MONEY MATTERS (LEVEL 3)

Description	The learner will explore the concept of money and understand how it evolved over time.
Leading Question	Why do we value money?
Total Time Required	6.3 hours over 5 days
Supplies Required	• Pen, paper, scissors, color pencils (optional), ruler or solid item with straight edge, household items for pretend shop activity
Learning Outcomes	1. Understanding of the history of money and its evolution 2. Understanding of the differences between money and bartering, and the advantages of the former over the latter 3. Understanding of supply and demand 4. Understanding the concepts of producers and consumers in a market and their competing interests 5. Understanding of budgeting
Previous Learning	Multiplication within 10.

DAY 1

Today you will begin looking at what we do with money.

Suggested Duration	Activity and Description
10 minutes	● In this project, we will explore some of the functions of money and understand how it works. Reflect on these questions: what is money? What does it help us do? Then list 5-10 things you can do with money (e.g. buying things, paying for school, donating etc.) ● From the list, observe that there is always an exchange happening. We trade money for something else using coin or paper currency or electronic money (with cards). Think: can you think of using anything else to make these exchanges? Did you know that people always had a way of exchanging goods and services? We did not always have money as we know it today – we did not always use the same paper bills or any of the other means of exchange we now consider money.

30 minutes	- Long before people started using paper bills, people were exchanging things with each other to meet their needs. For example, a shoemaker would exchange shoes with a farmer to get vegetables. This is called bartering or the barter system. Play the following game with your family to understand the barter system: - Get at least 2 other players from your household or neighbors/friends - Imagine that every human has three needs – food, clothing, and medicine. You can also create your own categories. - On a sheet of paper, draw the following table

Player	Food	Clothing	Medicine	Total points
Round one				
1				
2				
3				

- Go around your house collecting 3-4 items (or more depending on the number of players). Make sure that the items you select have at least 2 that belong to the categories listed above and the rest are random items.
- Players will earn 2 points for food items, 1 for clothing and 0.5 for medicine. You can change this to your liking.
- Players will come up with a system for exchange. For example, since food items are worth more, two items of clothing can be exchanged for one item of food, and four medicine items can be exchanged for 1 food item etc. Players can come up with their own exchange system
- When the game starts, players will walk up to each other to try and trade the items they have for better ones or for ones they are missing. Try to convince players to give up their items in exchange for yours. Make sure that you trade with all players.
- After each round, enter in the table the items from each category that you ended up with at the end of the round
- Play at least three rounds of this game. The goal is to get everything that you need based on the categories listed above

15 minutes	● Reflect on the pros and cons of the barter system by answering the following questions: - Was it easy to convince others to trade their items for yours? - Do you think life during the barter era was easy or hard? What do you think happened to people who owned too much of one item? What about those who had items that were not considered important? - Imagine you were a barber during the barter era. Write a short essay on how you ensured that your family's needs are met. What are some challenges you might face?
10 minutes	● There is so much that money allows us to do. We can store our money for later use, we don't have to use it all up today because we don't have to

worry that it will go bad or become unusable. Also, we can choose to spend only a part of our money to buy an item instead of giving up a huge item in exchange for a smaller one that we need. We cannot divide items into smaller parts, but we can spend less money or more money to get the exact size and quantity of items we need. Compare money to bartering, what are some things we can do with one that we cannot do with the other?

Money	Bartering
e.g. We can use it to buy anything	We can only get what we need if someone wants what we have to offer

DAY 2

Today you will learn about how money is used.

Suggested Duration	Activity and Description
5 minutes	● Think of other items that are valuable and can be used as currency and write a list of 3-4 items. For example, gold.

30 minutes	● Many things were used as money in the past. Try to use an item as money at a local grocery store:
	  - Take any item you are willing to give up in exchange for an item from a grocery store
	  - Visit the store with an adult
	  - Ask the shopkeeper if you can trade the item for something in the store. If he or she rejects your offer, see if you can trade it for something that is worth less. For example, see if you can exchange an umbrella for some candy
	  - Record your response and use it to answer the following question: "why is it difficult to use items as currency?"
	  - If you are unable to go to the grocery store, you can pretend that your classmates or family members are shopkeepers and role play the activity above.
	● Isn't it interesting that we can work a lot better with paper or coin money than exchanging items, even though the items are more valuable than a piece of paper?

20 minutes	● Create your own paper and/or coin money:

	- On a piece of paper, cut out 30 rectangular or round shapes for your paper bills or coins.
	- If you are creating paper bills, think about the currency denominations you will use – these are the numbers printed on paper money indicating their worth. In Qatar, for example, the currency denominations used are 1, 5, 10, 50, 100, and 500.
	- On your rectangular cutouts, make 5 bills of each denomination, i.e. 5 ones, 5 fives, 5 tens etc.
	- Design your currency by coloring it and drawing interesting things on it like important building in your country, the national animal etc. You can use actual paper money as an example. Get creative!
	- Think of a catchy name for your currency! Some currency names are Riyal, Dollar, Yen, Pound, Dinar, Rupee etc.
10 minutes	● Numeracy activity: - Calculate the area of one of your rectangular paper bills. Collectively, what is the area of all the paper bills combined? If you created coins, what is the circumference of each coin? (Hint: area of a rectangle = length x breadth and circumference = $2\pi r$. Remember that $\pi = 3.14$)

DAY 3

Today you will explore the concept of demand.

Suggested Duration	Activity and Description
15 minutes	● You will set up a shop. - Assemble a collection of items from your house and give each item a price according to what they are worth in real life. For example, candy can be worth $3, a dress can be worth $50, a book can be $20 etc. - If you are comfortable with decimals, use them - Make sure that you have a selection of cheap and expensive items - If the learner has already done the "Set Up your own Store" project, she or he can create items to sell using materials available at home, or even make juice or cookies/sandwiches to sell to their family members. In that case, learners will determine the total cost of the items by adding the cost of each ingredient that goes into making the item. For example, if she or he chooses to sell a cookie, the total price will be the price of the flour, butter, sugar, eggs, baking powder, baking soda, and chocolate chips.
15 minutes	● Invite your family to the shop and give them money to spend. You can give "customers" different amounts to see how they will spend it and inform them that they have to spend all of it.

	● Note: if you have more than one item of the same kind, display all of them and allow family members to take the item they buy. If you have only one item of the same kind, for example, only one dress, but many family members want it, allow them to buy it and take their money, but do not give it to anyone. Try to use items that you have plenty of such as fruits, candy, t-shirts, pens etc.
5 minutes	● Create the following demand table in your notebook:

Item	Price	Number of people who bought it
e.g. candy	$3	4

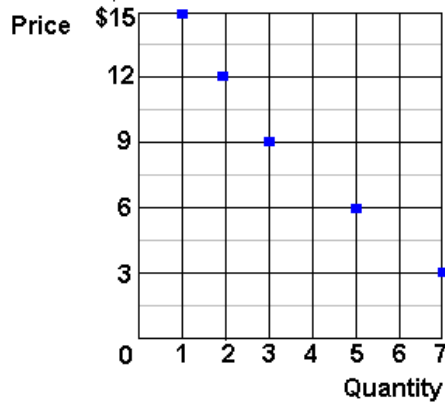| **10 minutes**	● Reflection – write your reflections in your notebook: - The number of people who bought an item (and those who want and can buy it, but couldn't because it ran out) is called the **demand**. - What do you observe about your customers' demand for different items? - Is there any relationship between demand and price?
15 minutes	● Try the activity again after announcing a sale and reducing the price of some or all items. What do you observe about your customers' buying habits now?
10 minutes	● Create the following table in your notebook and plot coordinates according to your demand table:

Price	Quantity Demanded per Month
$15	1
12	2
9	3
6	5
3	7

Source:http://www2.harpercollege.edu/mhealy/eco212i/lectures/s&d/s&d.htm

- The horizontal line – called the x-axis – will show the number of times family members bought the same item. This is the quantity of demand.
- The vertical line – the y-axis – represents the price of each item
- Example: in the example above, the table shows that the item priced at $15 was purchased one time, while the item priced at $12 was

purchased two times. On the adjacent plot, this is shown by the top two points on the plot (1,15) and (2,12)
- The first number in (2, 12), which is 2, is the number on the x-axis, while the second number, 12, is the number on the y-axis. So, to plot this, you will construct a similar plot then place your finger on number 2 on the x-axis. Keeping your finger locked in this position without moving left or right, you will go up to the corresponding number on the y-axis, 12.
- (2,12) and (1,15) are called ordered pairs
- Construct the same graph in your notebook and plot your own demand table based on your family's demand for the items you sold them earlier
- Finally, draw a line passing through all the points in your graph. This is called the demand curve

DAY 4

Today you will understand the concept of supply.

Suggested Duration	Activity and Description
5 minutes	● People buying things in a store are called **consumers**, but the people making them are **producers**. As a consumer, you are spending your money, but as a producer, you are making money from the items you produce and sell. Do you think a consumer wants prices to be high or low? Why?
5 minutes	● Now think about a producer – would a producer want prices to be high or low? Of course, producers want to keep prices high to make more money from each item they sell. Think about the following items: - A shoe that can get you $60 if you sell it. - A juice bottle that can get you $2.
15 minutes	● Write in your notebook a paragraph about which item you will produce more of and why. You can interview the shopkeeper to find out what they would rather sell more of. ● Of course, you will choose to produce more of the item that will get you more money, in this case, the shoe.
20 minutes	● Now go back to your demand table and create the opposite – a supply table. The learner will think of the quantities a producer would sell of the same items and enter them in the table. Remember, the higher the price, the more you want to sell of that item

Item	Price	How many units of this item I would sell as a producer
e.g. candy	$3	2
dress	$50	5

15 minutes	● Plot supply in a similar plot to the demand graph you created yesterday using price as x-axis and quantity as y-axis.
15 minutes	● Reflect on some of the factors that affect supply and demand and list them in your notebook. Prompts: - What do you think make people want an item less or more? In other words what affects demand? Think of an example from your own life where you stopped buying an item, or suddenly bought more of an item. What made you do this? Some reasons include change in taste or preference, price change. Can you think of more? - In contrast, if you decide to start selling an item, for example, homemade ice cream, what are some reasons you might start selling more or less? For example, if it becomes too expensive for you to buy milk because all the cows in your area are sick, then you might make less ice cream. Can you think of other reasons?

DAY 5

Today you will understand the concept of a budget.

Suggested Duration	Activity and Description
5 minutes	● Ask your parent or family member who is working or used to work how they decided to spend the money they earned. It is important to also save and budget with money. A budget helps us understand how to organize our money so that we are spending it in the best way possible for us, and maybe even saving some.
20 minutes	● Create a monthly supply of essentials to understand how budgets work: - Make a list of the 10 most important essential goods at home that are important to you. - Give each of these items a price that reflects their real value that you would see in a store. You may ask members of your household or any adult if you are not sure, or even check for yourself at a nearby store or on the packaging the item came in - Next, take some money from your currency notes, say $100. This is your budget for the month - Add the cost of all the items you gathered or listed

	- Subtract the total from the budget. Do you have more or less money than the total cost of the items you need?
10 minutes	● Repeat this with a higher budget of $2000. What difference do you notice? Are you able to save anything or do you want to purchase more items? Money saved is the amount that you have left over **after** you pay for everything that you need. Write your observations in your notebook.
30 minutes	● Let's understand through a simple example how a budget is broken down: - Your budget is made up of the cost of each item you purchase. Let's imagine that you spend your entire budget on only 2 items, apples and bananas. Can you write this as an equation? It would look something like: apples + bananas = budget - Now let's imagine that you have a budget of $50 and that the price of one banana is 5, while that of an apple is 2 - How many bananas and apples can you buy with $50? - Try different combinations to find the right answer. You can recreate the table below

Item	Price	Quantity	Total
Apple	$2	1	2 x 1 = 2
Banana	$5	10	5 x 10 = 50
Total			2+ 50 = 52

	● In the example in the table above, the total is $52, which is over the budget we have set. Change the quantities and see if you can get exactly $50!
10 minutes	● Optional/Advanced: Can you represent the budget in the example using the equation below? - Budget = (price of item 1 x quantity of item 1) + (price of item 2 x quantity of item 2) - Another way to write is would be p(x) + p(y) = 50, where p = price, x = quantity of item 1, y = quantity of item 2 - Substitute the symbols in the equation above for the actual numbers from our example and see if the equation is correct, i.e. if p(x) + p(y) is actually equal to 50.
20 minutes	● Help your family put together a weekly or monthly budget of all expenses using the template below:

	Weekly budget		
Item	Price	Quantity	Total

ASSESSMENT CRITERIA

- Critical thinking displayed in thinking about bartering vs money
- Creativity in the design of the currency notes
- Accuracy of pricing shop items
- Accuracy in performing mathematical tasks, especially mental math
- Critical thinking in reflecting on factors affecting demand and supply
- Critical thinking in weekly budget design.

ADDITIONAL ENRICHMENT ACTIVITIES

- The learner can conduct pricing and other calculations using decimals
- The learner can explore different price scenarios and their implications on the budget – what happens to your budget when prices of one good rise or fall?

MODIFICIATIONS FOR SIMPLIFICATION

- The learner can skip the supply and demand activity.