




MONEY MATTERS

Ages 4-7 (Level 1)

Description:	The learner will explore the concept of money and understand how it evolved over time.
Leading question:	Why do we value money?
Age group:	4-7
Subjects:	Economics, Math
Total time required:	4 hours over 4 days
Self-guided / Supervised activity:	High supervision
Resources required:	Paper, pens, color pencils (optional), household items such as food, clothing, toys etc. for pretend shop activity

Day	Time	Activity and Description											
1	10 minutes	<p>In this project, we will understand what money is and how it works. The learner will reflect on these questions: what is money? What does it help us do?</p> <p>Learners will list 5 things you can do with money (e.g. buying things, paying for school, donating money to charity etc.)</p> <p>From the list, the learner will observe that there is always an exchange happening. We trade money for something else using coin or paper currency or electronic money (with cards). The learner will think: can you think of using anything else to make these exchanges? Did you know that money always existed? We just didn't call it money and we didn't always have paper bills or any of the other ways we now consider money.</p>											
	30 minutes	<p>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. The learner will play the following game with his or her family to understand the barter system:</p> <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" style="margin-left: 40px;"> <thead> <tr> <th>Player</th> <th>Item 1</th> <th>Item 2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> </tbody> </table>	Player	Item 1	Item 2	1			2			3	
Player	Item 1	Item 2											
1													
2													
3													

	15 minutes	<ul style="list-style-type: none"> Go around your house collecting 2-4 items (or more depending on the number of players) When the game starts, players will walk up to each other to try and exchange the items they have with each other. Make sure that you trade with all players. After each round, write in the table the items that you ended up with at the end of the round. You can also draw them <p>The learner will reflect on the pros and cons of the barter system by answering the following questions in his or her notebook:</p> <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? Give reasons for your answer.
2	10 minutes	Today, the learner will create his or her own currency!
	30 minutes	<p>The learner will think about five items he or she would buy if they had money and draw or list them.</p> <p>The learner will now create his or her own paper:</p> <ul style="list-style-type: none"> On a piece of paper, cut out at least 10 rectangular shapes for your paper bills. You can also cut out other fun shapes! Think about the currency denominations you will use – these are the numbers printed on paper money indicating their worth. What numbers have you seen on paper bills before? In Qatar, for example, the currency denominations used are 1, 5, 10, 50, 100, and 500. On your rectangular cutouts, make at least 2 bills of some denominations, i.e. 2 ones, 2 fives, 2 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!
	5 minutes	<p>The learner will reflect:</p> <ul style="list-style-type: none"> Can you purchase any of the items from your list using this money? You can ask your parents how much the items are worth Do you need more or less money?
	15 minutes	<p>The learner will try to earn money by helping her or his parents with housework:</p> <ul style="list-style-type: none"> The learner can help with making beds, cleaning tables and floors, washing dishes etc. Parents can pay learners depending on the difficulty of the chore At the end of the day or week, the learner will calculate how much money she or he has made The learner will think about what items they can now afford with the amount of money they made!

	10 minutes	<p>Numeracy activity:</p> <ul style="list-style-type: none"> • After creating your own currency and writing numbers on them, add the numbers on the bills and find out the total amount of money you have • Arrange the paper bills or coins in ascending and descending order 								
3	30 minutes	<p>Today, the learner will create her or his own coins and understand how coins and paper bills are related!</p> <p>The learner will reflect on the types of coins she or her has seen and draw them, writing their value next to them. She or he can ask their parents for coins they have and visit a shopkeeper with a parent to see the different kinds of coins. An example has been done below:</p> <table border="1" data-bbox="410 674 1344 1251"> <thead> <tr> <th data-bbox="410 674 967 709">Coin</th> <th data-bbox="967 674 1344 709">Value</th> </tr> </thead> <tbody> <tr> <td data-bbox="410 709 967 1251"> <p>Euro cents</p>  <p>Source: CC BY-SA</p> </td> <td data-bbox="967 709 1344 1251">20 cents</td> </tr> <tr> <td data-bbox="410 1251 967 1304"></td> <td data-bbox="967 1251 1344 1304"></td> </tr> <tr> <td data-bbox="410 1304 967 1356"></td> <td data-bbox="967 1304 1344 1356"></td> </tr> </tbody> </table> <p>At the grocery store or corner shop, the learner will ask the shopkeeper what she or he can buy with coins.</p> <p>The learner will notice that coins have a very small value and they can only be used to buy small or cheap items.</p> <p>The learner will understand the relationship between coins and bank notes:</p> <ul style="list-style-type: none"> • The learner will cut out 10 round shapes (or other fun shapes) to make some coins • The learner will make 2 coins of each denomination of any currency of his or her choice. The denominations of the Euro, for example, are 1, 2, 5, 10, 20 and 50 cent, €1 and €2. Even 1 and 2 Euros are available only as coins. • Now, the learner will try to add as many coins as he or she can to get one dollar, Euro or other currency. Younger learners can simply add or subtract the values of any coins of their choice. 	Coin	Value	<p>Euro cents</p>  <p>Source: CC BY-SA</p>	20 cents				
Coin	Value									
<p>Euro cents</p>  <p>Source: CC BY-SA</p>	20 cents									
	30 minutes									

4	20 minutes	<p>Today, the learner will have a shopping party with his or her family!</p> <p>The learner will create his or her own coins!</p> <ul style="list-style-type: none"> • First, the learner will decide on the denominations of their currency. • Second, he or she will make at least 2 cutouts per denomination and write the values of the coins on each cutout • Third, he or she will give the coins a creative name!
	20 minutes	<p>Now, the learner will agree with his or her family members on items they are willing to sell for the shopping party. The learner can even make his or her own items like birthday cards, cookies, juice etc. and sell them. Each household member will gather their items just like they did on day 1, but this time, they will use the money and coins created by the learner to “purchase” these items. Everyone must think of a price for their items before the start of the party.</p>
	20 minutes	<p>(Optional) Finally, the learner will think of how she or he can actually start a business to make money to buy some items like candy, stationery for school etc. when they are a little older:</p> <ul style="list-style-type: none"> • The learner will reflect on their interests – e.g. singing, cooking, coloring • They will then reflect on different opportunities like setting up a lemonade stand, selling artwork, walking neighbors’ dogs etc. • The learner will illustrate their business by drawing themselves doing these activities • The learner will also think of their future aspiration and how they want to make money when they grow up and illustrate this through a creative drawing • The learner will share all their drawings with their family and discuss what they would do with the money they earn from this business
Assessment Criteria:		<ul style="list-style-type: none"> - Critical thinking displayed in thinking about bartering vs money - Creativity in the design of the currency notes and coins - Accuracy of pricing shop items - Accuracy in performing mathematical tasks, especially mental math - Critical thinking and creativity in enterprising/money making plan

Learning outcomes:	<ul style="list-style-type: none"> - Understanding of the differences between money and bartering, and the advantages of the former over the latter - Understanding of the uses of money - Understanding the different denominations of currency
Required previous learning:	Addition and subtraction within 100
Inspiration:	n/a
Additional enrichment activities:	The learner can practice subtraction using larger values of the paper and coin money
Modifications for simplification:	The learner can skip coins and denominations

Ages 8 to 10 (Level 2)

Description:	The learner will explore the concept of money and understand how it evolved over time.
Leading question:	Why do we value money?
Age group:	8-10
Subjects:	Economics, mathematics
Total time required:	5.5 hours over 5 days
Self-guided / Supervised activity:	Medium supervision
Resources required:	Pen, paper, scissors, color pencils (optional), ruler or solid item with straight edge, household items for pretend shop activity

Day	Time	Activity and Description																									
1	10 minutes	<p>In this project, we will explore some of the functions of money and understand how it works. The learner will reflect on these questions: what is money? What does it help us do? The learner will then list 5-6 things you can do with money (e.g. buying things, paying for school, donating etc.)</p> <p>From the list, the learner will observe that there is always an exchange happening. We trade money for something else using coin or paper currency or electronic money (with cards). The learner will 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.</p>																									
	35 minutes	<p>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. The learner will play the following game with his or her family to understand the barter system:</p> <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 medicine. You can also create your own categories • On a sheet of paper, draw the following table <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Player</th> <th>Food</th> <th>Clothing</th> <th>Medicine</th> <th>Total points</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">Round one</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> • 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. 	Player	Food	Clothing	Medicine	Total points	Round one					1					2					3				
Player	Food	Clothing	Medicine	Total points																							
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		<ul style="list-style-type: none"> • 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	<p>The learner will reflect on the pros and cons of the barter system by answering the following questions in his or her notebook:</p> <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? 										
	10 minutes	<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 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?</p> <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="width: 50%;">Money</th> <th style="width: 50%;">Bartering</th> </tr> </thead> <tbody> <tr> <td>e.g. We can use it to buy anything</td> <td>We can only get what we need if someone wants what we have to offer</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	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						
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e.g. We can use it to buy anything	We can only get what we need if someone wants what we have to offer											
2		<p>Today, we will learn about how money is used. Before we had paper bills, we used other items as money. Some examples:</p> <ul style="list-style-type: none"> • Seashells • Weapons • Salt 										

5 minutes		The learner will 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		<p>Many things were used as money in the past. The learner will try to use an item as money at a local grocery store:</p> <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 his or her 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.
20 minutes		<p>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?</p> <p>The learner will now create his or her own paper and/or coin money:</p> <ul style="list-style-type: none"> • 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		<p>Numeracy activity:</p> <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. • 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 are the diameter and radius of your coin?												
3	15 minutes	Today, the learner will explore the concept of demand. The learner 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 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	The learner will invite his or her family to the shop and give them money to spend. The learner 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	The learner will create the following demand table in her or his notebook: <table border="1" style="margin-left: 20px;"> <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> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Item	Price	Number of people who bought it	e.g. candy	\$3	4						
Item	Price	Number of people who bought it												
e.g. candy	\$3	4												
	10 minutes	Reflection – write your reflections on the following 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 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	The learner will 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?												

4	5 minutes	Today, the learner will understand the concept of supply. 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: <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 											
	15 minutes	The learner will write in his or her notebook a paragraph about which item they will produce more of and why. He or she can even 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 <table border="1" data-bbox="410 1131 1344 1352"> <thead> <tr> <th>Item</th> <th>Price</th> <th>How many units of this item I would sell as a producer</th> </tr> </thead> <tbody> <tr> <td>e.g. candy</td> <td>\$3</td> <td>2</td> </tr> <tr> <td>dress</td> <td>\$50</td> <td>5</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Item	Price	How many units of this item I would sell as a producer	e.g. candy	\$3	2	dress	\$50	5		
Item	Price	How many units of this item I would sell as a producer											
e.g. candy	\$3	2											
dress	\$50	5											
5	5 minutes	Today the learner will understand the concept of a budget. Ask the 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	The learner will 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. • 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 											

	<p>10 minutes</p> <p>30 minutes</p>	<ul style="list-style-type: none"> • 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? <p>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. Write your observations in your notebook.</p> <p>Let's understand through a simple example how a budget is broken down:</p> <ul style="list-style-type: none"> • 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 <table border="1" data-bbox="410 1035 1344 1182"> <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">Total</td> <td>2+ 50 = 52</td> </tr> </tbody> </table> <p>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!</p>	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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<p>20 minutes</p>		<p>The learner will help his or her family put together a weekly or monthly budget of all expenses using the template below:</p> <table border="1" data-bbox="410 1467 1344 1690"> <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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<p>Assessment Criteria:</p>		<ul style="list-style-type: none"> - 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 																								

Learning outcomes:	<ul style="list-style-type: none"> - Understanding of the differences between money and bartering, and the advantages of the former over the latter - Understanding of supply and demand - Understanding the concepts of producers and consumers in a market and their competing interests - Understanding of a budget - History of money and it's evolution 												
Required previous learning:	Multiplication within 10												
Inspiration:	n/a												
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 <div style="display: flex; align-items: center; justify-content: center;"> <table border="1" style="margin-right: 20px;"> <thead> <tr> <th>Price</th> <th>Quantity Demanded per Month</th> </tr> </thead> <tbody> <tr> <td>\$15</td> <td>1</td> </tr> <tr> <td>12</td> <td>2</td> </tr> <tr> <td>9</td> <td>3</td> </tr> <tr> <td>6</td> <td>5</td> </tr> <tr> <td>3</td> <td>7</td> </tr> </tbody> </table> </div> <p style="text-align: center;">Source: http://www2.harpercollege.edu/mhealy/eco212i/lectures/s&d/s&d.htm</p> <ul style="list-style-type: none"> • 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 	Price	Quantity Demanded per Month	\$15	1	12	2	9	3	6	5	3	7
Price	Quantity Demanded per Month												
\$15	1												
12	2												
9	3												
6	5												
3	7												

	<ul style="list-style-type: none"> • 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

Ages 11 to 14 (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?
Age group:	11-14
Subjects:	Economics, mathematics
Total time required:	6.3 hours over 5 days
Self-guided / Supervised activity:	Low supervision
Resources required:	Pen, paper, scissors, color pencils (optional), ruler or solid item with straight edge, household items for pretend shop activity

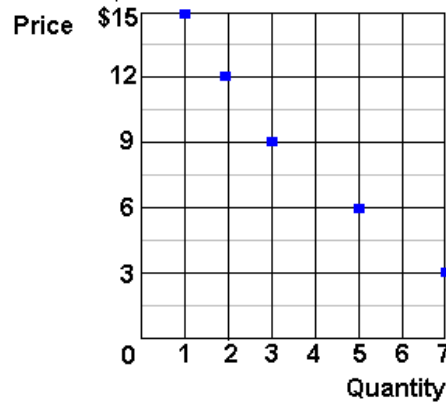
Day	Time	Activity and Description																								
1	10 minutes	<p>In this project, we will explore some of the functions of money and understand how it works. The learner will reflect on these questions: what is money? What does it help us do? The learner will then list 5-10 things you can do with money (e.g. buying things, paying for school, donating etc.)</p> <p>From the list, the learner will observe that there is always an exchange happening. We trade money for something else using coin or paper currency or electronic money (with cards). The learner will 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 didn't always have money as we know it today – we didn't always use the same paper bills or any of the other means of exchange we now consider money</p>																								
	30 minutes	<p>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. The learner will play the following game with his or her family to understand the barter system:</p> <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 medicine. You can also create your own categories • On a sheet of paper, draw the following table <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Player</th> <th>Food</th> <th>Clothing</th> <th>Medicine</th> <th>Total points</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">Round one</td> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> • 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. 	Player	Food	Clothing	Medicine	Total points	Round one					1					2					3			
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	<p>15 minutes</p> <p>10 minutes</p>	<ul style="list-style-type: none"> • 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 <p>The learner will reflect on the pros and cons of the barter system by answering the following questions in his or her notebook:</p> <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? <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 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?</p> <table border="1" data-bbox="410 1465 1344 1717"> <thead> <tr> <th>Money</th> <th>Bartering</th> </tr> </thead> <tbody> <tr> <td>e.g. We can use it to buy anything</td> <td>We can only get what we need if someone wants what we have to offer</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	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						
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e.g. We can use it to buy anything	We can only get what we need if someone wants what we have to offer											
2		<p>Today, we will learn about how money is used. Before we had paper bills, we used other items as money. Some examples:</p> <ul style="list-style-type: none"> • Seashells • Weapons • Salt 										

	5 minutes	The learner will 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	<p>Many things were used as money in the past. The learner will try to use an item as money at a local grocery store:</p> <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 his or her 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. <p>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?</p>
	20 minutes	<p>The learner will now create his or her own paper and/or coin money:</p> <ul style="list-style-type: none"> • 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!
	10 minutes	<p>Numeracy activity:</p> <ul style="list-style-type: none"> • 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 $\pi = 3.14$)
3	15 minutes	<p>Today, the learner will explore the concept of demand.</p> <p>The learner will set up a shop:</p>

	15 minutes	<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 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	<p>The learner will invite his or her family to the shop and give them money to spend. The learner can give “customers” different amounts to see how they will spend it and inform them that have to spend all of it.</p> <p>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.</p>												
	5 minutes	<p>The learner will create the following demand table in her or his notebook:</p> <table border="1" data-bbox="410 1136 1343 1320"> <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> <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	<p>Reflection – write your reflections on the following in your notebook:</p> <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 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	<p>The learner will 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?</p>												
	10 minutes	<p>Create the following graph in your notebook and plot coordinates according to your demand table</p>												

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

4

5 minutes

Today, the learner will understand the concept of supply.

People paying for items in a store are called **consumers**, but the people making the items are **producers**. As a consumer, you are spending your money, but as a producer, you are making money from the items you produce. 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	The learner will write in his or her notebook a paragraph about which item they will produce more of and why. He or she can even 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											
		<table border="1"> <thead> <tr> <th>Item</th> <th>Price</th> <th>How many units of this item I would sell as a producer</th> </tr> </thead> <tbody> <tr> <td>e.g. candy</td> <td>\$3</td> <td>2</td> </tr> <tr> <td>Dress</td> <td>\$50</td> <td>5</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Item	Price	How many units of this item I would sell as a producer	e.g. candy	\$3	2	Dress	\$50	5		
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	15 minutes	The learner will then plot supply in a similar plot to the demand graph he or she created yesterday using price as x-axis and quantity as y-axis.											
	15 minutes	The learner will reflect on some of the factors that affect supply and demand, and list them in his or her notebook. Prompts: <ul style="list-style-type: none"> • 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? 											
5		Today the learner will understand the concept of a budget.											
	5 minutes	Ask your parent or family member who is working or used to work how they decided to spend the money they earned. Another cool thing that money allows us to do is to save and budget. 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	The learner will create a monthly supply of essentials to understand how budgets work:											

	10 minutes	<ul style="list-style-type: none"> • 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? 																
	30 minutes	<p>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 of money that is left over after you pay for everything that you need. Write your observations in your notebook.</p> <p>Let's understand through a simple example how a budget is broken down:</p> <ul style="list-style-type: none"> • 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 <table border="1" data-bbox="410 1251 1344 1396"> <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>$2 \times 1 = 2$</td> </tr> <tr> <td>Banana</td> <td>\$5</td> <td>10</td> <td>$5 \times 10 = 50$</td> </tr> <tr> <td colspan="3">Total</td> <td>$2 + 50 = 52$</td> </tr> </tbody> </table>	Item	Price	Quantity	Total	Apple	\$2	1	$2 \times 1 = 2$	Banana	\$5	10	$5 \times 10 = 50$	Total			$2 + 50 = 52$
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	10 minutes	<p>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!</p> <p>Optional/advanced: Can you represent the budget in the example using the equation below?</p> <ul style="list-style-type: none"> • 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	<p>The learner will help his or her family put together a weekly or monthly budget of all expenses using the template below:</p> <table border="1" data-bbox="410 348 1343 571"> <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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Assessment Criteria:	<ul style="list-style-type: none"> - 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 																								

Learning outcomes:	<ul style="list-style-type: none"> - Understanding of the history of money and its evolution - Understanding of the differences between money and bartering, and the advantages of the former over the latter - Understanding of supply and demand - Understanding the concepts of producers and consumers in a market and their competing interests - Understanding of budgeting
Required previous learning:	Multiplication within 10
Inspiration:	n/a
Additional enrichment activities:	<ul style="list-style-type: none"> - 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?
Modifications for simplification:	The learner can skip the supply and demand activity