

A Place to Learn

Fill in the circle to complete the sentence. Then answer questions 3 and 4.

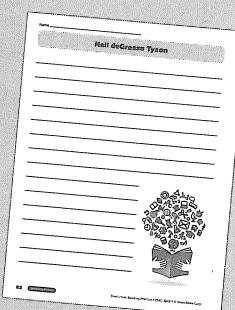
1. Neil deGrasse Tyson is the _____ of the Hayden Planetarium.
Ⓐ builder
Ⓑ owner
Ⓒ director
2. The _____ has a curved ceiling where people can watch space programs.
Ⓐ American Museum of Natural History
Ⓑ Rose Center
Ⓒ Hayden Planetarium
3. Explain some of the things that happen in a planetarium.

4. Do you think you would like to be an astrophysicist? Explain your reasons.

Write About the Topic

Use the Writing Form to write about what you read.

Write to tell about Neil deGrasse Tyson and the Hayden Planetarium. Tell two details about each.



Estimating Cost

Level 1

Words to Know list, Reading Selection, and Reading Comprehension questions

Smart Spending

Fill in the circle to calculate the price.

Smart Spending

It's important to be smart about money when you shop. Sometimes, people pick up too many items. They don't have enough money to pay for everything. One way to make sure you have enough money is to estimate cost. Make a thoughtful guess about how much you will spend.

Estimating while you shop. Bring paper and a pencil. Choose an item. Think about the price. You don't need to write down the exact price. Just round up or round down. Write the rounded price of your item on the paper. Write the rounded prices of other items. Then add the prices together. If you don't have enough money, put something back. Look for another item like it at a lower price. Estimating will help you be a smart shopper.

Estimate

- Round down if a price is less than 50 cents.
- Round up if a price is more than 50 cents.

Shop

Put
wrap
pot
cup

Journal

Journal shopping for a birthday gift
about a book or toy.

Notation

Notation buying for a \$10.00
about a book or toy.

Estimating Chart A

Words to Know

Smart Spending

important
smart
money
items
estimate
cost
spend
price
exact
round

Level 2 ■ ■

Words to Know list, Reading Selection, and Reading Comprehension questions

Using Math to Shop			
Fill in the circle to complete the sentence.	d 4.		
<h2>Using Math to Shop</h2> <p>It can be fun to buy things. You have to make sure you have enough money to pay for everything though. You can figure out if you have enough money by estimating. Round up or round down the prices to find the total cost.</p> <p>Let's say you are going to the corner store with your friends. You have \$5.00. You want to buy a bottle of orange juice before you go. You bought one for 50 cents. You know it costs \$1.67. Sixty-seven cents is more than 50 cents. Round up the cost to the nearest dollar. Your orange juice will cost you \$2.00. Because you have \$5.00, you can buy the orange juice.</p> <p>Let's pretend you see a yard sale on the way home. You want to buy a jump rope for 75 cents. Will you have enough money? The jump rope and the orange juice both cost \$1.00. The total cost is \$2.00. Seven fifty cents is more than 50 cents. Round up to \$1.00. You can buy the jump rope for about \$1.00. The orange juice costs \$1.00. The total cost for both will be about \$2.00. You can buy both items, and you will have money left over!</p>			
<input type="radio"/> I have enough money. <input type="radio"/> I do not have enough money.	\$1.67 <small>Estimated cost = \$2.00</small>		
			
			
<table border="1"> <tr> <td style="text-align: center;"> \$0.75 <small>Estimated cost = \$1.00</small> </td> </tr> <tr> <td style="text-align: center;"> <small>orange juice \$1.00</small> <small>jump rope \$1.00</small> <small>total \$2.00</small> </td> </tr> </table>		\$0.75 <small>Estimated cost = \$1.00</small>	<small>orange juice \$1.00</small> <small>jump rope \$1.00</small> <small>total \$2.00</small>
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<small>orange juice \$1.00</small> <small>jump rope \$1.00</small> <small>total \$2.00</small>			
<small>National Standards for Grades K-2</small>			
<small>Estimating Cost Page 6</small>			

Level 3 ■ ■ ■

Words to Know list, Reading Selection, and Reading Comprehension questions

	<p>Name</p> <p>Do I Have Enough Money?</p> <p>Fill in the circle to complete it.</p> <p>Do I Have Enough Money?</p> <p>When you shop, you should estimate the cost as you go. This means you should make quick guesses about how much you're spending. Think about each item's price as you choose it. You don't need to remember the exact prices. You can round up or round down. This will help you keep track of the total cost. It helps to make a list of prices as you shop. Write down the rounded numbers.</p> <p>Remember these two rules for rounding:</p> <p>Rule 1 If a price ends in 50 cents or more than 50 cents, round up. • \$1.50 ends in 50 cents • \$1.49 ends in less than 50 cents • Round up to \$2.00.</p> <p>Rule 2 If a price ends in 50 cents or less than 50 cents, round down. • At \$1.49 cents ends in 49 cents • Round down to \$1.00.</p> <p>Add the rounded amounts of each item to find the total cost. So far, you would have \$13.00 for bread plus \$4.00 for jam. You know you have about \$20.00. A jar of peanut butter costs \$2.75. You can round the price up to \$3.00. This makes your new total \$16.00 total. You only have \$20.00, though. You don't have enough money for all three items. This means you have to put one item back. Estimating will keep you from trying to buy too many things. You can also try to find items like yours at lower prices. That's smart shopping!</p>  <p>National Sock Company • 800-222-2222</p> <p>Estimating Cost (\$13)</p> <p>Estimating Cost (\$20)</p>
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Assemble the Unit

Reproduce and distribute one copy for each student:

- Visual Literacy page: Rounding Numbers and Prices, page 91
 - Level 1, 2, or 3 Reading Selection and Reading Comprehension page and the corresponding Words to Know list
 - Graphic Organizer of your choosing, provided on pages 180–186
 - Writing Form: Estimating Cost, page 92

Introduce the Topic

Use the Visual Literacy page to review the rules for estimating numbers and prices with students. Write some prices to be rounded up or down on the board; for example: \$1.25 and \$1.89. Guide students in rounding the prices to the nearest dollar amount using the rules.

Read and Respond

Form leveled groups and review the Words to Know lists with each group of students. Instruct each group to read their selection individually, in pairs, or as a group. Have students complete the Reading Comprehension page for their selection.

Write About the Topic

Read aloud the leveled writing prompt for each group. Tell students to use the Graphic Organizer to plan their writing. Direct students to use their Writing Form to respond to their prompt.

Rounding Numbers and Prices

Numbers

If the number is 1, 2, 3, or 4, round down.	If the number is 5, 6, 7, 8, or 9, round up.
0 1 2 3 4 5 6 7 8 9 10	← round down to 0 → round up to 10

Prices

If the cost is less than 50 cents, round down.	If the cost is 50 cents or more, round up.
\$1.00... \$1.43 \$1.50... \$2.00	← round down to \$1.00 → round up to \$2.00

Rounding Numbers and Prices

Numbers

If the number is 1, 2, 3,
or 4, round down.

0 1 2 3 4



round down to 0

If the number is 5, 6, 7, 8,
or 9, round up.

5 6 7 8 9 10



round up to 10

Prices

If the cost is less than
50 cents, round down.

\$1.00... \$1.43



round down to \$1.00

If the cost is 50 cents
or more, round up.

\$1.50... \$2.00



round up to \$2.00

Estimating Cost



Words to Know

Smart Spending

important

smart

money

items

estimate

cost

spend

price

exact

round

Words to Know

Using Math to Shop

buy

money

estimating

round

prices

total

cost

store

nearest

yard sale

Words to Know

Do I Have Enough Money?

shop

estimate

cost

spending

price

exact

round

total

item

plus

Estimating Cost ■

Estimating Cost ■■

Estimating Cost ■■■



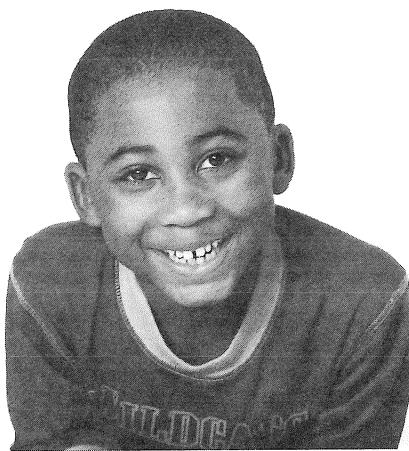
Smart Spending

It's important to be smart about money when you shop. Sometimes, people pick out too many items. They don't have enough money to pay for everything. One way to make sure you have enough money is to estimate cost. Make a thoughtful guess about how much you will spend.

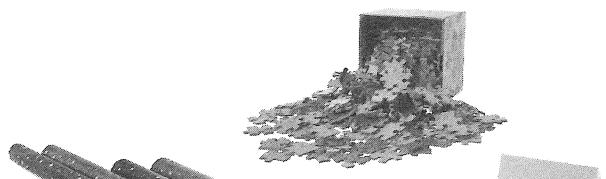
Try estimating while you shop. Bring paper and a pencil. Choose an item. Think about the price. You don't need to write down the exact price. You can round up or round down. Write the rounded price of your item on the paper. Write the rounded prices of other items. Then add the prices together. If you don't have enough money, put something back. Look for another item like it at a lower price. Estimating will help you be a smart shopper.

Rules

- **Round down** if a price ends with **less** than 50 cents.
- **Round up** if a price ends with 50 cents or **more**.



Jamal is shopping for a friend's birthday.
Jamal has \$6.00 to spend.



Shopping List

puzzle	\$3.00	
wrapping	paper	\$1.00
card	\$1.00	
total		<u>\$5.00</u>

Smart Spending

Fill in the circle to complete the sentence. Then answer questions 3 and 4.

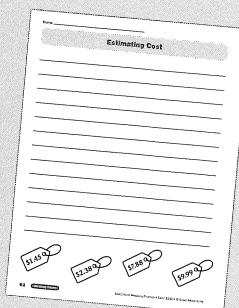
1. You can guess how much money you will spend by _____.
 (A) estimating
 (B) shopping
 (C) paying
2. To estimate how much you are spending, _____ of your items.
 (A) add together the exact prices
 (B) round up or round down the prices
 (C) don't worry about the prices
3. The puzzle Jamal chose cost \$2.79. How did Jamal estimate the cost on his list?

4. What do you think can happen if people shop without estimating cost?

Write About the Topic

Use the Writing Form to write about what you read.

Write a letter to a friend about how to estimate cost while shopping. Explain why it's important.



Using Math to Shop

It can be fun to buy things. You have to make sure you have enough money to pay for everything, though. You can figure out if you have enough money by estimating. Round up or round down the prices to find the total cost.

Let's say you are going to the corner store with your father. You have \$5.00. You want to buy a bottle of orange juice. You have bought orange juice before. You know it costs \$1.67. Sixty-seven cents is more than 50 cents. Round up the cost to the nearest dollar. Your orange juice will cost about \$2.00. Because you have \$5.00, you can buy the orange juice.



\$1.67
Estimated cost =
\$2.00

Let's pretend you see a yard sale on the way to the store. There is a jump rope that you want to buy for 75 cents. Will you have enough money for the jump rope and the orange juice, too? Estimate the total cost. Seventy-five cents is more than 50 cents. Round up to \$1.00. You can buy the jump rope for about \$1.00. The orange juice costs about \$2.00. The total cost for both will be about \$3.00. You can buy both items, and you will have money left over!



\$0.75
Estimated cost =
\$1.00

orange juice \$2.00
jump rope \$1.00
total \$3.00

Using Math to Shop

Fill in the circle to complete the sentence. Then answer questions 3 and 4.

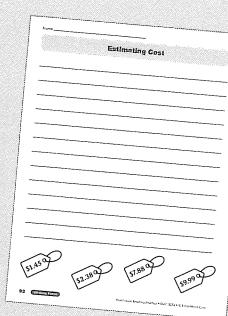
1. To figure out if you can buy the things you want, you can _____ their costs.
Ⓐ estimate
Ⓑ round down
Ⓒ ignore
2. When you round up the cost of the \$1.67 orange juice, it costs _____.
Ⓐ \$1.00
Ⓑ \$1.67
Ⓒ \$2.00
3. Why would you round up the cost of the jump rope to \$1.00?

4. What is the main idea of the text?

Write About the Topic

Use the Writing Form to write about what you read.

Write a letter to a friend to tell how estimating cost works. Explain why it's helpful.



Do I Have Enough Money?

When you shop, you should estimate the cost as you go. This means you should make thoughtful guesses about how much you're spending. Think about each item's price as you choose it. You do not need to remember the exact prices. You can round up or round down. This will help you keep track of the total cost. It helps to make a list of prices as you shop. Write down the rounded numbers.

Remember these two rules for rounding:

Rule 1

If a price ends with **less** than 50 cents, round **down**.

- A loaf of bread costs \$3.19.
- 19 cents is less than 50 cents.
- Round down to \$3.00.

Rule 2

If a price ends with 50 cents or **more**, round **up**.

- A jar of jam costs \$3.98.
- 98 cents is more than 50 cents.
- Round up to \$4.00.

Add the rounded price of each item to find the total cost.

So far, you would have \$3.00 for bread plus \$4.00 for jam.

You know you have spent about \$7.00. A jar of peanut butter costs \$2.78. You can round the price up to \$3.00. This makes your estimated total \$10.00. You only have \$9.00, though.

You don't have enough money for all three items. This means you have to put one item back. Estimating will keep you from trying to buy too many things. You can also try to find items like yours at lower prices. That's smart shopping!



\$3.00



\$4.00

\$3.00