RICH MATHEMATICAL TASK BOOKLET

PROBABILITY

YEAR 2

Teacher Booklet

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Task 1 (whole class option)

Decide how likely it is that you will have these things for dinner tonight.

- 1. Toast
- 2. Ice cream
- 3. Weetbix
- 4. Fruit
- 5. Yoghurt
- 6. Pizza
- 7. Rocks
- 8. Pumpkin

Put them on your continuum and be ready to justify why you have put them there.

Can you add two more things to your continuum and justify why you have put them there?

Impossible

Unlikely

Possible

Likely

Certain

Task 1 (Images)



Toast



Yoghurt



Icecream



Pizza



Weet-Bix



Rocks



Fruit



Pumpkin



Toast



Yoghurt



Icecream



Pizza



Weet-Bix



Rocks



Fruit



Pumpkin

Task 1 (independent)

Solve the following problems:

Leti's netball team scored 24 goals in one game and 13 goals in another game. How many goals did her team score altogether?

Sienna's netball team scored 36 goals in one game and 15 goals in another game. How many goals did her team score altogether?

14 + 15 =

26 + 17 =

39 + 28 =

Decide the probability that you will do these things on the weekend.

- 1. You will go to the supermarket.
- 2. You will play in the snow.
- 3. You will watch a movie.
- 4. You will eat some food.
- 5. You will go to a playground.
- 6. You will sleep.
- 7. You will see a live dinosaur.
- 8. You will listen to some music.

Put them on your continuum and be ready to justify why you have put them there.

Can you add two more things to your continuum and justify why you have put them there?

Impossible

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Task 2 (resource – print these for students to put on continuum).

1. You will go to the supermarket.	
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Task 2 (independent)

Think of what you will do after-school today. On your continuum draw a picture of something that is:

- certain.
- impossible.
- possible.
- likely.
- unlikely.

Add other pictures to your continuum and choose where you place them.

Impossible

Unlikely

Possible

Certain

Likely

Nanny has asked Manaia to help the whanau by doing one chore before he goes and plays. The chores are:

- 1. Sweeping the kitchen
- 2. Washing the dishes
- 3. Feeding the cat
- 4. Hang the washing out

After he has done his chore, Manaia can play:

- 1. With the ball
- 2. On his bike
- 3. Running races

Can you show the different chores and play activities that Mania might choose?

How many different combinations are there?

Task 3 (independent)

Nanny has asked Manaia to help the whanau by doing one chore before he goes and plays. The chores are:

- 1. Vacuum the lounge
- 2. Mop the kitchen
- 3. Clean the toilet

After he has done his chore, Manaia can play:

- 4. Snakes and ladders
- 5. Building blocks
- 6. Cars
- 7. Tag

Can you show the different chores and play activities that Mania might choose?

How many different combinations are there?

When you toss a coin, what is the chance that you will land on heads? What is the chance that you will land on tails?



What do you think will happen if you toss a coin ten times? Make a prediction with your buddy.

Toss your coin ten times and record what happens.

What do you think will happen if you toss the coin another ten times? Record what you find.

What do you notice?

Task 4 (connect)

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Task 4 (independent)

John and Mia are playing a game where they flip the counter ten times. John wins the game if it lands on blue and Mia wins if it lands on red.

Is John or Mia more likely to win the game?

Flip the counter ten times and record the results.

Flip the counter ten more times and record the results.

What do you notice?

Mikaere has made this spinner for a game.



He says:

- 1. The spinner will land on blue, green or yellow.
- 2. There is a half chance of the spinner landing on blue.
- 3. The spinner might land on red.
- 4. Blue and green have an equal chance.
- 5. The spinner will land on blue the most.
- 6. There is a $\frac{1}{4}$ chance that the spinner will land on yellow.

Decide which statements that you agree or disagree with and provide reasons.

Make your own statements about the spinner.



Can you make a spinner that has a half chance of landing on blue?

Can you make a spinner that has a quarter chance of landing on yellow?

Can you make a spinner that has an equal chance of landing on red or green?

Can you make a spinner that has the most chance of landing on blue?

Can you make a spinner that has the least chance of landing on yellow?

Mohammed and Ayaan are playing a game. They have to roll a six to start. Ayaan says "It is much harder to roll a six than other number. Let's change it to roll a three to start as that will be easier".

Do you agree with Ayaan?

Roll the dice twenty times and record the numbers that you roll.

What do you notice?

Record what you find.

Represent your findings using a tally chart or picture graph.

What do you notice?

Task 6 (independent)

Devon thinks it is more likely to roll a one than a five. Do you agree or disagree?

Roll the dice 20 times and record the results. What do you notice?

Roll the dice another 20 times and record the results. What do you notice?

Represent your results using a tally-chart or picture graph.

Jaylan and Orion were playing beanz. They are trying to predict the likelihood of which bean they will draw.



They make these statements:

'It is more likely that we will draw a green bean than any other colour"

"It is less likely to draw a red bean than a green bean"

"It is less likely to draw a yellow bean than any other colour"

Discuss the statements and see whether you agree or disagree.

Make your own statements.

Now test the game by drawing a bean and recording the result and then putting the bean back and drawing another.

Play the game 10 times and record the results.

Play the game another 10 times and record the results.