



MATHEMATICS COLLABORATIVE LEARNING SESSION

10 August 2017

Teachers:

Diane Read, Christina Elder, Carol Myburgh, Stephanie Cannell

<https://www.youtube.com/watch?v=3Wz-fGewi48>



Agenda

| Stage 2 Session | |
|--------------------|---|
| Time | Activity |
| 3:30 - 3:35 | Welcome and Introduction 4CE Classroom – Room 3 |
| 3:40 - 3:55 | Session 1 |
| 3:55 - 4:10 | Session 2 |
| 4:10 - 4:25 | Session 3 |
| 4:25 - 4:30 | Conclusion and reflection 4CE Classroom – Room 3 |



Agenda

Parents and their children will be grouped and rotate between the three teaching and learning activities.

| | | |
|------------|---------------|--------------------------|
| Activity 1 | 4CE Classroom | Addition and Subtraction |
|------------|---------------|--------------------------|

| | | |
|------------|---------------|-------------|
| Activity 2 | Computer Room | Measurement |
|------------|---------------|-------------|

| | | |
|------------|---------------|----------------|
| Activity 3 | 4CM Classroom | Multiplication |
|------------|---------------|----------------|



Reflection

| | Number and Algebra Whole numbers Addition and Subtraction Multiplication and Division Fractions and Decimals Patterns and Algebra | Measurement and Geometry Length Area Volume & Capacity Mass Time 2D space 3D Space Angles Position | Statistics and probability Chance Data |
|-----------------|---|--|---|
| Communicating | | | |
| Problem solving | | | |
| Reasoning | | | |
| Understanding | | | |
| Fluency | | | |



Activity 1 4CE Classroom

Addition and Subtraction



HOW CAN I HELP MY CHILD AT HOME?

Explore and discuss maths in a real world context:

- Sports scores/ statistics
- Weather maps/ temperatures/ forecasts (BOM website)
- Cooking and recipes
- Shopping and catalogues
- Travel timetables - train, plane, bus etc
- Money - bank statements, bills, budgets
- Newspapers - statistics, number puzzles, percentages in context

Rolling subtraction

apply



Getting ready

This is a game for two players. You will need two dice and each player needs a copy of this page to record their answers. You may like to make a few copies so you can play again.



What to do

The aim of the game is to get as close as possible to zero. Roll the dice and write this number in the first row under 99. Subtract and record the answer in the next row. Roll the dice again to create another 2 digit number and subtract again. If you can't make a 2-digit number to subtract, you miss a turn. Players take turns and may subtract only one number on the dice once they get closer to zero. The winner of a round is the player who gets the closest to zero. Play the best out of three.

| Example | | | Round 1 | | Round 2 | | Round 3 | |
|---------|-----------------|-----------------|---------|---|---------|---|---------|---|
| | Number on die 1 | Number on die 2 | | | | | | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| - | 3 | 4 | - | | - | | - | |
| | 6 | 5 | | | | | | |
| - | 4 | 1 | - | | - | | - | |
| | 2 | 4 | | | | | | |
| - | 1 | 3 | - | | - | | - | |
| | 1 | 1 | | | | | | |
| - | | 5 | - | | - | | - | |
| | | 6 | | | | | | |
| - | | 6 | - | | - | | - | |
| | | 0 | | | | | | |
| - | | | - | | - | | - | |
| | | | | | | | | |
| - | | | - | | - | | - | |
| | | | | | | | | |
| - | | | - | | - | | - | |
| | | | | | | | | |



Getting ready

This is a game for two players. You will need four dice and a copy of this page to record your totals.



copy



What to do

The aim of this game is to reach a total of 50. Each player takes a turn to roll a die four times and records the total in a row in one of the tables below. If your running score goes over 50, you strike out. You may choose to freeze after the first or second roll if you are getting close to 50. Take turns until the table is full. The player who finishes the round closest to 50, but not over 50, scores 5 points. The player who finishes the round exactly on 50, scores 10 points.

Player 1

| ROUND 1 | |
|----------------|---------------|
| Rolled numbers | Running total |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| ROUND 2 | |
|----------------|---------------|
| Rolled numbers | Running total |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| ROUND 3 | |
|----------------|---------------|
| Rolled numbers | Running total |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Player 2

| ROUND 1 | |
|----------------|---------------|
| Rolled numbers | Running total |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| ROUND 2 | |
|----------------|---------------|
| Rolled numbers | Running total |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| ROUND 3 | |
|----------------|---------------|
| Rolled numbers | Running total |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Lowest score

apply



Getting ready

This is a game for two players. You will need a die and a copy of this page to record your answers. You may like to make a few copies so you can play again.



What to do

The aim of this game is to get the lowest finishing score. Player 1 rolls the die and writes this number in the first column. Next, they decide whether to add 10 or multiply by 5 and subtract this number from 100. The result will be their running score and Player 1 will subtract from their running score on their next turn. Player 2 repeats these steps. Continue taking turns until the table is filled. The lowest finishing score wins.

I have to be careful when choosing whether to + 10 or $\times 5$ because I don't want to get below zero but I want to get close to zero!



THINK

Player 1

| Number on die | Number used | Running score |
|-----------------|-------------|---------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Finishing score | | |

Player 2

| Number on die | Number used | Running score |
|-----------------|-------------|---------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Finishing score | | |

Subtract from 100

apply



Getting ready

This is a game for two players. You will need two dice and 10 counters each, in two different colours.



copy



What to do

The aim of the game is to use all your counters first. Player 1 rolls the two dice and makes a 2 digit number from the numbers rolled. They subtract this 2 digit number from 100, find the answer on the grid and cover the number with a counter.

Player 2 repeats this process. The winner is the first player to get rid of all their counters.

| | | | | | |
|----|----|----|----|----|----|
| 85 | 38 | 39 | 79 | 86 | 59 |
| 68 | 55 | 57 | 69 | 37 | 54 |
| 34 | 87 | 36 | 44 | 56 | 47 |
| 58 | 49 | 64 | 66 | 77 | 46 |
| 45 | 78 | 67 | 75 | 76 | 89 |
| 74 | 88 | 84 | 65 | 48 | 35 |

WORKING MATHEMATICALLY - MEASUREMENT

THURSDAY 10TH AUGUST 2017

STAGE 2

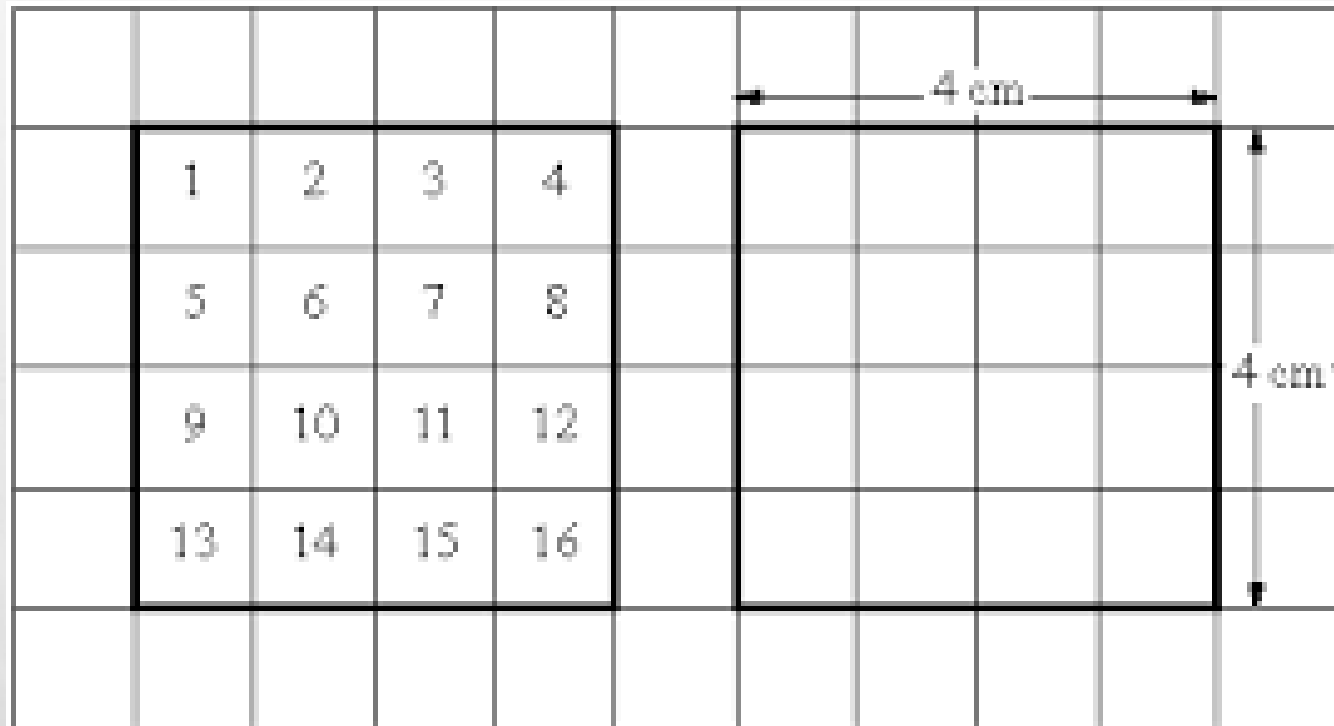
<https://www.youtube.com/watch?v=yL0omVWzFHc>



AREA



AREA



$$\text{Area} = 16 \text{ cm}^2$$

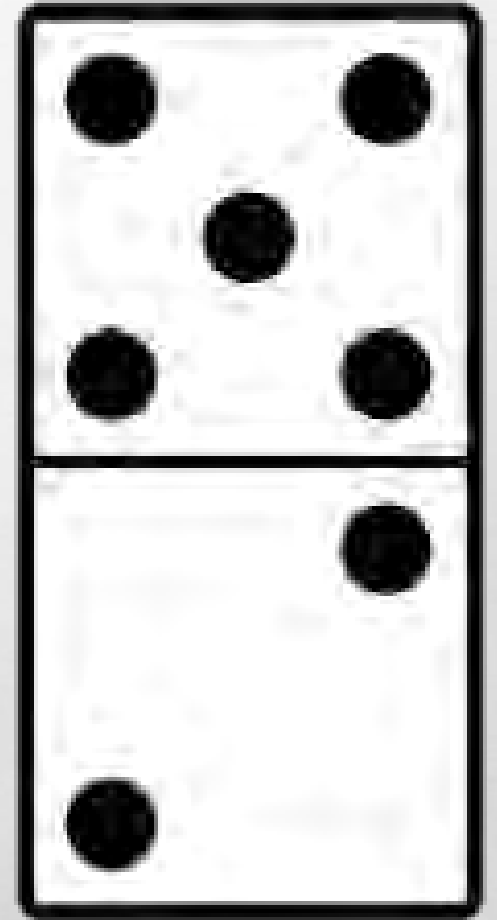
$$\begin{aligned} \text{Area} &= 4 \times 4 \\ &= 16 \text{ cm}^2 \end{aligned}$$

AREA GAME:

Equipment:

- Dominos
- Pencil
- Pen

1. Pull a dice out of the bag.
2. Student A will draw a domino from the bag. The two numbers on the domino are the length and width of a rectangle in centimeters.
3. Everyone draw a diagram to represent the rectangle.
4. Check Student A's diagram.
5. If it is correct, 1 point is scored.
6. Winner is the player with the most points.



TIME



TIME



TIME GAME - POW:

Equipment:

- Tub
- Pow cards
- Clock face cards

1. All Cards are placed inside the tub.
2. Take it in turns to pull out a card. If it is a clock face, read the time to your group. If it is right, you keep the card. If not, it is returned into the tub.
3. If a 'POW' card is drawn all cards except the POW cards are returned to the tub.
4. Winner is the player with the most cards when time is called or there aren't any cards left.

<https://www.youtube.com/watch?v=GN1EGLYLPF4>

LEPS Stage 2 – Working Mathematically Parent Information Session 2017

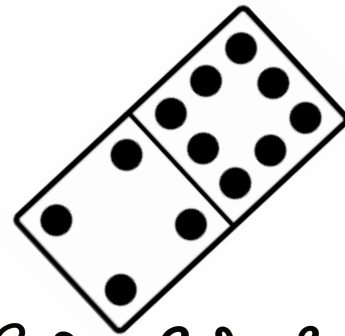
Domino Area

Instructions:

1. Pull a domino out of the bag.
2. Student A will draw a domino from the bag. The two numbers on the domino are the length and width of a rectangle in centimeters.
3. Everyone draw a diagram to represent the rectangle.
4. Check Student A's diagram.
5. If it is correct, 1 point is scored.
6. Winner is the player with the most points.

Equipment:

- Dominos
- Paper Whiteboard
- Pencil Whiteboard Marker



TIME POW

1. All Cards are placed inside the tub.
2. Take it in turns to pull out a card. If it is a clock face, read the time to your group. If it is right, you keep the card. If

Equipment:

- Tub
- POW Cards
- Clock Face cards



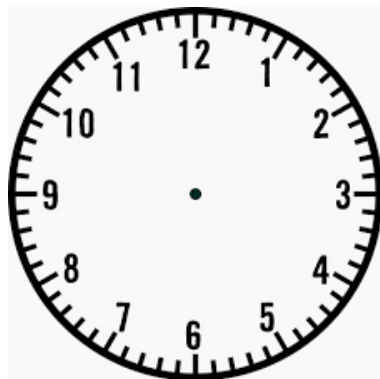
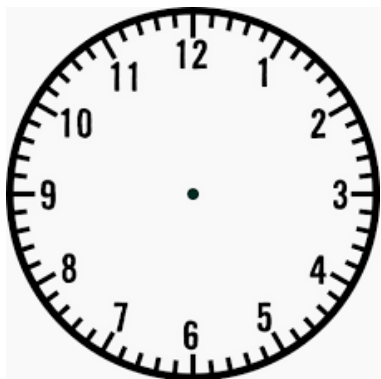
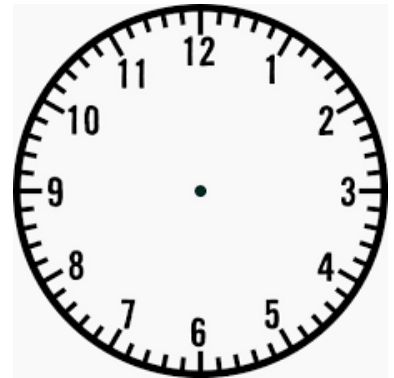
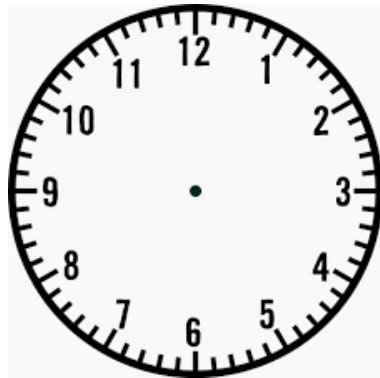
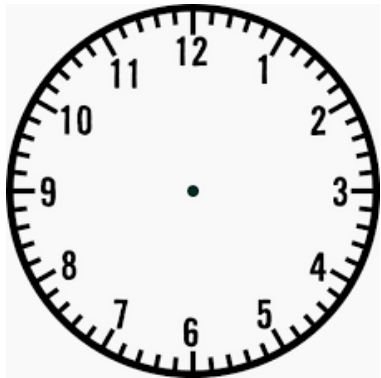
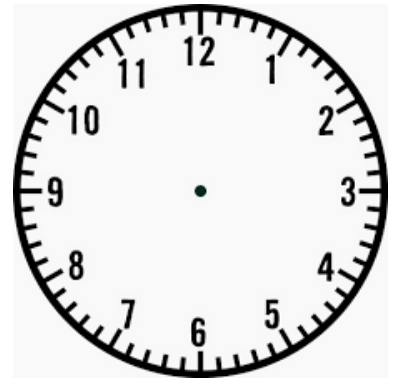
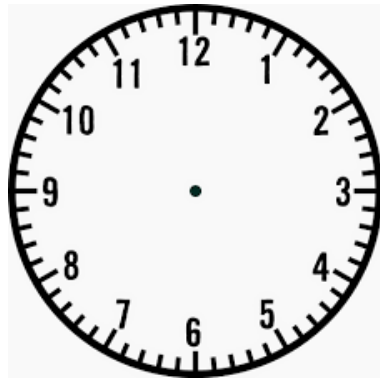
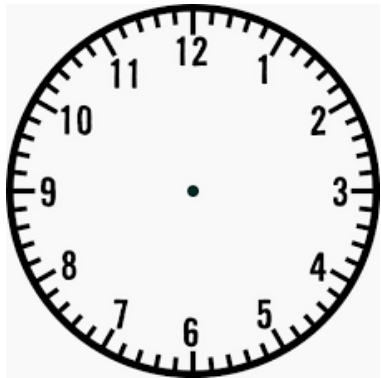
not, it is returned into the tub.

3. If a 'POW' card is drawn all cards except the POW cards are returned to the tub.

4. Winner is the player with the most cards when time is called or there aren't any cards left.

TIME POW GAME CARDS –

Draw times on the clock faces before playing.



MULTIPLICATION



GREEDY PIG



| PLAYER 1 | PLAYER 2 |
|----------|----------|
| | |
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| | |
| | |
| | |
| | |

<https://www.youtube.com/watch?v=kvJWFuc-sAg>

<https://www.youtube.com/watch?v=cdQGcXKvUzQ>



Back to Back

Two students stand back to back and each writes a factor on the white board (you can set limit, usually 1-9) and a “caller” announces the product. The two students have to try to solve the others factor, knowing their factor and the product. The person who wins stays and the next class member takes the other space. Whoever wins 3 rounds in a row gets to be the new caller. This is typically a whole class game.

<https://www.youtube.com/watch?v=nYaRbVJG7W4>

<https://www.youtube.com/watch?v=G1S1DCWett8>

MULTIPLICATION SUPERHEROES



- Find a partner, a dice, and some game pieces.
- Take turns rolling the dice, saying the product, and covering it with a game piece.
- The first person to cover 4 in a row wins the game!



| | | | | | |
|----|----|----|----|----|----|
| 1 | 3 | 30 | 15 | 6 | 10 |
| 6 | 15 | 3 | 25 | 4 | 4 |
| 24 | 2 | 8 | 20 | 15 | 12 |
| 36 | 6 | 18 | 24 | 10 | 3 |
| 12 | 18 | 5 | 30 | 12 | 8 |
| 24 | 16 | 18 | 2 | 4 | 20 |
| 4 | 12 | 25 | 6 | 5 | 4 |

©2014 Light Bulbs and Laughter

<https://www.youtube.com/watch?v=IhSqrMXv-M0>

Thank you



STAGE 2 MATHEMATICS SESSION

THIS CERTIFICATE IS PRESENTED TO

Madeleine Woods

LEPS COLLABORATIVE PARENT AND
STUDENT LEARNING SESSION

10 AUGUST 2017

