Resource Document

Discovery Activity - Mean   *(Teaching and Learning Activity, #1)*

The teacher needs five students to help her move five stacks of textbooks. The numbers of textbooks in each pile are 6, 16, 3, 11, and 4.

If you were among these 5 children, which stack of books would you prefer to carry? Why?

Would it be fair for some children to carry larger stacks of books?

Model what can be done with the books so that the children carry even number of books?

What is the relationship between the number of books in each stack and the total number of books?

What could be done with the number of books recorded in each pile previously to yield the same result?

Mean - Game *(Teaching and Learning Activity, #2)*

Players: Small groups (up to four members)

Materials: Four dice per group, jar, score sheet

Procedure:

Allow students to sit in groups. Each player should take turns to roll the four dice in the jar and then record the number shown on each di. Each member of the group should find the mean based on the numbers recorded on each di from each person's throw. Repeat this process for three rounds and then decide the winner based on who has the highest average overall at the end of the three rounds.

<u>Score sheet sample</u>

<u>Round 1</u>

Names	Numbers on each di				Averages
	Di #1	Di #2	Di #3	Di #4	

Round 2

Names	Numbers on each di				Averages
	Di #1	Di #2	Di #3	Di #4	

Round 3

Names	Numbers on each di				Averages
	Di #1	Di #2	Di #3	Di #4	

Names	**Round 1**	**Round 2**	**Round 3**	Highest average for all three rounds

Mean - Worksheet *(Assessment, Activity, #1)*

Name: _____   **Date:** _____

There were 7 persons who purchase lunch tickets for their family and friends at a fair. The seller of the tickets just got news that there was minimal number of lunches remaining. As each person in the line made their purchase, it was left up to the seller to decide how many tickets to sell the person next in line regardless of them being to afford it, so that the other persons would be able to get lunch. The table below shows information about the purchase of the tickets.

Names	Number of lunch tickets
Sheryl	18
Ricky	16
Peter	10
Danny	14
Ally	13
Henry	7
Cindy	6

Cindy said "I wish I could purchase as much tickets as everybody else. Now some of my friends and family will have to be sharing.

Henry suggested that they all put their lunch tickets together and then take an equal number of tickets.

Answer the following questions

1. How many lunch tickets did the 7 persons purchase in all?

2. How many would each person get if they all put their lunch tickets together and then each took an equal number?

3. Do you think that anyone would object to Henry's suggestion? Who? Why? Given reason to support your answer.

4. If Henry's suggestion is followed, what would be the findings?

5. Which person/s purchased an above average number of tickets?

6. Which person/s purchased a below average number of tickets?

7. Who purchased the exact average of the number of tickets?

8. Justify whether or not you think Henry's suggestion to take the average of the total number of tickets is a good idea.

Gas Stations and Restaurant prices   *(Assessment, Activity, #1)*

Worksheet

Gas Stations	E10 – 87	E10 – 90	Diesel
Unipet			
Total			
Rubis			
Texaco			
Epping			
Cool Oasis			

Gas Station

a. Which gas station has the lowest price for E – 10 87?

b. Which gas station has the highest price for E – 10 87?

c. Which gas station has the lowest average price for their products?

d. Find the range for diesel fuel.

e. Find the range of prices for products from Epping gas station.

Fast Food Restaurants

Restaurant	Chicken Sandwich Combos	Fries	Chicken Nuggets Combos
Mothers			
KFC			
Burger King			
Tastee			

Probability Worksheet *(Assessment, Activity, #2)*

Group Members: _____

Date: _____

Materials: 2 dice and an activity sheet.

Ask students how many different outcomes are possible if they were to roll 2 dice. Remind students that there are 6 options on each di. Together, you can determine that there are 6 x 6 = 36 possible outcomes.

Ask students how many ways there are to roll a total of "2" using two dice. Response: 1 - (1 + 1)

Ask students how many ways there are to roll a total of "7." They should come up with 6 combinations: 1 + 6, 6 + 1, 2 + 5, 5 + 2, 3 + 4, and 4 + 3.

Total to Roll	Ways to Get the Total	Probability of that Roll
2	1	1 /36
3		/ 36
4		/ 36
5		/ 36
6		/ 36
7	6	6 /36 = 1/6
8		/ 36
9		/ 36
10		/ 36
11		/ 36
12		/ 36

Making a spinner *(Teaching and Learning Activity, Activity, #1)*

Materials: Cardboard, split pin, ruler, cartridge paper, marker or crayon

Allow students to cut a circle from the cardboard. Have them divide the circle into quarters. Have them cut different colour cartridge paper to paste in the different quarters of the circle or to colour the different quarters. Put a split pin in the middle. All spinners should not have the same amount of colours.

Example: