MATHS

Probability.

1 Colour and write.

2 sweets are blue **7** sweets are orange **1** sweet is red **6** sweets are green

	High probability	Low probability	Probability
Blue sweet			
Red sweet			
Green sweet			
Orange sweet			

2 Write the letters of the alphabet.

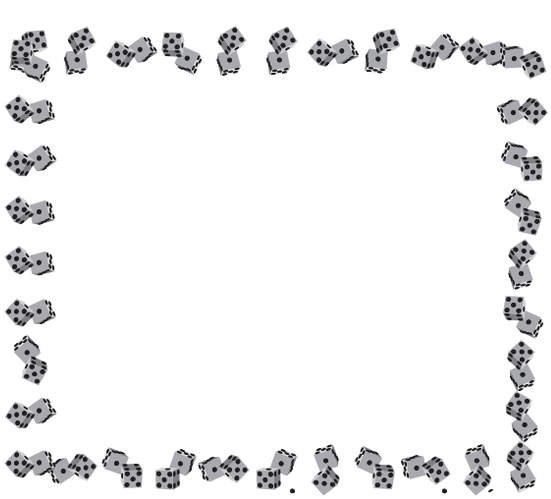
a. Is it easier to get a vowel or a consonant? _____

b. What is the probability of getting a vowel? _____

c. What is the probability of getting a consonant? _____

d. What is the probability of getting the letter A? _____

3 Draw a dice and answer the questions.



a. What is the probability of getting an even number?

_____

b. What is the probability of getting an odd number?

_____

c. What is the probability of getting a 3?

_____

TEACHER'S NOTES

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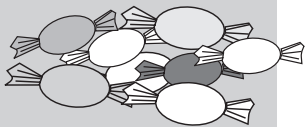
Probability.



Aim
- To study probability.

Language focus
Key vocabulary: *heads, tails, probability, vowel, consonant, even number, odd number, dice.*

Key language: *What is the probability of getting a consonant? The probability of getting a consonant is higher than the probability of getting a vowel. The probability of getting heads is 0.5.*

Materials
- Worksheet.
- Coins.
- Dice.
- Different coloured sweets.

Warm-up
- Show the class a coin. Show the pupils the two sides of the coin and explain the difference between *heads* and *tails*. Write *heads* on the left of the board and *tails* on the right. Toss the coin, show the pupils the coin and say *heads* or *tails* and tick the corresponding column on the board. Invite different pupils to come to the front to toss the coin and tick the columns.
- Show the class the coin and ask them *What is the probability of getting heads? What is the probability of getting tails?* Explain that *the probability of getting heads is 1/2 and the probability of getting tails is also 1/2. The probability is the same. The probability of getting heads is the number of heads (1) divided by the total number of possibilities (2). 1 divided by 2 is 0.5. The probability of getting tails is the number of tails (1) divided by the total number of possibilities (2). 1 divided by 2 is 0.5.*

Completing the Worksheet

Activity 1
- Show the class some different coloured sweets, eg, 8 blue, 2 red, 9 orange, 3 green. Count the sweets and go through the colours with the class. Ask the class questions about the sweets, eg, *How many red sweets are there?* Write the number of sweets and the colour on the board. Put the sweets in a bag. Invite a pupil to come to the front. Ask the pupil to close his eyes and take a sweet out of the bag without showing it to the rest of the class. Ask the pupil to guess the colour of the sweet. Encourage the pupil to say *I think it's a blue sweet.* Ask the class *What colour do you think the sweet is? Put your hand up if you think it's a blue sweet.* If the pupil guesses the correct colour he can keep the sweet. Invite some more pupils to come to the front. Make sure all the pupils get a sweet.
- Explain that *when you have 8 blue sweets, 2 red sweets, 9 orange sweets and 3 green sweets in the bag you could get any of the four colours because all the colours are in the bag. But we don't know what colour the sweet is. We know that the probability of getting one colour is higher than the probability of getting other colours. The probability of getting a purple sweet is 0 because there aren't any purple sweets in the bag.* Elicit what colours the pupil is more likely to get - orange because there are more orange sweets. Then blue, green and red. Draw a table on the board and explain the difference between high and low probability:

	High probability	Low probability
Blue sweets (8)	X	
Green sweets (3)		X
Red sweets (2)		X
Orange sweets (9)	X	

- Ask the pupils to colour the sweets in Activity 1.
- Write on the board *2 blue sweets, 7 orange sweets, 1 red sweet, 6 green sweets.* Ask the pupils *What is the probability of getting a red sweet? High or low?* Explain that *the probability of getting a red sweet is very low. To know what the probability is we divide the number of red sweets by the total number of sweets (1/16=0.06).* Continue with the other coloured sweets.
- Ask the pupils to fill in the table in Activity 1.

Answers:

	High probability	Low probability	Probability
Blue sweet		X	2/16=0.12
Red sweet		X	1/16=0.06
Green sweet	X		6/16=0.37
Orange sweet	X		7/16=0.44

TEACHER'S NOTES

Activity 2

- Ask the pupils to write the alphabet in the boxes in Activity 2. Explain the difference between consonants and vowels. Get the pupils to colour in the vowels. Ask them *How many vowels are there? (5) How many consonants are there? (21)* Go through the questions with the class. Arrange the pupils in small groups and encourage them to discuss the answers. Invite some pupils to write the answers on the board. Write on the board *The probability of getting ___ is higher / lower than the probability of getting ___ , eg, The probability of getting a consonant is higher than the probability of getting a vowel.*
- Ask the pupils to fill in the table.

Answers: **a**-consonant (because there are more consonants than vowels); **b**-5/26=0.192; **c**-21/26=0.807; **d**-1/26=0.038

Activity 3

- Show the class a dice. Explain the difference between *odd* and *even numbers.* Arrange the class in small groups and ask them to read the questions and discuss the answers. Write the answers on the board.

Answers: **a**-3/6=0.5; **b**-3/6=0.5; **c**-1/6=0.166

Extension activity

Arrange the pupils in small groups. Give each group a dice. Ask a pupil to roll the dice. Encourage the other pupils to guess if the number will be odd or even. The pupils take turns to roll the dice. Ask the pupils to keep a record of their guesses. Explain that *the probability of getting an odd number or an even number is the same.* Encourage the pupils to compare their records and discuss who is lucky in their groups, eg, *I think I'm lucky today because I won 7 times and the other pupils only 3 or 4.*