

MONEY MATTERS (LEVEL 2)

Description	The learner will explore the concept of money as a medium of exchange and understand how it has evolved over time, how money is used as a medium of exchange and create their own money. We will also learn about the concepts of demand and supply as well as consumers and producers.
Leading Question	Why do we value money?
Subjects Covered	Math, art
Total Time Required	5.5 hours over 5 days
Supplies Required	<ul style="list-style-type: none"> Pen, paper, scissors, color pencils (optional), ruler or solid item with straight edge, household items for pretend shop activity
Learning Outcomes	<p>By the end of this project, learners will be able to:</p> <ol style="list-style-type: none"> 1. Understanding of the differences between money and bartering, and the advantages of the former over the latter 2. Understanding of supply and demand 3. Understanding the concepts of producers and consumers in a market and their competing interests 4. Understanding of a budget 5. History of money and it's evolution 6. Enhance learners critical thinking and creativity skills 7. Enhance learners presentation and communication skills
Previous Learning	Multiplication within 10.
Supervision required	Medium

DAY 1

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

Suggested Duration	Activity and Description
10 minutes	<ul style="list-style-type: none"> In this project, we will explore one 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 5-6 things you can do with money (e.g., buying things, paying for school, donating etc.) and the people involved when it happens. Learners can use the table below:

35 minutes	<table border="1"> <thead> <tr> <th>Things you can do with money</th> <th>Person involved 1</th> <th>Person involved 2 (or more)</th> </tr> </thead> <tbody> <tr> <td>Buying things</td> <td>Buyer or customer</td> <td>Shopkeeper</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> From the list, what do you notice about the things you can do with money? 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? Interview your parents/family members or neighbours on what people used to use to buy things long ago. Use the following questions to collect more information <ul style="list-style-type: none"> Has money always existed? In what forms did money exist in the past? What did people use to buy/get the things they needed in the past? <p>Responses given will include barter trade, cattle, cowrie shells etc.</p> <ul style="list-style-type: none"> 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. 	Things you can do with money	Person involved 1	Person involved 2 (or more)	Buying things	Buyer or customer	Shopkeeper									
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30 minutes	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Get at least 2 other players from your household or neighbors/friends Imagine that every human has three needs – food, clothing, and entertainment or education. On a sheet of paper, draw the following table <table border="1"> <thead> <tr> <th>Player</th> <th>Food</th> <th>Clothing</th> <th>Medicine</th> <th>Total points</th> </tr> </thead> <tbody> <tr> <td colspan="4">Round one</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> 	Player	Food	Clothing	Medicine	Total points	Round one									
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<p>15-20 minutes</p>	<ul style="list-style-type: none"> ● Reflect on the pros and cons of the barter system by answering the following questions: <ul style="list-style-type: none"> - 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? ● Literacy extension: 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? 										
<p>10 minutes</p>	<ul style="list-style-type: none"> ● Compare money-based exchanges to bartering, what are some things we can do with one that we cannot do with the other? Learners can ask an adult or parent for support to come up with the comparisons if needed. <table border="1" data-bbox="407 1745 1341 1791"> <tr> <td data-bbox="407 1745 873 1791">Money usage</td> <td data-bbox="873 1745 1341 1791">Bartering</td> </tr> </table>	Money usage	Bartering								
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10 minutes	<p>Present the comparison between money usage and bartering to your family/parents for review and feedback. Your family/parents will provide feedback and suggestions on how to improve them.</p> <p>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 all items into smaller parts, but we can spend less money or more money to get the exact size and quantity of items we need.</p>								

DAY 2

Today you will learn about how money is used.

Suggested Duration	Activity and Description
5 minutes	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Many things were used as money in the past. Try to use an item as money at a local grocery store: <ul style="list-style-type: none"> 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.

	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● Create your own paper and/or coin money: <ul style="list-style-type: none"> - On a piece of paper, cut out 30 rectangles for your paper bills or 30 round shapes for your 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, 200 and 500. - On your rectangular cutouts, make 5 bills of each denomination, i.e., 5 ones, 5 fives, 5 tens etc. - On the circular cutouts, make 2 coins of each denomination. You can create coins that are 1, 2, 5, 10, 20 and 50 cents. - Design your currency by coloring it and drawing interesting things on it like important buildings 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. Feel free to either use an already existing name or to come up with your own name for your currency.
10 minutes	<ul style="list-style-type: none"> ● Numeracy activity: <ul style="list-style-type: none"> - Calculate the perimeter of one of your rectangular paper bills by adding the length of all the sides of the bill. Use a ruler or your finger or any other straight-edged object to measure the length. You can give one joint of your finger a value like 2 and use that to calculate the perimeter if a ruler is not available. - Using multiplication, show how many coins you will have if you make 5 rows each consisting of 23 coins (i.e. each row will have 23 coins and there are 5 rows in total) - Calculate the radius and diameter of one of your coins. Start by folding the paper coin in half then draw a straight line where the fold line is, going from one edge of the circle to the other. This is the diameter. Half of this is the radius. What is the diameter and radius of your coin?

DAY 3

Today you will explore the concept of demand.

Suggested Duration	Activity and Description
15 minutes	<ul style="list-style-type: none"> ● You will set up a shop.

	<ul style="list-style-type: none"> - 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 in your prices. - 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 also create items to sell using materials available at home, or even make tea, juice or cookies/sandwiches to sell to their family members, neighbours and friends. - In that case, learners will determine the price of the items by finding the cost of each ingredient that goes into making the item and adding a markup of 10-30% of the total cost in order to ensure that they make some profit. The final figure will be the price of the item. <ul style="list-style-type: none"> o 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 plus an extra 10-30% of the total cost as a markup so they can make a profit. See formula below: <p style="text-align: center;"><i>Total cost = sum of all the costs of ingredients</i></p> <p style="text-align: center;"><i>If we want profit of 30% of the costs, then Profit = 30% x total cost</i></p> <p style="text-align: center;"><i>Price of item = Total cost + Profit</i></p> 									
<p>15 minutes</p>	<ul style="list-style-type: none"> ● Invite your family to the shop and give them money to spend. The learner will give them the money created on day 2. 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 so that more people can buy it. Try to use items that you have plenty of such as fruits, candy, t-shirts, pens etc. 									
<p>5 minutes</p>	<ul style="list-style-type: none"> ● Create the following demand table in your notebook: <table border="1" data-bbox="394 1602 1328 1787"> <thead> <tr> <th>Item</th> <th>Price</th> <th>Number of people who bought it</th> </tr> </thead> <tbody> <tr> <td>e.g., candy</td> <td>\$3</td> <td>4</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Item	Price	Number of people who bought it	e.g., candy	\$3	4			
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10 minutes	<ul style="list-style-type: none"> ● Reflection – write your reflections in your notebook: <ul style="list-style-type: none"> - The number of people who bought an item (and those who want and can buy it but couldn't because there isn't enough of it) 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	<ul style="list-style-type: none"> ● 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? 		

DAY 4

Today you will understand the concept of supply.

Suggested Duration	Activity and Description
5 minutes	<ul style="list-style-type: none"> ● People buying things in a store are called consumers, and the people making the things sold in a store 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	<ul style="list-style-type: none"> ● 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: <ul style="list-style-type: none"> - A shoe that can get you \$60 if you sell it. - A juice bottle that can get you \$2. - Which item will you produce more of and why?
15 minutes	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● 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, as a producer, the higher the price, the more you want to sell that item since it will make you more money.

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

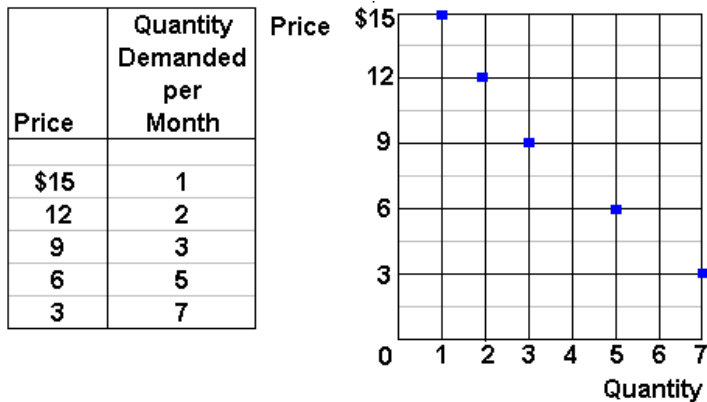
DAY 5

Today you will understand the concept of a budget.

Suggested Duration	Activity and Description
5 minutes	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Create a monthly supply of essentials to understand how budgets work: <ul style="list-style-type: none"> Make a list of the 10 most important essential goods at home that are important to you. You can consult your parents or family members if you are not sure of the most important essential goods at home. 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 (total amount of money available to spend) for the month Add the cost of all the items you gathered or listed Subtract the total cost of item from the budget. Do you have more or less money than the total cost of the items you need?
10 minutes	<ul style="list-style-type: none"> Repeat this with a higher budget of \$200. 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. One can save the money that is left after the purchase of all the important essential goods in a secure place such as with your parents, a piggy bank or bank account for future use. Write your observations in your notebook.

30 minutes	<ul style="list-style-type: none"> Let's understand through a simple example how a budget is broken down: <ul style="list-style-type: none"> Your budget is made up of the cost of each item you purchase. Let's imagine that you plan to purchase only 2 items, apples and bananas. Can you write this as an equation? It would look something like: apples + bananas = total 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 <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Item</th> <th>Price</th> <th>Quantity</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Apple</td> <td>\$2</td> <td>1</td> <td>2 x 1 = 2</td> </tr> <tr> <td>Banana</td> <td>\$5</td> <td>10</td> <td>5 x 10 = 50</td> </tr> <tr> <td colspan="3" style="text-align: center;">Total</td> <td>2+ 50 = 52</td> </tr> </tbody> </table> <ul style="list-style-type: none"> 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! 	Item	Price	Quantity	Total	Apple	\$2	1	2 x 1 = 2	Banana	\$5	10	5 x 10 = 50	Total			2+ 50 = 52								
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20 minutes	<ul style="list-style-type: none"> Help your family put together a weekly or monthly budget of all expenses using the template below: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="4">Weekly budget</th> </tr> <tr> <th>Item</th> <th>Price</th> <th>Quantity</th> <th>Total</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Weekly budget				Item	Price	Quantity	Total																
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20 minutes	<p>Thinking through everything you have learnt over the past 4 days, learners take note of TWO of the following:</p> <ul style="list-style-type: none"> What is the most important point you have learnt through this project? What are you finding challenging, puzzling or difficult to understand? What question would you most like to discuss further? What is something you found interesting? 																								

Additional enrichment activities:	<ul style="list-style-type: none"> The learner can conduct pricing and other calculations using decimals Older learners can plot their demand and supply curves on a coordinate plane: <ul style="list-style-type: none"> Create the following graph in your notebook and plot coordinates according to your demand table
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- 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.

**Modifications
for
simplification**

The learner can skip the supply and demand activity.

ASSESSMENT CRITERIA

- Critical thinking displayed in thinking about bartering vs money
- Creativity in the design of the currency notes
- Accuracy of pricing shop items based on realistic prices
- Accuracy in performing mathematical tasks, especially mental math
- Critical thinking in weekly budget design