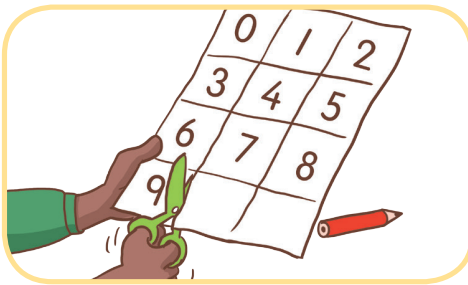
**You will need:**

- number cards from 0 to 9 (four sets)

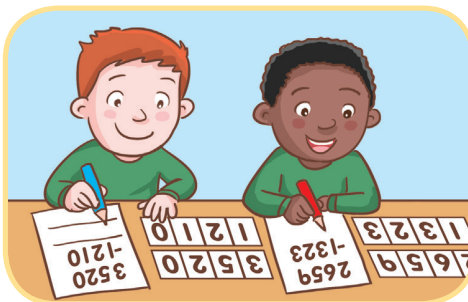
- 1 Make four sets of number cards from 0 to 9.



- 2 Shuffle the cards. Each player picks eight cards.



- 3 Arrange your cards to make two 4-digit numbers.



- 4 Subtract the numbers.



The player with the smallest answer wins!

Practice Book 3A, p.51

# Go for the smallest! Subtraction of numbers within 10 000

## What you will need

Four sets of number cards 0 to 9. These can be cards made and cut out from card.

## How to play

The objective of the game is to encourage children to create their own questions and then practise subtracting numbers. In this game they will be making and working with 4 digit numbers. You could adapt this to include 3 digit numbers only, if needed. Shuffle the number cards and place them down on the table. Each child picks up 8 cards. They make two 4 digit numbers and find the difference. The player who generates the smallest answer wins the game. As you continue to play you might want to exclude 'zero'. To do this, children will need to think carefully about where they place the numbers.

# Find the remainder! Division

## Game



**Players:** 2 to 4

**You will need:**

- cubes
- number cards from 10 to 50
- spinner with numbers 2, 3, 4 and 5

### 5 Find the remainder!

How to play:

- 1 Shuffle the number cards. Pick a card to get a number.



- 2 Select the number of cubes shown on the card. For example, for the number card 32:

- select 32 cubes
- arrange them in tens and ones.

You will have 3 tens and 2 ones.



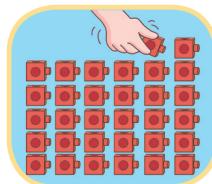
- 3 Spin the spinner to get another number.



- 4 Divide the cubes by the number shown on the spinner, and find the remainder. For example, if the pointer points to 5:

- rearrange the 32 cubes into 5 equal groups
- count the cubes in each group and the remaining cubes.

You will have 2 remaining cubes.



- 5 The other players check the answer using division.

$$\begin{array}{r} 6 \\ 5 \overline{) 32} \\ \underline{30} \\ 2 \end{array}$$

- 6 Take turns to play. Play two rounds each.

The player with the most correct answers wins!

Practice Book 3B, p.43

# Find the remainder! Division

## What you will need

Cubes, buttons or pasta shells (50 per group or player). Number cards from 10 to 50 which you can make from card or even use an old pack of cards and write these numbers on the back of the cards in felt tip. A spinner with numbers 2, 3, 4 and 5. If you haven't got a spinner you can make a spinner by drawing on a plate with felt tip and dividing it into quarters. Place a paper clip at the centre of the plate and put the point of a pencil through the end of the paper clip that you will place at the centre of the plate. Spin the paper clip to generate the numbers. If you do not have paper clips you can make an arrow from a piece of card and do the same thing.

## How to play

This game is for 2 to 4 children. It will help children to understand division with remainders, whilst using concrete representations to help support their understanding. This game can also help to strengthen the use of multiplication facts for division. The shuffled cards are placed face down on the table and children take it in turns to pick a card. They will then count out the equivalent number of cubes or shells to represent the number. The player then spins the spinner and this number will be the number that will divide into the number on the card. This number will be the number of groups the cubes or shells will be divided between. There may be a remainder. If there is, you should talk about why. The other players check the division and the answer.

# Let's add mentally! Mental calculations

## Game



### 5 Let's add mentally!

How to play:

**Players:** 2 to 4

**You will need:**

- cards with numbers from 46 to 55

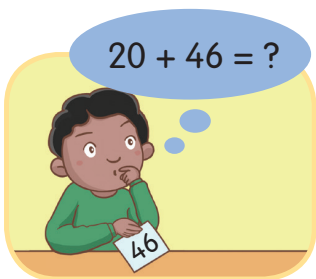
- 1 Player 1 calls out a number between 10 and 100.



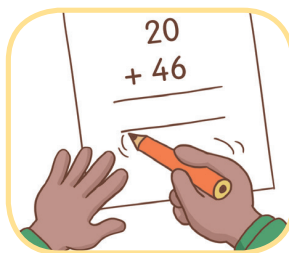
- 2 Player 1 then picks a card.



- 3 Player 1 adds the two numbers mentally and tells the other players their answer.



- 4 The other players check the answer. Player 1 gets 1 point if their answer is correct.



- 5 Return the card to the pack and shuffle it. Take turns to play. Play three rounds each.



The player with the most points wins!

Practice Book 3B, p.79

# Let's add mentally! Mental calculations

## What you will need

Cards labelled with numbers 46 to 55

## How to play

This game is for between 2 to 4 players. Children will be working on various types of addition problems involving two 2-digit numbers. Player one calls out a number between 10 and 100. The next player chooses a number from the cards that are face down on the table. Player one adds the two numbers mentally whilst player two writes down the addition and checks it on paper. The cards are returned to the pack, shuffled and placed on the table. The player will earn a point for each correct answer. The players will take turns and the player with the most points wins.

# Show and tell the time! Time

## Game



### 8 Show and tell the time!

**Players:** 2

**You will need:**

- a clock with movable minute and hour hands

**1** Player 1 shows a time by moving the hour hand and the minute hand.



**2** Player 2 tells the time in two different ways.



- two fifty
- 10 minutes to 3

**3** Player 1 checks the answer. Player 2 gets 1 point for a correct answer.



**4** Player 2 shows the time and Player 1 tells the time.



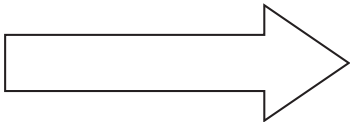
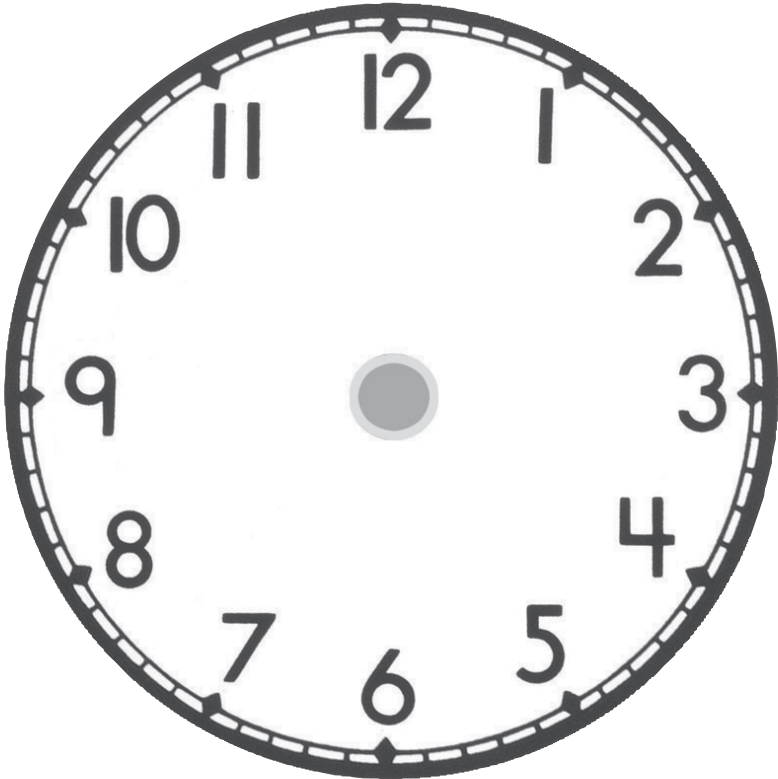
- five seventeen
- 17 minutes past 5

**5** Take turns to show and tell the time. Play five rounds.

The player with the most points wins!

Practice Book 3D, p.7

Show and tell the time! Time



# Show and tell the time! Time

## What you will need

A clock with minute and hour hands. If you don't have a clock available then you can make one. You can do this by drawing on a paper plate or a circular piece of card. This would be a good exercise for your children to do. You will need to attach the hands so that they can be moved. A paper fastener is ideal for this. If you do not have a paper fastener, then the hands can simply be placed on the clock to show the time.

## How to play

Encourage children to play the game and practise telling the time in two different ways. The most supportive way to play this is to use a clock that the children can actually use and control. This will give them the opportunity to show the positions of the hands at a particular time and see how the hands work together. The first player will move the hands to show a particular time. The second player will say the time in two different ways.

# Time and Bingo. Time

## Game



### 9 Time bingo!

How to play:

- 1 Work in groups. Group 1 draws a card from the stack of time cards.

These are examples of the two types of time cards:

$$1\text{ h } 25\text{ mins} = \boxed{\phantom{00}}\text{ mins}$$

$$75\text{ mins} = \boxed{\phantom{00}}\text{ h } \boxed{\phantom{00}}\text{ mins}$$

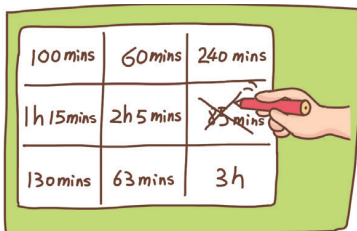
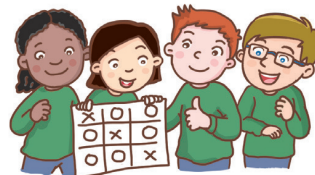


- 2 For a time card that shows time in hours and minutes, change the time to minutes. For example,  
 $1\text{ h } 25\text{ mins} = 60\text{ mins} + 25\text{ mins}$   
 $= 85\text{ mins}$

For a time card that shows time in minutes, change the time to hours and minutes. For example,  
 $75\text{ mins} = 60\text{ mins} + 15\text{ mins}$   
 $= 1\text{ h } 15\text{ mins}$



- 3 The groups take turns to mark their answers on the bingo card. Group 1 marks their answers with a cross, while Group 2 marks their answers with a circle.



- The first group to mark three correct answers in a straight line ( $\updownarrow$ ,  $\leftrightarrow$ ,  $\nearrow$ ) on the bingo card wins.

## Time and Bingo. Time

Time cards

$$1 \text{ h } 25 \text{ mins} = \boxed{\phantom{00}} \text{ mins}$$

$$1 \text{ h } 40 \text{ mins} = \boxed{\phantom{00}} \text{ mins}$$

$$1 \text{ h} = \boxed{\phantom{00}} \text{ mins}$$

$$4 \text{ h} = \boxed{\phantom{00}} \text{ mins}$$

$$2 \text{ h } 10 \text{ mins} = \boxed{\phantom{00}} \text{ mins}$$

$$1 \text{ h } 3 \text{ mins} = \boxed{\phantom{00}} \text{ mins}$$

$$180 \text{ mins} = \boxed{\phantom{00}} \text{ h}$$

$$75 \text{ mins} = \boxed{\phantom{00}} \text{ h } \boxed{\phantom{00}} \text{ mins}$$

$$125 \text{ mins} = \boxed{\phantom{00}} \text{ h } \boxed{\phantom{00}} \text{ mins}$$

Bingo card

<b>100 mins</b>	<b>60 mins</b>	<b>240 mins</b>
<b>1 h 15 mins</b>	<b>2 h 5 mins</b>	<b>85 mins</b>
<b>130 mins</b>	<b>63 mins</b>	<b>3 h</b>

# Time and Bingo. Time

## What you will need

Time cards and bingo cards.

## How to play

This game can be played with two children or with two groups. Children will be converting minutes to hours and also hours to minutes. Cut out the time cards and place them in a stack or face down on the table. There is one bingo card between the two children or the two groups. The first group selects a time card and the second group converts the time and checks the answer on the bingo card. They take turns to do this. The first group to mark three correct answers in a straight line, vertically, horizontally or diagonally wins.

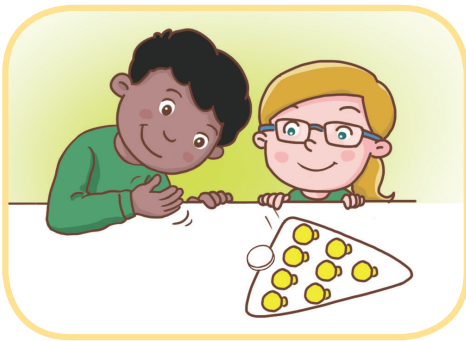
## Game



### 6 Time shuffle!

How to play:

- 1 Player 1 flicks a counter until it lands on a clock picture on the game board.



- 3 Player 1 flicks the counter again to get another time value. For example, if they get the value 2 h, they add up the two time values:  
 $50 \text{ mins} + 2 \text{ h} = 2 \text{ h } 50 \text{ mins}$



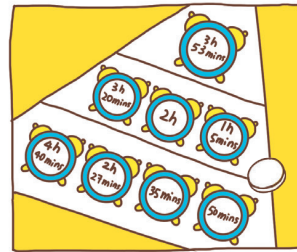
- 5 Take turns to play.  
Play five rounds each.

**Players:** 2

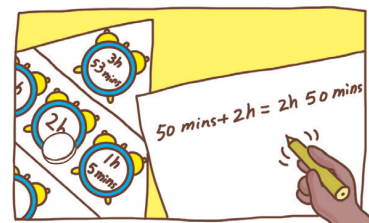
**You will need:**

- a counter
- game board

- 2 Player 1 gets the time value that is shown on the clock picture.  
For example, they get the value 50 mins if the counter lands on the clock picture showing 50 mins.



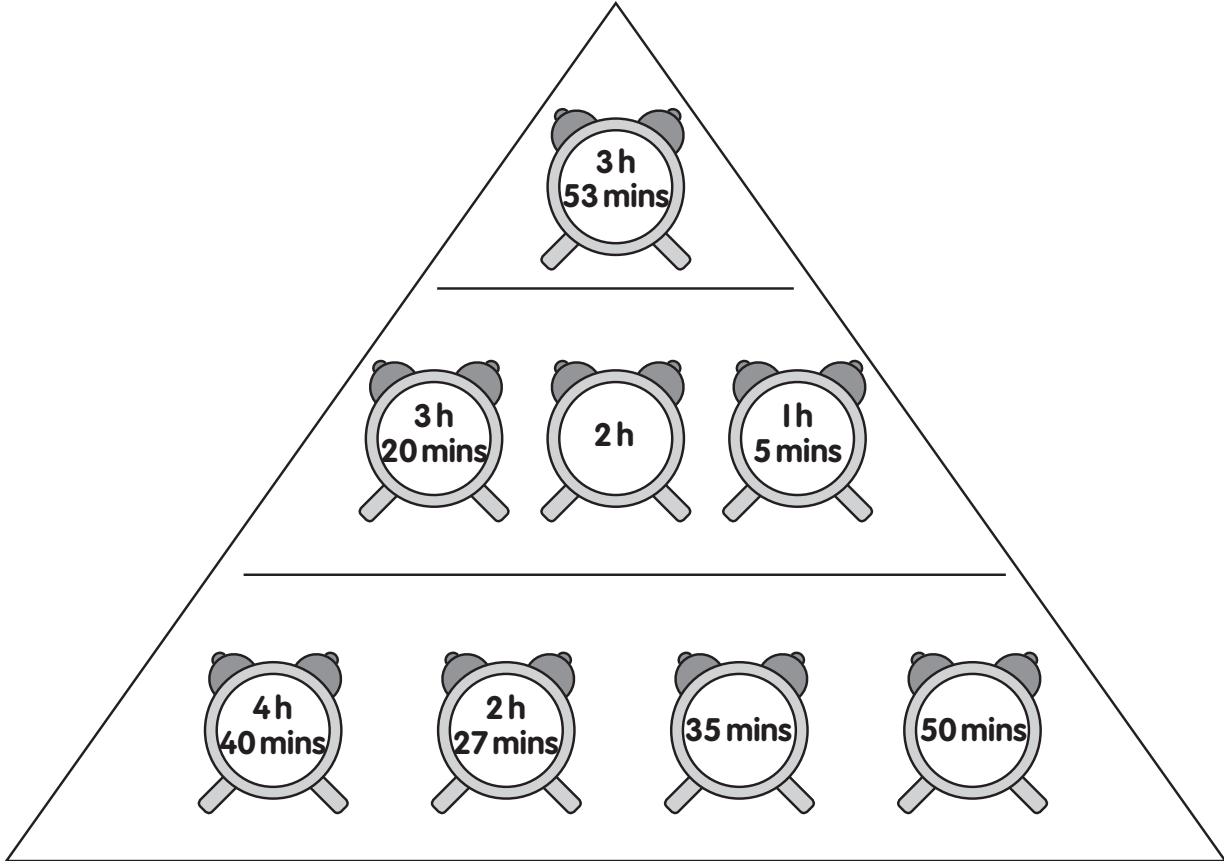
- 4 Player 2 checks the answer.  
Player 1 gets 1 point if their answer is correct.



The player with the higher score wins!

Practice Book 3D, p.11

# Time shuffle. Time



# Time shuffle. Time

## What you will need

Counters and the game board. Players will be flicking the counters onto the game board. If you do not have any counters you can always flick a piece of rolled up paper.

## How to play

This game is for two or more players. Children will be practising adding time intervals, some in minutes, in hours and some in hours and minutes. Each player flicks the counter onto the board twice. They will then add the two time values the counter has landed on. The next player checks their answer. The players will get a point for each correct answer.

# Let's subtract. Time

## Game



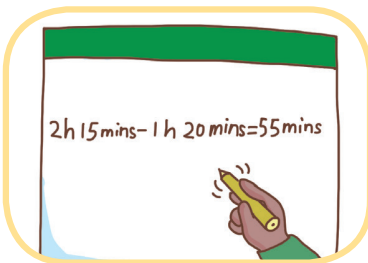
### 6 Let's subtract!

How to play:

- 1 Each player writes four subtraction questions on time. Write one question on each paper strip. An example of a subtraction question is:  
 $2\text{ h }15\text{ mins} - 1\text{ h }20\text{ mins} = \square$



- 3 Player 1 picks a question from the bag. They work out the answer.



- 5 Take turns to play. Play four rounds each.

The player with the highest score wins!

**Players:** 4

**You will need:**

- paper strips
- a bag

- 2 Put all the questions into a bag.



- 4 The other players check the answer. Player 1 gets 1 point if the answer is correct.

I got it right!



Practice Book 3D, p.13

# Let's subtract. Time

## What you will need

A bag or envelope and strips of paper.

## How to play

In this game, children are practising subtracting time. The game is for four players but could be played with two or more players. Each player writes one or more subtraction questions on strips of paper. The strips are placed in the bag or envelope. Players take turns to take out a strip of paper and work out the answers. Points are awarded for each correct answer.