Department of Education

在家學習
4年級

2009年5月

親愛的四年級學生：

我們正處於非同尋常的艱難時期，有些學校已經停課一週時間。我們承認，中斷教學對您和您的家庭來說可能是一項挑戰。即使學校停課了，您仍然可以利用這段時間來繼續學習。

為幫助您走向成功：

1. 請每天閱讀您選擇的書籍、雜誌或報紙
2. 每天學習和使用新辭彙
3. 每天練習寫作。例如：
    a. 就您感興趣的問題給奧巴馬（Obama）總統寫信
    b. 開始寫日記，記錄您一天的生活、您的夢想、您的朋友、您的家庭和您的計劃
    c. 就您在學校喜歡的科目和活動給您的教師寫信或電子郵件
    d. 給親屬或朋友寫信或電子郵件
    e. 撰寫一篇短篇小說、詩歌或為一首歌曲作詞
4. 參加健身活動和/或創造性活動以保持您的身體和心理健康
5. 復習您從學校帶回的筆記和書籍
6. 每天與您的家長或監護人分享您的學習成果

在後面的幾頁中，您將看到旨在幫助您有條不紊地學習和走向成功的逐日指南。其中包含建議的作息時間表、活動和教育性電視節目及網站。請使用該指南並每天填寫概述您每日學習活動的圖表。

要獲取其他網路資源和更新的資料，請瀏覽：http://schools.nyc.gov/learnathome。

Day 1 Schedule

Subject	Minutes Per Day (At Least!)	Assignments	What Did I Learn Today?
Reading and Writing	45	• Learn new vocabulary words from the Vocabulary List • Activity 1: Read a story • Activity 2: Answer questions about the story	•
Math	45	Complete: • Number of the Day • Guess If You Can	•
Science	30	Complete: • Activity 1: Water Cops (English or Spanish)	•
Fitness and Health	30	• Exercise for 30 minutes. Choose from the Activity Calendars at the back of this packet	•
Arts	30	• Choose one or two activities from the Arts Activities at the back of this packet	•
TV Shows and Websites	30	• Choose TV shows and websites to further your learning at home	•

Day 1 English Language Arts

Vocabulary

Learn new vocabulary words to prepare to read "How the Moon Was Kind to Her Mother," an Indian tale.

New word: **greedy**
Definition: Wanting and needing more and more
From the reading: The three sisters ate their fill, especially the Sun and the Wind, who were very **greedy**, and left not so much as a crumb on their plates.

New word: **selfish**
Definition: Caring only for oneself
From the reading: … the Moon who was not greedy and **selfish** as her two sisters, the Sun and the Wind were.

New word: **beloved**
Definition: Much loved; adored
From the reading: Hereafter you shall be no longer **beloved** among men.

New expression: **wax** and **wane**
Definition: To increase (wax) and decrease (wane), again and again
From the reading: "You shall **wane**, but you shall **wax** again."

Activity 1: *Reading*

- Read the following story.

Use this graphic organizer as you read this story.

Story Title:
Characters:

Beginning	Middle	End

Day 1 English Language Arts (continued)

“How the Moon Was Kind to Her Mother.” an Indian Tale

Once upon a time, a long, long while ago, the Sun, the Wind, and the Moon were three sisters, and their mother was a pale, lovely Star that shone, far away, in the dark evening sky.

One day their uncle and aunt, who were no more or less than the Thunder and Lightning, asked the three sisters to have supper with them, and their mother said that they might go. She would wait for them, she said, and would not set until all three returned and told her about their pleasant visit.

So the Sun in her dress of gold, the Wind in a trailing dress that rustled as she passed, and the Moon in a wonderful gown of silver started out for the party with the Thunder and Lightning. Oh, it was a supper to remember! The table was spread with a cloth of rainbow. There were ices like the snow on the mountain tops, and cakes as soft and white as clouds, and fruits from every quarter of the earth. The three sisters ate their fill, especially the Sun and the Wind, who were very greedy, and left not so much as a crumb on their plates. But the Moon was kind and remembered her mother. She hid a part of her supper in her long, white fingers to take home and share with her mother, the Star.

Then the three sisters said good-bye to the Thunder and Lightning and went home. When they reached there, they found their mother, the Star, waiting and shining for them as she had said she would.

"What did you bring me from the supper?" she asked.

The Sun tossed her head with all its yellow hair in disdain as she answered her mother.

"Why should I bring you anything?" she asked. "I went out for my own pleasure and not to think of you."

It was the same with the Wind. She wrapped her flowing robes about her and turned away from her mother.

"I, too, went out for my own entertainment," she said, "and why should I think of you, mother, when you were not with me?"

But it was very different with the Moon who was not greedy and selfish as her two sisters, the Sun and the Wind, were. She turned her pale sweet face toward her mother, the Star, and held out her slender hands.

"See, mother," cried the Moon, "I have brought you part of everything that was on my plate. I ate only half of the feast for I wanted to share it with you."

So the mother brought a gold plate and the food that her unselfish daughter, the Moon, had brought her heaped the plate high. She ate it, and then she turned to her three children, for she had something important to say to them. She spoke first to the Sun.

"You were thoughtless and selfish, my daughter," she said. "You went out and enjoyed yourself with no thought of one who was left alone at home. Hereafter you shall be no longer beloved among men. Your rays shall be so hot and burning that they shall scorch everything they touch. Men shall cover their heads when you appear, and they shall run away from you."

Day 1 English Language Arts (continued)

And that is why, to this day, the Sun is hot and blazing.

Next the mother spoke to the Wind.

"You, too, my daughter, have been unkind and greedy," she said. "You, also, enjoyed yourself with no thought of any one else. You shall blow in the parching heat of your sister, the Sun, and wither and blast all that you touch. No one shall love you any longer, but all men will dislike and avoid you."

And that is why, to this day, the Wind, blowing in hot weather, is so unpleasant.

But, last, the mother spoke to her kind daughter, the Moon.

"You remembered your mother, and were unselfish," she said. "To those who are thoughtful of their mother, great blessings come. For all time your light shall be cool, and calm, and beautiful. You shall wane, but you shall wax again. You shall make the dark night bright, and all men shall call you blessed."

And that is why, to this day, the Moon is so cool, and bright, and beautiful.

Activity 2: *Writing*

- Answer the questions below.

What kind of story is “How the Moon Was Kind to Her Mother?”

_____

_____

What does it try to explain?

_____

_____

_____

What other story does it remind you of?

_____

_____

Day 1 Mathematics

Vocabulary

Learn the new math vocabulary words below. You will use these vocabulary words in the activities today.

- **Equation**: A math statement showing that two things are equal. (Same thing as an equality.)
- **Fraction**: A fraction is a way to count part of something - like part of a pizza instead of the whole thing.
- **Decimal**: Decimal numbers are like fractions because they count PART of something.

Activity 1: *Number of the Day*

- For each number of the day, try to find as many different ways to make the number as you can.

Activity 2: *Guess If You Can*

- Follow the instructions on the attached sheet. Discuss what is meant by trial and error.

If you need Spanish activities for the concept of operations with numbers**,** please follow the steps below.

1. Go to tutorial site: http://destination.nycenet.edu

2. Login with the following user ID and PW:
   - User: studentnyc
   - Password: student

3. Click on the Exploration Icon to access the tutorial

4. Scroll down to Mastering Skills & Concepts: Course II – Spanish

5. Select the skill/concept to review:

Activity 2: 2.1.1 –Sums Less than 100

Notebook Activity

In your notebook, please answer the following question:

- How many different ways could the number of the day be made?

Additional Activity

Do you have more time? If so, please complete the following activity.

- Junk mail (a mini project)

These activities are from:
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect1.pdf
http://www.math.com/parents/articles/funmath.html

1

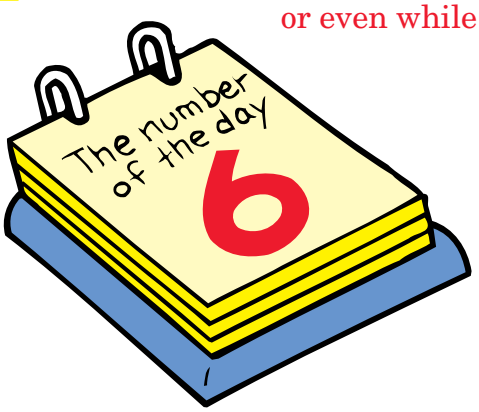
Number of the day

Materials

Paper and pencil (optional)

"The number of the day was 6. Sarita made 1 + 2 + 3. I did 24 ÷ 4. Dad's was 20 – 15 + 1, and Grandma said 4 x 25 – 80 – 14. She had to explain that one!"

You can use this activity to give your children lots of computation practice. Try it just about anywhere—on the bus, in the kitchen, or even while folding laundry.



Before you begin

Choose a number that you will call the "number of the day." The first time you do this activity, choose a number under 15.

1. Find one way to make the number of the day

Ask your children to think up different ways to make the number of the day, using equations.

"Let's all try to come up with different ways to make 11. Here's one way: 8 + 2 + 1 = 11. Can you find a different way?"

2. Collect everyone's equations

- If your children know how to write equations, they list their ideas and take turns reading them.
- When you're in the car, or if younger children need help, appoint one person "record keeper." As people give their ideas, the record keeper writes them down in equation form.
- When everyone's hands are busy making dinner, folding laundry, or pulling weeds, just take turns telling each other how you made the number—no writing is needed.

3. Find more ways to make the number

See how many different ways everyone can find to make the number of the day. You can offer specific challenges to give children practice with something they're doing in school, or just for variety.

For ages 5–7, try using ...

Addition with three numbers
1 + 3 + 7 = 11

Subtraction
13 - 2 = 11

Addition and subtraction
6 + 6 - 1 = 11

Coin values
2 nickels and 1 penny is 11 cents

For ages 7–9, try using ...

Pairs of the same number
2 + 2 + 3 + 3 + 1 = 11

Multiplication
4 x 5 - 9 = 11

Multiples of 5 and 10
25 + 15 - 30 + 1 = 11

The number 100
100 - (3 x 25) - 14 = 11

For ages 9–11, try using ...

A fraction or decimal
22 x .5 = 11

All four operations in one equation
(150 ÷ 10) x 3 - 40 + 6 = 11

Only one numeral
(33 - 3) ÷ 3 + (3 ÷ 3) = 11

The year you were born
1991 - 1900 - 80 = 11

Note: When an equation has parentheses, do the parts in parentheses first. To solve 100 - (3 x 25), first do 3 x 25, then subtract the result from 100.

When you repeat this activity

Family members can take turns choosing the number of the day. If you have young children, keep the number under 15. Otherwise, try a variety of numbers, including large ones (such as 312 and 50,429) and small ones (such as the day of the month, a child's age, or a fraction or decimal less than 1). Small numbers can be just as challenging as large ones.

Every now and then, ask children to explain their thinking: "How did you come up with 27 - 18 = 9? What was going through your head?" Be sure to explain your own thinking sometimes, too.

Talking about thinking is also a good way to handle mistakes. Children may notice and correct a mistake as they talk about how they arrived at the answer. If not, try to use their explanations as a basis for helping. For example, suppose a child says, "7 + 3 = 9 because 7, 8, 9—that's 3." You might respond, "Counting is a good way to do it. What's 1 more than 7? ... OK, 8. What's 2 more?"

Variations

Use a starting number (ages 7–11)
Everyone's equations must start with the same number. For example, suppose the number of the day is 57 and you pick 10 as the starting number. Here are two possible equations:

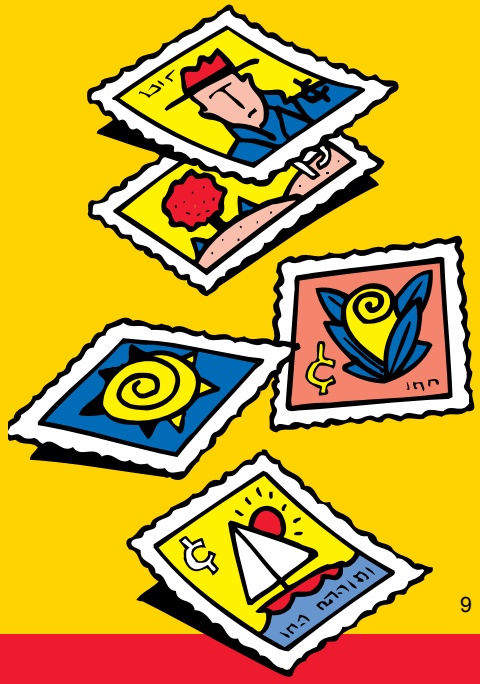
10 + 40 + 7 = 57

10 x 5 + 7 = 57

Stories about the number of the day (ages 5–11)
Make up story problems with the number of the day for the answer. For example, for the number 27:

"When we went for a walk yesterday, Ebony found 12 pretty stones. Bryce found 9, and I found 6. How many stones did we find in all?"

"I bought 4 books of postage stamps. Each one had 10 stamps. I used 13 stamps to mail party invitations. How many stamps did I have left?"



Guess If You Can

What to do

1. Let your child think of a number between a stated range of numbers while you try to guess the number by asking questions. Here is a sample conversation.
   Child: I am thinking of a number between 1 and 100.
   Parent: Is it more than 50?
   Child: No.
   Parent: Is it an even number?
   Child: No.
   Parent: Is it more than 20 but less than 40?
   Child: Yes.
   Parent: Can you reach it by starting at zero and counting by 3's?
   Child: Yes.
   (At this stage, your child could be thinking of 21, 27, 33, or 39.)

2. Figure out the answers to your own questions.
3. After you have guessed your child's number, let your child guess a number from you by asking similar questions.

Parent Pointer	
!	It is important to help children develop an understanding of the characteristics and meanings of numbers.

10 Junk mail (a mini project)

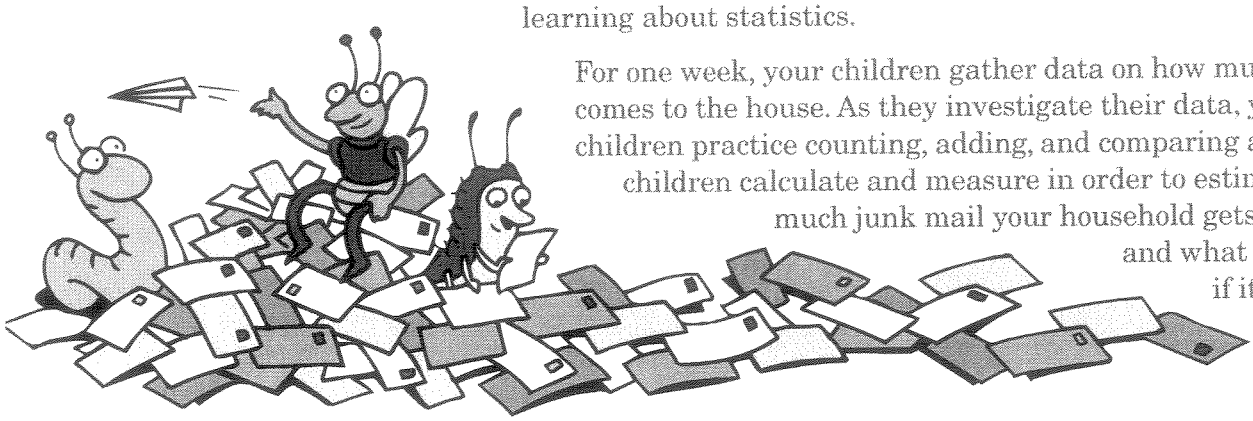
Materials

Your daily mail

"Lots of ads in the mail again—what a waste of paper! I wonder how much of this junk mail we get in a week? How much do we get in a whole year?"

Many children are interested in recycling and saving resources. In this activity, children investigate paper use (and paper waste) while learning about statistics.

For one week, your children gather data on how much junk mail comes to the house. As they investigate their data, younger children practice counting, adding, and comparing amounts. Older children calculate and measure in order to estimate just how much junk mail your household gets in a year—and what would happen if it all piled up!



Before you begin

Set the stage for the project by sorting today's mail and talking about junk mail.

"Let's sort today's mail. We'll put regular mail in one pile, junk mail in another. How much mail do you think we throw out every week without even reading it?"

Encourage your children to make some predictions.

Decide with your children what will count as junk mail: Will you count catalogs? Sweepstakes announcements? Coupons? Other advertisements? You may not be able to make all your decisions in advance, but it's important that everyone generally agrees what to count as "junk."

1. Count and keep track

Every day for a week, your children help sort the mail into two piles: junk mail and regular mail. After counting the number of pieces in each pile, they record the date, how much regular mail, how much junk mail, and the day's total. When they're done, they add the junk mail to the junk mail pile for the week.

Your children can record their data with a chart, graph, tally, or some other way. They can use something they learned in school, or they can come up with their own ways. With young children, it's fine for you to help with recording.

2. Investigate the data

Throughout the week, ask questions about the data your children are collecting. As the week goes on and the totals get larger, younger children may need help finding some of their answers.

"Is there more junk mail or regular mail today? How much more?"

"How much junk mail did we get so far this week? Did we get more junk mail or regular mail so far?"

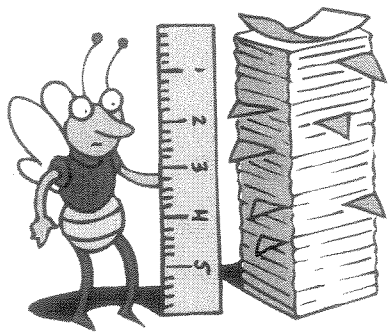
"How many pieces of mail did we get in all today? How many so far this week?"

Additional challenges for ages 7–11

"If we get the same amount of junk mail each week, how much will we have in a month? A year?"

"What fraction of the mail is junk mail? Is it more than half?"

Age range 5–11



"Measure the height of the pile of junk mail at the end of the week. If we let it stack up, how high would our pile of junk mail be in a month? In a year? Would the pile be taller than you are? Up to the ceiling? Taller than the building we live in?"

"If every house on our block (or every apartment in our building) got the same amount of junk mail as we did this week, how high would the pile of junk mail be?"

When you repeat this activity

Save the data you collected this week, then repeat the activity, perhaps at a different time of year. Compare your data.

"Do we get more junk mail during holiday seasons? At the start of the school year? Do we get more on certain days of the week? Why do you think so?"

Variations

More kinds of mail (ages 5–11)
Each day, sort the mail into several categories. You could try one of these ways:

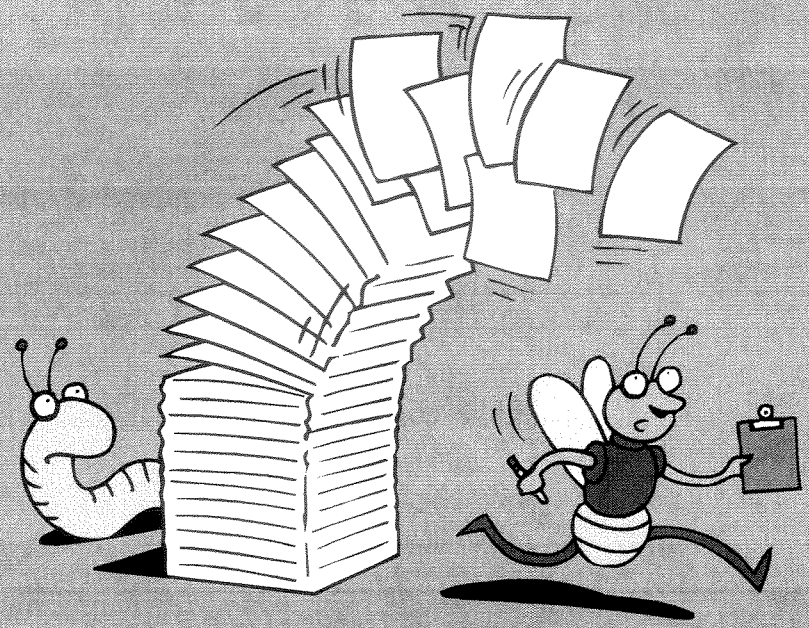
- Name it's addressed to (family member, "occupant" or "resident," former residents of your home)
- Where it's from (country, state, or region of the U.S.)
- Type of mail (bills, letters, magazines, junk mail)

Keep track of how many pieces you get in each category for a week. Then investigate your data.

"Who gets the most mail in the house?"

"About how far away does most of our mail come from—less than 50 miles away? Between 50 and 100? Between 100 and 1000? Over 1000 miles away?"

"Besides junk mail, what's the most common kind of mail we get? What percent of the total mail is this?"



Day 1 Science

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- **commodity** (noun): something that can be bought and sold
- **conserve** (verb): to save or use less
- **drought** (noun): a time when things are very dry and there is no rain
- **mansion** (noun): a very large, fine house

Activity 1: *Water Cops (English or Spanish)*

- Read the article below and answer the questions that follow.
- Para Espanol, prime aquí: http://SCHOOLS.NYC.GOV/Documents/teachandlearn/LearnatHome/ELL/4day1sp.pdf

LOS ANGELES, California (Achieve3000, February 20, 2009). There's a new group of police officers traveling around neighborhoods in Los Angeles, California. They're called "water cops." And they're looking for careless gardeners. The water police make sure that people don't waste water. California is struggling with a drought. Therefore, conserving water is more important than ever.

There are 15 police officers on water duty. They travel around the city's neighborhoods. Leaders believe that lawn care is responsible for nearly three-fourths of the water used by homes in Los Angeles. Therefore, officers look for people who use extra water outside.

Water is a precious commodity everywhere. That's especially true where there is a not enough of it. In June 2008, California Governor Arnold Schwarzenegger declared a statewide drought. Why? The state has had little rain or snow over the past two years.

Los Angeles is the largest city in California. With so many people, the city needs a lot of water. Los Angeles used to get its water from the Los Angeles River. Now, it gets its water mainly from the Colorado River.

Shortly after Governor Schwarzenegger declared the state drought in 2008, leaders passed laws about water use. Those who waste water can be given a warning. Or they can be made to pay fines. These fines show up on water bills. They start at $100. The water officers want to inform people about the importance of saving water.

"They're in fact [teachers] …to the [people]," said H. David Nahai. He is in charge of the water police.

Getting people to follow water conservation rules is still difficult. Many people in Los Angeles want to keep up their beautiful green lawns and blooming gardens. Alonzo Ballengar is an officer with the Department of Water and Power. He says that some people do not want to conserve water. Ballengar says some of the people he accuses of water waste turn out to be hired gardeners. The homeowners want the lawn to be watered each day. Ballenger also came across an unusual case. A woman was draining and refilling her pool every three days.

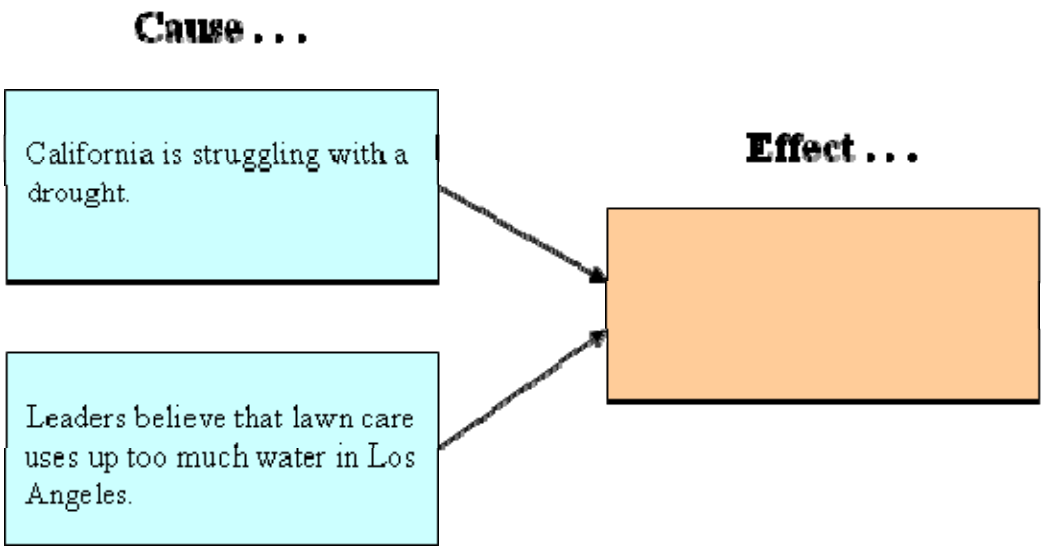
Day 1 Science (continued)

Sometimes, people try to help the water police. One man reported four of his water-wasting neighbors every week. A group of conservationists started policing their own neighborhoods.

Ballengar says that no one is above the law. On a recent afternoon, Ballengar drove to the community where Governor Schwarzenegger lives. Ballengar stopped for a moment in front of the governor's mansion. He looked through the iron gate. He was searching for any sign of water waste in the garden.

Nothing," he said.

Information for this story came from AP.



Question 1:
Based on the article, which fits best in the empty box above?

1. Some Los Angeles police officers are looking for people who waste water.
2. Many people in Los Angeles have started growing beautiful lawns and gardens.
3. Los Angeles gets its water mainly from the Colorado River.
4. Some people in Los Angeles drain and refill their pools.

Question 2:
What is the main idea of this article?

1. Los Angeles police are making sure that people do not waste water.
2. The governor of California declared a statewide drought in 2008.
3. Los Angeles used to get its water from the Los Angeles River.
4. Some homeowners in California water their lawns and gardens every day.

Day 1 Science (continued)

Question 3:
The article states: One man reported four of his water-wasting neighbors every week. A group of conservationists started policing their own neighborhoods.
The author uses these sentences mostly to help the reader know _____.

1. That some people are trying to help the water police
2. Why conservationists want people to pay fines
3. That some neighborhoods waste too much water
4. Why one group plans to use less water at home

Question 4:
The article states:
Getting people to follow water conservation rules is still difficult. Many people in Los Angeles want to keep their beautiful green lawns and blooming gardens. Alonzo Ballengar is an officer with the Department of Water and Power. He says that some people do not want to conserve water.
Which would be the closest synonym for the word follow?

1. Obey
2. Sneak
3. Owe
4. Suggest

Question 5: The news article says all of the following except _____.

1. The governor of California was fined for wasting water.
2. People who waste water can be made to pay a $100 fine.
3. California has had little rain or snow over the past two years.
4. Los Angeles used to get its water from the Los Angeles River.

Question 6: Suppose you were writing a summary of the article. Which of these would be most important to put in the summary?

1. The water police look for people who waste water in Los Angeles.
2. Arnold Schwarzenegger was the governor of California in 2008.
3. Alonzo Ballengar is an officer with the Department of Water and Power.
4. There is an iron gate around the governor's mansion in California.

Day 1 Science (continued)

Question 7: Which two words from the news story have opposite meanings?

1. Conserve and waste
2. Accuse and travel
3. Inform and struggle
4. Search and drain

Question 8: Based on the article, which is most likely to happen?

1. If the drought does not end, Los Angeles might have to add more water cops.
2. The governor will probably decide to get rid of the water conservation laws.
3. If the drought does not end, homeowners might have to drain and refill their pools.
4. The water police will probably not fine people in Los Angeles for wasting water.

Suppose you were a water cop in Los Angeles. Tell how you feel about your job. Why do you feel that way about it? Use facts from the news story to back up your answer. You can use ideas of your own, too. Write your answer below.

Day 2 Schedule

Subject	Minutes Per Day (At Least!)	Assignments	What Did I Learn Today?
Reading and Writing	45	• Learn new vocabulary words from the Vocabulary List • Activity 1: Read a story • Activity 2: Answer questions about the story	•
Math	45	Complete: • What's Fair? • Taking Turns	•
Science	30	Complete: • A New Wave of Power (English or Spanish)	•
Fitness and Health	30	• Exercise for 30 minutes. Choose from the Activity Calendars at the back of this packet	•
Arts	30	• Choose one or two activities from the Arts Activities at the back of this packet	•
TV Shows and Websites	30	• Choose TV shows and websites to further your learning at home	•

Day 2 English Language Arts

Vocabulary

Learn new vocabulary words as you prepare to read "The Widow and Her Three Sons."

New word: **clad**
Definition: Wearing clothes
From the reading: She was somewhat advanced in years and plainly **clad**, wearing a faded shawl and worn hood.

New word: **discharging**
Definition: Letting someone or something go
From the reading: He then made out an order discharging the young man, which the woman took away, thanking him gratefully.

New word: **mortally**
Definition: Causing death
From the reading: ... and found that her son had been mortally wounded in a recent battle, and taken to the hospital.

New word: **reverently**
Definition: With respect
From the reading: She took the order and **reverently** placing her hand upon his head, said …

Activity 1: *Reading*

- Read the following story short story about Abraham Lincoln.

The Widow and Her Three Sons

One day a poor woman approached Mr. Lincoln for an interview. She was somewhat advanced in years and plainly clad, wearing a faded shawl and worn hood.

"Well, my good woman," said Mr. Lincoln, "what can I do for you this morning?"

"Mr. President," answered she, "my husband and three sons all went into the army. My husband was killed in battle. I get along very badly since then living all alone, and I thought that I would come and ask you to release to me my eldest son."

Mr. Lincoln looked in her face for a moment, and then replied kindly, "Certainly! Certainly! If you have given us ALL, and your property has been taken away, you are justly entitled to one of your boys." He then made out an order discharging the young man, which the woman took away, thanking him gratefully. She went to the front herself with the President's order, and found that her son had been mortally wounded in a recent battle, and taken to the hospital. She hastened to the hospital. But she was too late, the boy died, and she saw him laid in a soldier's grave. She then returned to the President with his order, on the back of which the attendant surgeon had stated the sad facts concerning the young man it was intended to discharge. Mr. Lincoln was much moved by her story, and said: "I know what you wish me to do now, and I shall do it without your asking. I shall release to you your second son."

Taking up his pen he began to write the order, while the grief-stricken woman stood at his side and passed her hand softly over his head, and stroked his rough hair as she would have stroked her boy's. When he had finished he handed her the paper, saying tenderly, his eyes full of tears, "Now you have one of the two left,

Day 2 English Language Arts (continued)

and I have one, that is no more than right."

She took the order and reverently placing her hand upon his head, said, "The Lord bless you, Mr. President. May you live a thousand years, and may you always be the head of this great nation."

Read the story a second time and complete the following graphic organizer as you read:

***Who* are the people involved?**	***What* happens?**	***Where* does the story take place?**
***When* does it take place?**	***Why* does the woman ask Lincoln to discharge her son?**	***How* does the woman respond to Lincoln's actions?**

Activity 2: *Writing*

What does this story show about Abraham Lincoln? What kind of man was he?

_____

_____

_____

_____

What kind of leader was he?

_____

_____

List all the new words in the story.

_____

_____

_____

Day 2 English Language Arts (continued)

Below, write a newspaper article as if you are a reporter telling about this incident when it happened.

Day 2 Mathematics

Vocabulary

Learn the new math vocabulary words below. You will use these vocabulary words in the activities today.

- **Division**: A way to find out how many times one number is contained in another.
- **Remainder**: The remainder is what might be "left over" when you are doing a division problem.
- **Multiple**: A multiple is a number that is the product of a given number and some other number.

Activity 1: *What's Fair?*

- Follow the instructions on the attached sheet. Discuss what is meant by "fair share".

Activity 2: *Taking Turns*

- Follow the instructions on the attached sheet. What are some times when people need to take turns?

If you need Spanish activities for the concept of operations with numbers**,** please follow the steps below.

1. Go to tutorial site: http://destination.nycenet.edu

2. Login with the following user ID and PW:
   - User: studentnyc
   - Password: student

3. Click on the Exploration Icon to access the tutorial

4. Scroll down to Mastering Skills & Concepts: Course II-Spanish

5. Select the skill/concept to review:

Activity 2: 2.1.2 – Estimating and Finding Sums less than 1,000

Notebook Activity

In your notebook, please answer the following question:

- Why would it be important to share fairly and to take turns?

Additional Activity

Do you have more time? If so, please complete the following activity.

- Squash that Box

These activities are from:
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect3.pdf
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect4.pdf

3

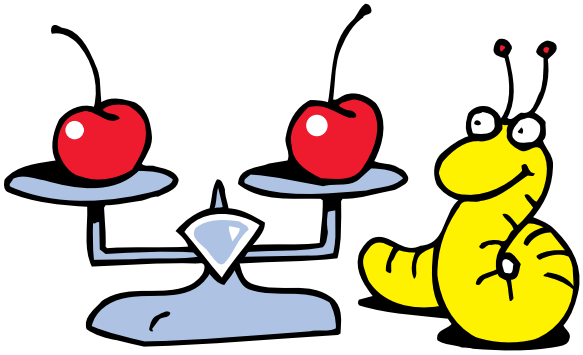
What's fair?

Materials

Between about 5 and 50 "countable" foods, like pancakes, crackers, or strawberries

"Cherries—yum! I want the exact same amount as Tulani!"

When it comes to favorite foods, everyone wants a "fair share." When your children ask you to "make it fair," ask them to figure out how to divide up the food so everyone gets the same amount. This involves using division, as well as counting, adding, subtracting, and multiplying—and sometimes even working with fractions.



1. Count to find how much food

Put the food to be shared on a plate so everyone can see it. If there are more than a few items, ask your children to make an estimate first:

"About how many cherries do you think we have? Let's count and see."

If necessary, help young children with the counting as the numbers get large.

2. Divide the total into equal parts

Remind your children of the number of items and the number of people to share them.

"So, there are 17 cherries and 3 of us. How many cherries should we give each person?"

For ages 5–7

Young children learn about division by working with actual things. Try asking them to deal out the food and count how many each person gets.

For ages 7–11

If your children need help, work with them in one of these ways.

Add up. *"What if we gave everyone 2 cherries? How many would that be? … What if we gave everyone 3 cherries? … 5 cherries? How many would be left over?"*

Subtract. *"If everyone gets 1 cherry, how many are left? … What if everyone gets 2 cherries? … 5 cherries? Can we give out 6 cherries to everyone?"*

Use multiplication or division facts. *"What if there were 15 cherries, how could you divide them into 3 equal shares? What's 15 ÷ 3? … Yes, everyone would get 5. That takes care of 15 of the cherries. How many are left over?"*

3. Decide what to do with the extras (optional)

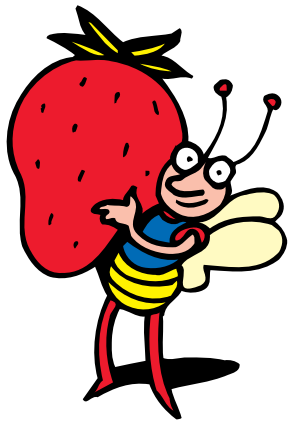
If there are any extras, discuss what to do with them: leave them for someone else? Break them into pieces and share the pieces?

If it makes sense to divide the extras into equal parts, you can do this as a way to bring up fractions. No one wants to divide that extra cherry into three equal parts, but you could easily divide other kinds of foods.

"How can we divide these two brownies up among the three of us?"

"There are seven pancakes left. How can we divide them up among the five of us?"

If your children aren't sure how to start, suggest dividing each extra item into equal parts for everyone. For example, to share two brownies among three people, cut each brownie into three equal parts, or thirds. How many of these thirds are there? How can they be shared?



4. Distribute the food

(This step won't be necessary if children dealt out the food as part of step 2.)

Ask your children to count out the actual items for each person. This is an ideal job for a young child if the numbers are small. If it's necessary, help them cut or break up the extras into equal parts. Before everyone eats, make sure there's agreement that the distribution of food is fair. If there's any disagreement, talk with them about what they think would be fair and why.

When you repeat this activity

Try different numbers of food items, and different numbers of people sharing. For more challenge, use larger amounts, and amounts that give you "extras." Encourage children to explain how they got their answers, and to check their work by finding the solution in a different way.

Variations

Working together (ages 5–11)

If there are two or more children, you can divide up this activity so each child is doing a different part: counting the items to be shared; checking the count; figuring out how many each person gets; and then counting out the equal shares.

Equal shares for some (ages 5-11)

Sometimes, people don't want the exact same amount. A younger child might not eat quite as much, or someone might not be very hungry.

Tell your children how much one or two people get, and ask them to figure out how to share the rest fairly among everyone else.

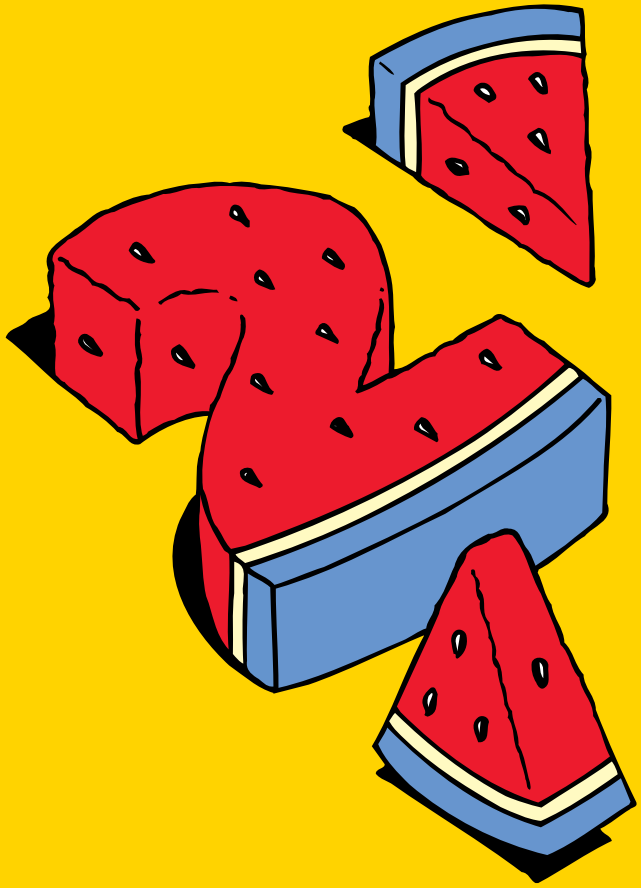
"There are 12 pancakes and 5 of us. Malia eats just one and Dad only wants two. How many will each of the rest of us get?"

Challenge older children with clues about uneven sharing.

"We have 10 crackers. Let's share them so that I get 2 less than you do. How many does each of us get?"

"There are 6 strawberries left. What if I get half as many as you do? How many will we each get?"

These problems can be difficult. Try one when there are just a small number of things to share.



4

Taking turns

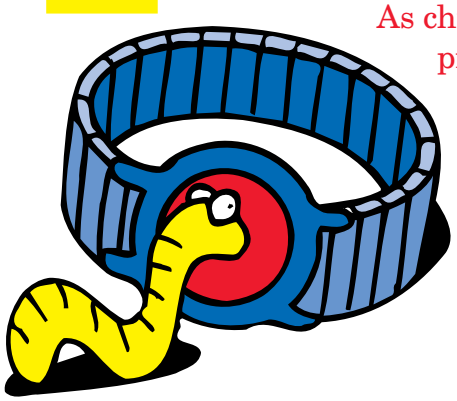
Materials

Clock or watch that displays minutes

"When will it be my turn to see that magazine? You said we could each take 10-minute turns!"

Taking turns is a big part of family life. Even if there's only one child in the family, adults sometimes need to take turns, too.

As children figure out when their turn begins, they get lots of practice with addition and time sense. They also have something to do when it's not their turn. You can do this activity just about anywhere—in the kitchen, waiting at the doctor's office, or on the bus.



Before you begin

Decide how long turns will be. Here are some ideas for children of different ages.

For ages 5–7

- take 1- to 3-minute turns, or
- take 10-minute turns and start turns on a multiple of 10 minutes (10:10 or 7:30).

For ages 7–9

- take turns of any number up to 10 minutes, or
- take turns of any multiple of 5 minutes (15, 20, 35).

For ages 9–11

- take turns that are not multiples of 5 or 10 minutes. Try turns of 13 minutes, 19 minutes, or 37 minutes.

1. Talk through the turn taking

Make sure your children know

- how long each turn is,
- what order they'll take turns in, and
- what time turn taking begins

"You all want to use stencils to make your pictures, but we can only find one stencil. So, each of you gets a 5-minute turn with it. Let's go around the table—Malique, you start. Tania's next, then Camille. Tania, keep an eye on the clock. It's 2:19 now—let us know when it's time for your turn!"

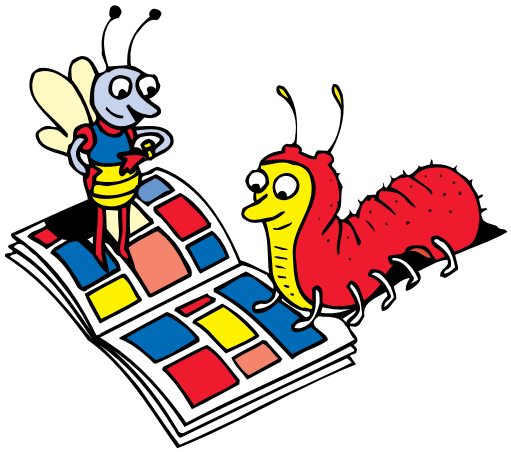
2. Figure out when the next turn begins

If your children need help, work with them in one of these ways:

Count up the minutes. One minute after 2:19 is 2:20, 2 minutes after is 2:21, … 5 minutes after is 2:24.

Round to a "familiar" time, then adjust. The last turn began at 2:19, so you can round up to 2:20. The next turn would begin 5 minutes later, at 2:25. Since the turn really began 1 minute earlier—at 2:19, the next turn begins 1 minute earlier, too—at 2:24.

Talk through your own solution. Children who aren't sure what to do, but know their turns are approaching fast, may not be eager to work out the math themselves. Explain how you know when the next turn begins. Even if your children can't



understand everything, they'll appreciate that you're doing math to find out something important to them. Next time, try a turn length that you think will be easier. You can even make it "too easy," to give a feeling of success so children will be ready to try more challenge another time.

When you repeat this activity

Vary the turn length and starting time. Try turns of a few minutes and turns of a half hour or more. Try starting the first turn on the hour, at half-past, and at any old time. As you learn what your children can figure out easily, choose times that offer just a little challenge.

Variations

How long until our turn? (ages 7–11)

Waiting in line can be unpredictable. When we're in a check-out line, at the bank, or at the post office, we don't know how long each person's turn with the cashier or clerk will be. Try this to pass the time when you're waiting.

If you have a watch, time the turns of three or four people ahead of you and find an average. Or, just estimate the length of an average turn. Then, use this average to predict how long until your turn.

Exploring patterns (ages 5–11)

Write down when each person's turn will start, continuing for at least 12 or 15 turns. (It's OK if no one really gets that many turns.) Then, look for patterns in the numbers.

For example, suppose the starting time is 4:12 and you have 5-minute turns.

4:12	4:37	5:02
4:17	4:42	5:07
4:22	4:47	5:12
4:27	4:52	5:17
4:32	4:57	

Some patterns: the "ones" digits in the minutes are all 2 and 7; the "tens" digits appear twice and then increase by 1.

Here's another example: the starting time is 1:00, with 3-minute turns.

1:00	1:15	1:30
1:03	1:18	1:33
1:06	1:21	1:36
1:09	1:24	1:39
1:12	1:27	

Some patterns: the minutes are multiples of 3; they alternate even and odd; the "ones" digit repeats every 10th number.

Squash That Box

Ever notice what happens when you flatten cereal boxes, tin cans, or other 3-dimensional shapes for recycling? Or do you ever wonder how they design and make all those interesting containers you find in the department store? Mathematicians call the flat, unfolded designs of 3-dimensional shapes "nets."

What you'll need

Small cardboard boxes, aluminum cans, and cardboard tubes from toilet paper or paper towels

What to do

1. Explain to your child that when we recycle materials, we need to flatten them. Ask him or her why (to save space). Ask your child to imagine what shapes will be created when you flatten the boxes or cans. Some people crush cans, which is not the same as flattening. When you take apart a cylinder, you have two circles for the ends and the flat cylinder makes a rectangle. Cut a cardboard tube lengthwise. What shape do you see (a rectangle)? What will a cereal box look like if you carefully unfold it and cut along the edges?
2. Unfold a cardboard box, without showing your child the original box. Ask your child to imagine what the original box looked like. What shape will it be when it is put back together? How will the ends look?
3. Have your child trace all the faces of a box or other 3-dimensional shapes by laying every side and top and bottom on the paper to be traced. Ask the child the names of the drawn 2-dimensional shapes.
4. Have your child study a box. Then see if your child can draw a net (the unfolded version) of the box. Unfold the box to see how closely the drawn net corresponds to the actual net. What would the net of a pyramid look like? What would the net of a cube look like?

Here is the net of a cube.

Here is the net of a cylinder.

Parent Pointer
! Recognizing 2-dimensional shapes in 3-dimensional objects and visualizing shapes are essential skills in fields as varied as architecture, manufacturing, medicine, and design.

Day 2 Science

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- **dam** (noun): a wall that holds back a river's water; it can be used to make power
- **generator** (noun): a machine that changes one kind of energy or power into another
- **hydroelectric** (adjective): having to do with the use of water to create electricity
- **technology** (noun): goods that use the newest science
- **turbine** (noun): a machine that is powered by blades that turn, usually by the force of air or water

Activity 1: *A New Wave of Power (English or Spanish)*

- Read the article below and answer the questions that follow.
- Para Espanol, prime aquí: http://SCHOOLS.NYC.GOV/Documents/teachandlearn/LearnatHome/ELL/4day2sp.pdf

HAMILTON, Ohio (Achieve3000, January 19, 2009). Decades ago, automaker Henry Ford turned to hydroelectric plants. He used them to power his factories. Those plants are no longer in use. The technology behind them, however, is still very much in force. In fact, demands to harness energy in different ways are mounting. Therefore, the push to create electricity from moving water is picking up steam across the country.

Developers are starting bold programs. These programs use America's biggest rivers for power. Hydroelectric plants are expected to light up the Ohio River Valley. Cities and companies have hopes of harnessing the energy of the Mississippi River. They may use a few large turbines. Or, they may use thousands of tiny ones.

Hydroelectric power is nothing new in the U.S. Water is already the leading way of creating energy. It's used to create electric power. And it can be used again and again. Hydroelectric plants work simply: Moving water spins the blades of a turbine. The turbine turns a generator. A waterfall of less than 30 feet is enough to supply the needed energy.

Hamilton, Ohio, is looking to add another hydropower plant along the Ohio River. This will be the river's third. The program will take more than 40 years. It will cost $450 million. City leaders aren't bothered by the price tag, however. They are instead praising hydropower. It can save the townspeople a lot of money. The new plant will give the power company's 30,000 customers the lowest electricity prices in Ohio.

Linda Church Ciocci is a hydropower expert. She said the cost is in building the plant. Once it's built, she said, "that's it."

Power companies want more hydropower plants. They want to put them along the country's waterways. A Massachusetts company is studying the idea of planting thousands of small electric turbines in the bed of the Mississippi River. They would do this in 55 spots. These spots will start in St. Louis, Missouri. They will stretch to the Gulf of Mexico. Together these turbines could create enough power to supply 1.5 million homes.

Day 2 Science (continued)

The plan uses a form of power called hydrokinetics. It is unlike hydroelectric power. Hydroelectric power uses dams to create a flow of water and spin a turbine. Hydrokinetics does not need to use dams. It uses natural water currents to create electricity. The river's flow spins the underwater turbines.

"It's elegant. It's simple," said Dan Irvin. Irvin is the manager of the Massachusetts company.

The government says the plan may continue. However, some are urging the government to slow down until more is known about hydrokinetics.

Irvin says talking over the questions is healthy, even necessary.

A need to learn more about hydrokinetics is behind those talks. The use of dams in hydroelectric power is at the center of others.

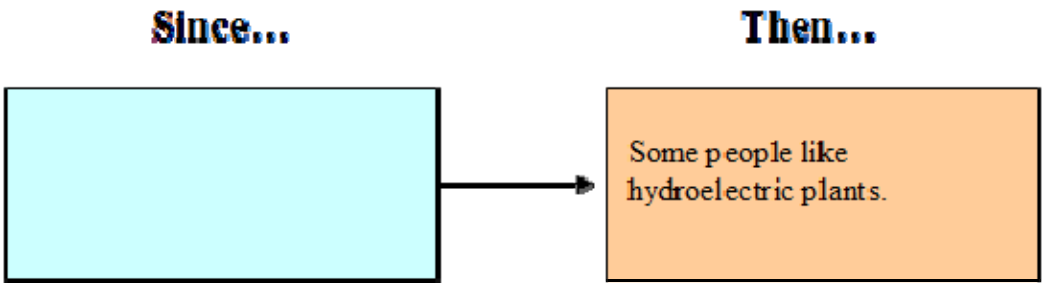
Some people are in favor of hydroelectricity. They say that it is a non-polluting type of energy. It can be used again and again. It does not cost a lot to run, they say. Others, however, complain that hydroelectric plants use dams. These dams can harm fish. They can block them as they swim to oceans. Dams can also cause rivers to dry up.

Many groups are nevertheless moving forward with plans to set up hydroelectric turbines. In Quincy, Illinois, the city council has a $200 million plan to use hydroelectric power. It will supply power to the city's 16,000 homes. The program is a big undertaking for Quincy.

"Normally, you'd never see [an area] this size take on such a [huge program]," said Quincy mayor John Spring. "But I think it's the future," he said. "It's the right thing to do."

Information for this story came from AP.

Day 2 Science (continued)



Question 1: Which fits best in the empty space above?

1. Uses natural water currents to spin the underwater turbines
2. Needs turbines that are wider than three feet to produce energy
3. Uses turbines to block fish from entering water currents
4. Needs a waterfall of at least 30 feet to spin turbines

Question 2: According to the article, why do some people support hydroelectricity?

1. They say that it is a non-polluting, low-cost type of energy.
2. They like that it uses dams instead of natural water currents.

3. They say that it can keep important rivers from drying up.
4. They like that it uses many small turbines instead of just one.

Question 3: The article states: Cities and companies have hopes of harnessing the energy of the Mississippi River. Look at the sentences above and think about the article. Which would be the closest synonym for the word harnessing?

1. Capturing
2. Choking
3. Completing
4. Curbing

Question 4: Which of these is an opinion?

1. Hydroelectric plants should not be built until more study is done.
2. Hydroelectric plants use dams that block fish from swimming to sea.
3. Hydroelectric plants use water to spin turbines that create electricity.
4. Hydroelectric plants cost less to run that other kinds of power plants.

Question 5: Suppose you were writing a summary of the article. Which of these would be most important to put in the summary?

1. Many groups are moving forward with plans to set up hydroelectric plants.
2. Dan Irvin is the manager of a Massachusetts power company.
3. Part of the Mississippi River runs from St. Louis to the Gulf of Mexico.
4. Automaker Henry Ford needed electricity to run his factories.

Day 2 Science (continued)

Question 6: The article states: However, some are urging the government to slow down until more is known about hydrokinetics. Which would be the closest synonym for the word urging?

1. Asking
2. Attacking
3. Arguing
4. Allowing

Question 7: The article states: Hydroelectric plants work simply: Moving water spins the blades of a turbine. The turbine turns a generator. A waterfall of less than 30 feet is enough to supply the needed energy. The author uses these sentences mostly to help the reader to understand _____.

1. How hydroelectric plants use water to create electricity
2. Why a waterfall of less than 30 feet is needed
3. How much water is needed to spin the blades of a turbine
4. Why turbines are needed to generate electricity

Question 8: Which question is not answered by the article?

1. How much does it cost to run the average hydroelectric plant?
2. What is the leading way of creating energy in the U.S.?
3. How many homes would get energy from the small turbines?
4. Why do some people complain about hydroelectric plants?

Let's say a reader wants to better understand hydroelectric power. What information could be added to the news story to help this person? Use ideas from the news story in your answer. You can use ideas of your own, too. Write your answer below.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Day 3 Schedule

Subject	Minutes Per Day (At Least!)	Assignments	What Did I Learn Today?
Reading and Writing	45	• Learn new vocabulary words from the Vocabulary List • Activity 1: Read a poem • Activity 2: Answer questions about the poem	•
Math	45	Complete • How Much Longer? • When Should We Leave?	•
Science	30	Complete: • A Race to Get Water (English or Spanish)	•
Fitness and Health	30	• Exercise for 30 minutes. Choose from the Activity Calendars at the back of this packet	•
Arts	30	• Choose one or two activities from the Arts Activities at the back of this packet	•
TV Shows and Websites	30	• Choose TV shows and websites to further your learning at home	•

Day 3 English Language Arts

Vocabulary

Learn new vocabulary words as you prepare to read "I, Too, Sing America" by Langston Hughes.

New word: **company**
Definition: A group of people invited to someone's home
From the reading: They send me to eat in the kitchen when company comes …

New phrase: **dare say**
Definition: Would think to say to someone
From the reading: Nobody'll dare say to me …

New word: **ashamed**
Definition: Feel guilty
From the reading: They'll … be ashamed …

Activity 1: *Reading*

- Read the following poem by Langston Hughes

I, Too, Sing America by Langston Hughes

I, too, sing America.

I am the darker brother.
They send me to eat in the kitchen
When company comes,
But I laugh,
And eat well,
And grow strong.

Tomorrow,
I'll be at the table
When company comes.
Nobody'll dare
Say to me,
"Eat in the kitchen,"
Then.

Besides,
They'll see how beautiful I am
And be ashamed--

I, too, am America.

Day 3 English Language Arts (continued)

Activity 2: *Writing*

- In your own words, tell what the writer is trying to say to the reader.

Is there anything in the poem that surprises you? Anything that makes you wonder? Write your questions and comments here.

How have things changed since Langston Hughes wrote this poem in 1945?

Day 3 Mathematics

Vocabulary

Learn the new math vocabulary words below. You will use these vocabulary words in the activities today.

- **Calculate**: To find the value of something, usually by using arithmetic, like adding or multiplying.
- **Rounding**: To express something in a way that is about the same, but in a form that is easier to use.
- **Solution**: The answer to a problem.

Activity 1: *How Much Longer?*

- Follow the instructions on the attached sheet. Why would this question always have different answers?

Activity 2: *When Should We Leave?*

- Follow the instructions on the attached sheet. Why would it be important to calculate when to leave?

If you need Spanish activities for the concept of operations with numbers**,** please follow the steps below.

1. Go to tutorial site: http://destination.nycenet.edu

2. Login with the following user ID and PW:
   - User: studentnyc
   - Password: student

3. Click on the Exploration Icon to access the tutorial

4. Scroll down to Mastering Skills & Concepts: Course II-Spanish

5. Select the skill/concept to review:

Activity 3: 2.1.3 – Differences within 100

Notebook Activity

In your notebook, please answer the following question:

- Why is it sometimes easier to round off to the nearest quarter- or half-hour?

Additional Activity

Do you have more time? If so, please complete the following activity.

- What are the Coins?

These activities are from:
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect5.pdf
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect6.pdf

5

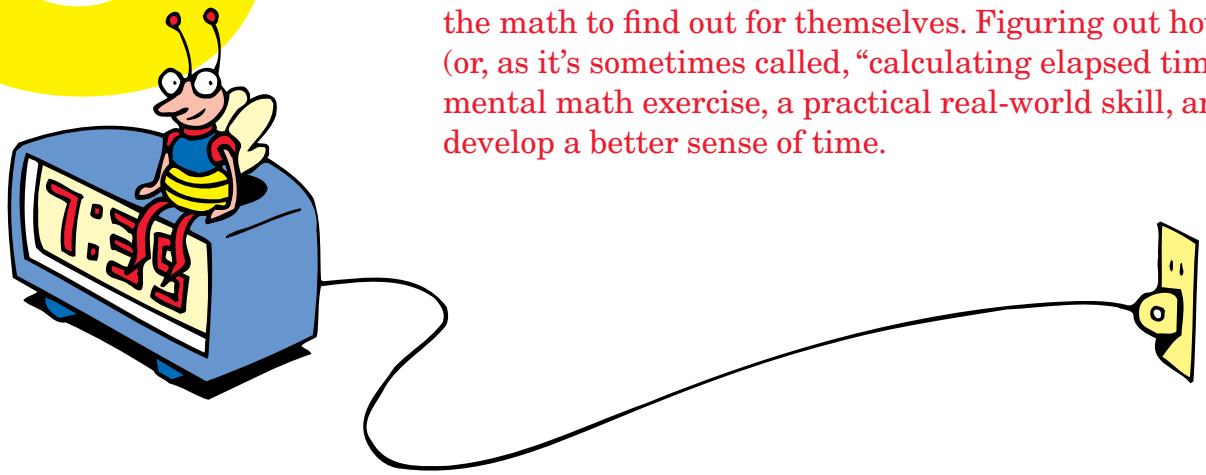
How much longer?

Materials

Clock or watch that displays minutes

"How much longer until the soccer game begins? … How long until we eat? … How much longer before the movie starts?"

Next time your children ask you "How much longer?" ask them to do the math to find out for themselves. Figuring out how much longer (or, as it's sometimes called, "calculating elapsed time") is a great mental math exercise, a practical real-world skill, and a way to develop a better sense of time.



1. Talk through the problem

Make sure your children know what time it is now and the time of the event they're waiting for.

Child: *"How long until we eat?"*

Parent: *"It's 5:18. Dinner's at 6. How many minutes until 6?"*

For ages 5–7, simplify the problem by rounding times to the nearest half hour (5:30 in this example), quarter hour (5:15), or 10 minutes (5:20).

2. Figure out how much longer

If your children need help, work with them to solve the problem in one of these ways:

Break the problem into parts. For instance, from 5:18 to 5:20 is 2 minutes, then it's 10 more minutes to 5:30, and another 30 to 6:00—42 minutes in all.

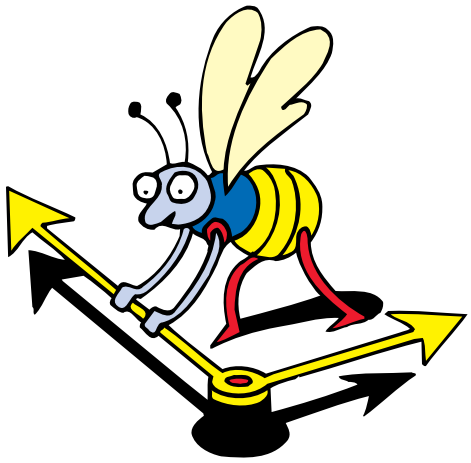
Round to a time that's easier to work with and then adjust. It's 45 minutes from 5:15 to 6:00, so it's 3 less than that—42 minutes—from 5:18 to 6:00.

Count up by ten-minute intervals. From 5:18 to 5:28 is 10 minutes. From 5:18 to 5:38 is 20 minutes, to 5:48 is 30, to 5:58 is 40, plus 2 minutes takes us to 6:00. So it's 42 minutes in all.

3. Explain solutions

If your children solved the problem without help, ask how they got their answers.

If you notice any incorrect calculations, encourage your children to explain their thinking further. They may fix their mistakes as they talk about how they got the answer. If they don't, try to help them correct their solution methods, rather than showing a new way to solve the problem.



4. What could you do in the remaining time? (optional)

To help develop a "real-life" understanding of time, ask about what could be done in the time that's left.

"So, you have about 40 minutes left until dinner. Is that enough time to clean your desk? Your whole room? Your whole room and still have some time left to play?"

When you repeat this activity

Try this when "How much longer?" is a few minutes, close to an hour, or several hours. Ask your children to explain their thinking from time to time—both when they make mistakes and when they arrive at the right answer. Otherwise, they will come to think that "How did you get your answer?" really means, "You're wrong."

Variations

Predict how much longer (ages 5–11)

Sometimes we don't have an answer for "How much longer?" We're not sure when the waitress will take our order, or when the food will arrive. We don't know how long we'll be in the check-out line, or when we'll get home if we're stuck in traffic. In situations like these, ask everyone to predict how much longer, and to explain why they think their predictions are reasonable. Write down (or remember) your predictions, and assign someone to keep track of the time. Which prediction comes closest?

For more challenge, after children make their predictions, suggest they calculate what time that will be.

"It's 3:32, and you guess it will take 45 minutes to get home. What time will it be then?"

When the wait is prolonged, ask if anyone wants to revise their predictions.

"We predicted we'd be through the check-out line in 5 minutes, but 3 minutes have passed and the person ahead of us hasn't unloaded everything from her cart yet. Do you still think we'll be through in 5 minutes, or do you want to change your predictions?"

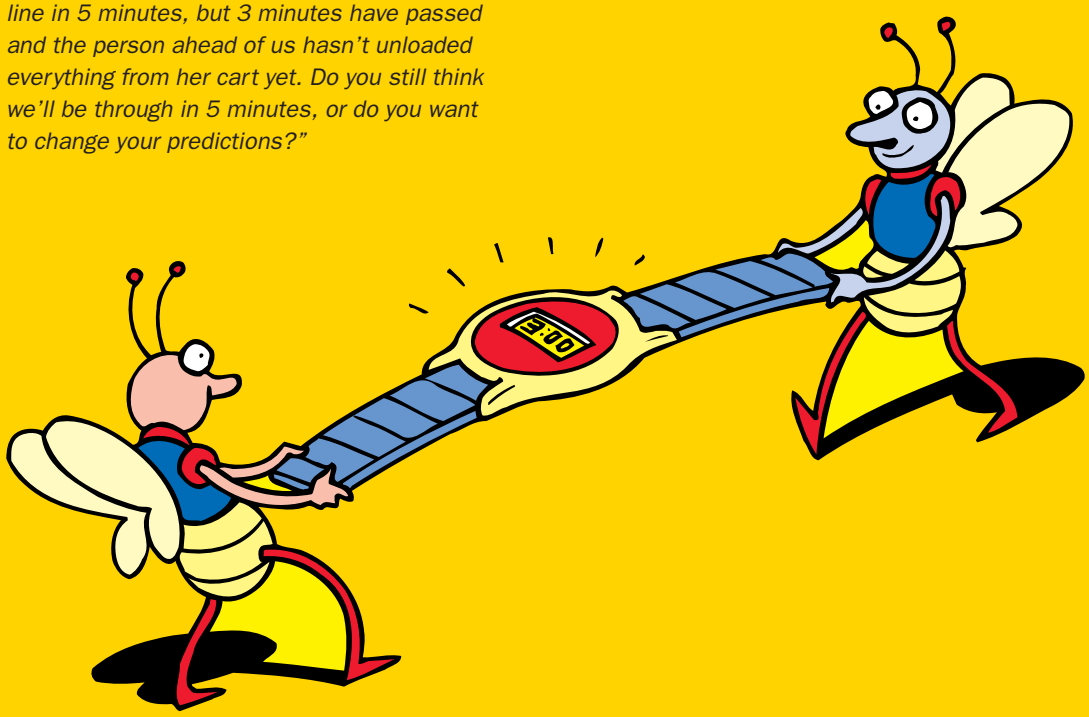
When it seems like forever (ages 5–11)

When there's an exciting event coming up soon, ask your children to find out "how much longer" in weeks, days, or hours. Younger children can use a calendar to count how many days (or weeks). Older children can calculate how many hours until the event, and then explore questions like these:

What is the halfway point? *"When will it be halfway between now and your birthday? What will you be doing then?"*

How many minutes? *"So, you figured out that it's 63 hours until your school play. Do you think that's more than 1000 minutes from now? More than 10,000? How can you find out?"*

How long ago? *"The big soccer game is in 32 hours, and it seems like you have to wait forever! What were you doing 32 hours ago? Does it seem like that long ago?"*



6

When should we leave?

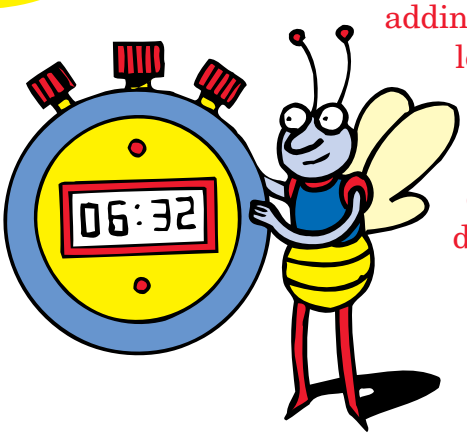
Materials

- Clock or watch that displays minutes
- Pencil and paper (optional)

"Oh no, it's almost 12:35! We'll never get to the soccer field by 1:00!"

Some days it seems that everyone is rushing off somewhere—to school, to work, to appointments. As we plan the day, we need to decide when to leave in order to get places on time—even if we don't always quite make it. Deciding when to leave requires lots of math: adding and subtracting times, using time sense to estimate how long it takes to go places, and using timetables.

In this activity, as children figure out when to leave, they learn about the role math plays in scheduling the day. Finding when to leave also gives them something to do while they're waiting around to go!



1. Talk through the trip

Make sure your children know

- the time you need to arrive at your destination.
- the parts of the trip—will you walk directly there? Walk to the bus stop, wait, ride the bus, and then walk the rest of the way?
- how long each part of the trip takes. It's OK to round times to the nearest 10 or 15 minutes.

"We're driving Ana to school. It's a 15-minute ride to Ana's house, and then it takes about 20 minutes to get to school. We need to be there for the 8:10 bell. When should we leave?"

For ages 5–7

Ask about trips with just one part.

"It takes half an hour to walk to Grandma's house. We need to be there at 3:00. When should we leave?"

Or, combine parts of the trip, so children have fewer things to keep track of.

"It will take about 35 minutes to get to school. When should we leave?"

2. Figure out when to leave

If your children get stuck, work with them in one of these ways:

Calculate how long the trip is, then subtract the travel time from your intended arrival time. The trip takes 15 + 20, or 35 minutes. Thirty-five minutes before 8:10 is 7:35.

Work backwards, one step at a time. To get to school at 8:10, we need to leave Ana's house 20 minutes earlier. That's 7:50. So, we should leave home 15 minutes before then—at 7:35.

Pick a time when you might start, and then adjust. Some children find it easier to work with a specific starting time.

"What if we left at 7:45—when would we get there? … Should we leave earlier or later than that? … How much earlier (or later)?"

Keep the focus on the goal. Sometimes when we get bogged down in calculations, we lose sight of what we're trying to figure out. Remind children of the basic question as needed.

"So you figured out that it will take us about 35 minutes in all. When should we leave so that we get there at 8:10?"

Take off the pressure if it's getting to be time to go. You can spend a bit of travel time explaining how you figured out when to leave. Next time, ask your children to figure out, "When should we leave?" when the trip is simpler.

When you repeat this activity

Try this with a variety of trips—trips under half an hour, and trips of 2 hours or longer; trips involving several stops, bus changes, or errands; and trips involving different methods of transportation. For more challenge, involve your children in planning ahead for possible traffic or other delays.

"We have to take two buses. Each ride could take anywhere from 15 to 30 minutes, depending on traffic, and we could wait up to 10 minutes when we change buses. How much time should we allow, in case there's a lot of traffic and a long wait? What's the earliest we could get there? If we're early, will there be enough time to get ice cream on the way?"

Variations

Use timetables (ages 7–11)

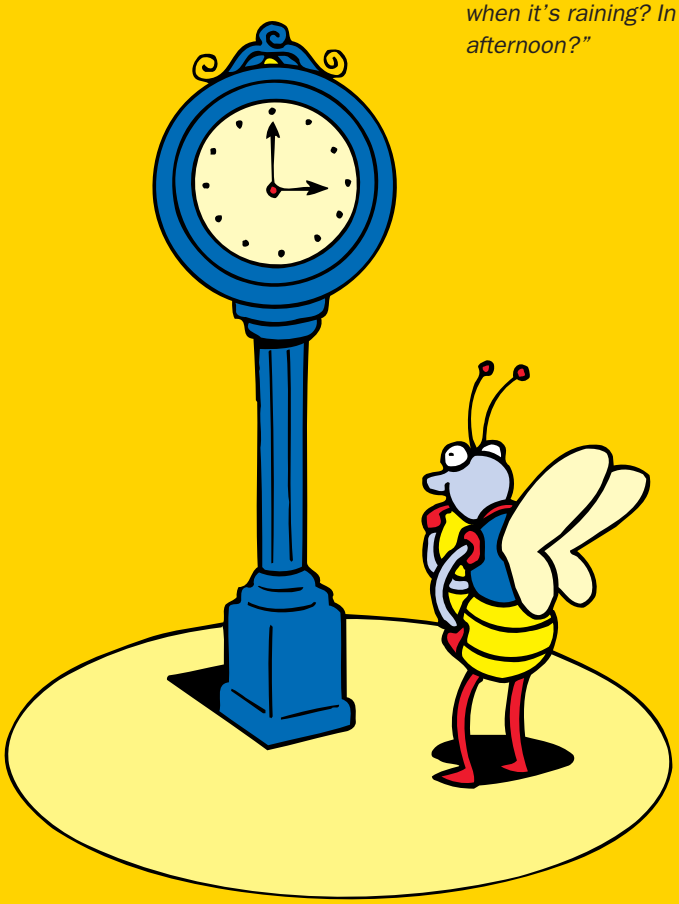
Sometimes, figuring out when to leave involves choosing which bus (or train, or ferry) to take. Work with your child to use a timetable to plan your trip.

"We have to be at the doctor's at 4:00. The bus stops at North Square just around the corner from the doctor's office. Let's look at the schedule to find a bus that gets there by 3:50. OK, the 3:02 from the Oak Street stop should get us in by 3:43. What time do we need to leave home to catch the 3:02 bus at Oak Street?"

How long did it take? (ages 7–11)

Find a trip that your children take on a regular basis—perhaps a drive to the grocery store, a bus to the library, or a trip by foot and subway to Grandma's house. Each time they take this same trip (for at least a few trips), ask them to use a watch or timer to find how long it takes. Provide a notebook or special paper where they can record how long the trip took, along with the date and day of the week, the time of day, the weather, and any circumstances they think affected the length of the trip (such as delays for road construction). They can use these data to help make decisions about when to leave on future trips.

"How much time should we allow for the trip when it's raining? In rush hour? On Sunday afternoon?"



What Are the Coins?

What you'll need

Some coins

What to do

Ask your child the following questions:

1. I have three coins in my pocket. They are worth 7 cents. What do I have? (a nickel and 2 pennies)
2. I have three coins in my pocket. They are worth 16 cents. What do I have? (a dime, a nickel, a penny)
3. I have three coins in my pocket. They are worth 11 cents. What do I have? (2 nickels and 1 penny)
4. I have three coins in my pockets. They are worth 30 cents. What do I have? (3 dimes)
5. I have six coins in my pocket. They are worth 30 cents. What could I have? (1 quarter and 5 pennies or 6 nickels). This problem has more than one answer. It is challenging for children to experience problems like this.
6. I have coins in my pocket, which have a value of 11 cents. How many coins could I have?

You get the idea! Give your child a few coins to figure out the answers.

Parent Pointer	
!	Use this activity to help your child develop an understanding of patterns and variables (the unknown) to solve a problem. This is critical to understanding algebra.

Day 3 Science

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- **drought** (noun): a long time without rain
- **extremely** (adverb): very
- **educational** (adjective): having to do with learning
- **marathon** (noun): a long race, usually 26 miles
- **parched** (adjective): dried out

Activity 1: *A Race to Get Water (English or Spanish)*

- Read the article below and answer the questions that follow.
- Para Espanol, prime aquí: http://SCHOOLS.NYC.GOV/Documents/teachandlearn/LearnatHome/ELL/4day3sp.pdf

LONDON, England (Achieve3000, May 19, 2008). In April, six Maasai warriors ran in the London Marathon. They were from the African nation of Tanzania. The warriors weren't trying to break any records, however. They were hoping to bring attention to the drought in their country. They also wanted to raise money to help improve conditions there.

The six warriors are Isaya, Kesika, Lengamai, Ninna, Nguvu, and Taico. They wanted to raise money to dig wells for safe drinking water in their village. The village is home to about 1,000 people. A 40-year drought has parched the Maasai people's land. Last year, the area went 10 months without any rain. This has led to the deaths of many older adults, children, and cattle. However, underground streams have been found in the area. This is why the warriors want to dig wells.

What made the Maasai warriors decide to run a marathon? It first came up during an English language class. The Maasai students were discussing verbs, including the word "run." The class began talking about marathons.

"[The students] asked, 'What is a marathon?'" said Paul Martin. Martin is with Greenforce. This group has worked to help the Maasai for three years. "I explained to them that many people run every year in the London Marathon to raise money for [different] causes."

The warriors realized that they could run a marathon to raise at least $39,400. Why $39,400? It is the amount needed to dig one well for their Eluai village.

"They found it quite [amazing] that you can [raise money] just by running. . . . This is something they do every day, anyway," Martin explained.

The warriors are used to traveling long distances. The Maasai number between 500,000 and 1 million. They live across East Africa in the countries of Kenya and Tanzania. They often wander to find water. The Eluai villagers roam about 18.6 miles from home each day with their cattle. They run between houses, which can be as far as 6 miles apart. Children run to and from school.

Day 3 Science (continued)

Yet, these trips are becoming more dangerous because of the drought. Tanzania has a hot, sunny climate. People who walk or run long distances can become extremely thirsty. They can also be attacked by wild animals.

In April, the warriors arrived in London for the marathon. None of them had ever visited a large city. Also, they were not used to the climate of the English capital. Temperatures in London were in the low 50s. In their village, temperatures were in the high 80s.

April 13 was the day of the marathon. The warriors raced in their traditional red robes. They wore shoes made from car tires instead of sneakers. They also wore beads and carried shields and sticks, as they do while traveling across their homeland.

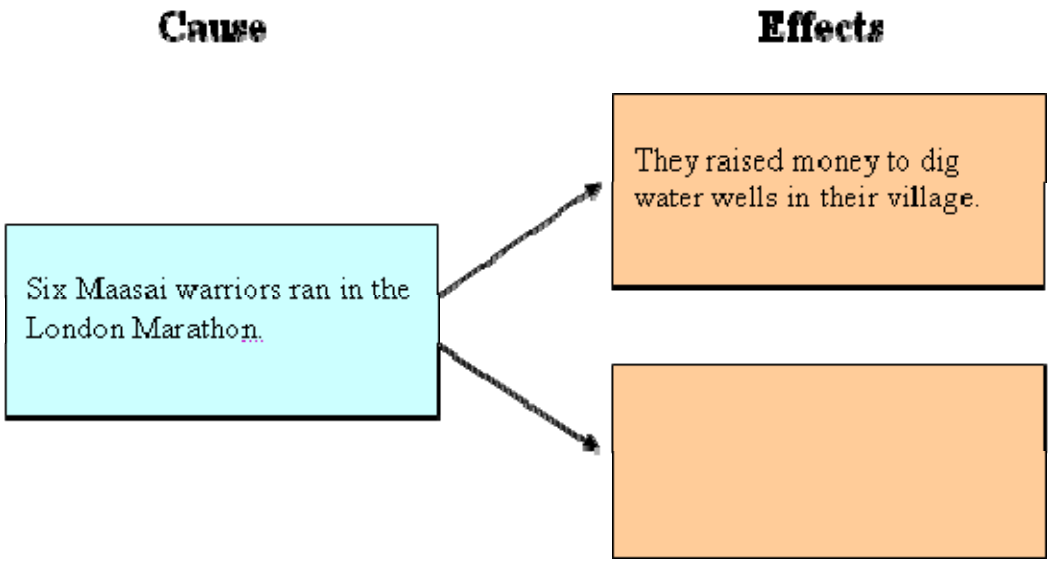
The warriors knew that their fundraising would go well even before they ran the marathon. Three days before the race, three people approached Dave Bedford, who is in charge of the marathon. They gave him $296 for the Maasai.

"The fact that [people] have heard what [the warriors] are doing and that they understand how magnificent it is, is a great sign," Bedford said.

After the race, fundraising continued online. As of May 19, the warriors had raised over $200,000 for their village.

Information for this story came from AP.

Day 3 Science (continued)



Question 1: Which fits best in the empty box above?

1. They brought people's attention to the drought in Tanzania.
2. They improved their running speed for other races.
3. They began learning English words, like the word "run."
4. They visited a number of distant countries.

Question 2: What is the seventh paragraph mainly about?

1. There are as many as one million Maasai people
2. Maasai warriors are used to roaming very far from home.
3. Kenya and Tanzania are located in East Africa.
4. Houses in the Eluai village can be as far as six miles apart.

Question 3: The article states: The Eluai villagers roam about 18.6 miles from home each day with their cattle. Which would be the closest synonym for the word roam?

1. Whittle
2. Capture
3. Wander
4. Celebrate

Question 4: The reader can tell from the article that _____.

1. The Maasai warriors must have decided not to learn English.
2. The Maasai warriors must have never run in a marathon before.
3. The Maasai warriors must be the only people who run in their village.
4. The Maasai warriors must be planning to move to London very soon.

Day 3 Science (continued)

Question 5: Which of these is an opinion?

1. The Maasai warriors had never visited a large city before they went to London.
2. Before the marathon began, people started giving money to help the village.
3. The Maasai looked foolish running in traditional red robes and carrying shields.
4. One reason the warriors ran the race was to earn money to help their village.

Question 6: Suppose you were writing a summary of the article. Which of these would be most important to put in the summary?

1. The warriors ran in the race to tell people about problems in their country.
2. Last year, the village did not have any rain for 10 months in a row.
3. The cost of digging one well for the village is $39,400.
4. People who run long distances can become thirsty.

Question 7: Which is the closest synonym for the word magnificent?

1. Awkward
2. Anxious
3. Ashamed
4. Amazing

Question 8: The news article says all of these except _____.

1. What work Paul Martin does at Greenforce
2. How the Maasai warriors did in the marathon
3. Why the Maasai warriors decided to run a race
4. How the weather in London and Eluai is different.

Suppose you were going to make a movie. It would be about the six Maasai warriors. Tell about your movie and what it would show. Write your answer below.

Day 4 Schedule

Subject	Minutes Per Day (At Least!)	Assignments	What Did I Learn Today?
Reading and Writing	45	• Learn new vocabulary words from the Vocabulary List • Activity 1: Read a story • Activity 2: Answer questions about the story	•
Math	45	Complete: • How Much Do We Save? • Wish List	•
Science	30	Complete: • Man Changes Lives in Sudan (English or Spanish)	•
Fitness and Health	30	• Choose one or two activities from the Activity Calendars	•
Arts	30	• Choose one or two activities from Music section	•
TV Shows and Websites	30	• Choose TV shows and websites to further your learning at home	•

Day 4 English Language Arts

Vocabulary

Learn new vocabulary words to prepare to read the sonnet "The New Colossus" by American poet Emma Lazarus.

New word: **brazen**
Definition: Loud, harsh, and strong
From the reading: Not like that brazen giant of Greek fame …

New word: **astride**
Definition: With a leg on each side
From the reading: With conquering limbs astride from land to land …

New word: **yearning**
Definition: Strong desire (wanting) for some thing
From the reading: Your huddled masses yearning to breathe free …

Activity 1: *Reading*

- Read the sonnet "The New Colossus" by American poet Emma Lazarus that was inscribed in bronze at the base of the Statue of Liberty in 1903.

Not like the brazen giant of Greek fame,

With conquering limbs astride from land to land;

Here at our sea-washed, sunset gates shall stand

A mighty woman with a torch, whose flame

Is the imprisoned lightning, and her name

Mother of Exiles. From her beacon-hand

Glows world-wide welcome; her mild eyes command

The air-bridged harbor that twin cities frame.

"Keep ancient lands, your storied pomp!" cries she

With silent lips. "Give me your tired, your poor,

Your huddled masses yearning to breathe free,

The wretched refuse of your teeming shore.

Day 4 English Language Arts (continued)

Send these, the homeless, tempest-tost to me,

I lift my lamp beside the golden door!"

Practice reading the poem out loud.

Activity 2: *Writing*

- Paraphrase the poem. (Write it line by line in your own words.) What could it be renamed?

_____

_____

_____

_____

_____

_____

_____

_____

_____

Day 4 Mathematics

Vocabulary

Learn the new math vocabulary words below. You will use these vocabulary words in the activities today.

- **Estimate**: When you estimate the answer to a problem it means that you give a pretty good guess at what the answer will be.
- **Combine**: To join two or more things together in order to make one thing.
- **Triple**: To multiply something by three.

Activity 1: *How Much Do We Save?*

- Follow the instructions on the attached sheet. What are some reasons that people use grocery and store coupons?

Activity 2: W*ish List*

- Follow the instructions on the attached sheet. What sort of things do people buy through catalogs?

If you need Spanish activities for the concept of measurement**,** please follow the steps below.

1. Go to tutorial site: http://destination.nycenet.edu

2. Login with the following user ID and PW:
   - User: studentnyc
   - Password: student

3. Click on the Exploration Icon to access the tutorial

4. Scroll down to Mastering Skills & Concepts: Course II-Spanish

5. Select the skill/concept to review:
   - Activity 4: 3.2.2- Money

Notebook Activity

In your notebook, please answer the following question:

- Can you think of any other ways that your family can save money?

Additional Activity

Do you have more time? If so, please complete the following activity.

- Let's Play Store

These activities are from:
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect7.pdf
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect8.pdf

7 How much do we save?

Materials

- Grocery advertisements with coupons
- Scissors
- Pencil and paper (optional)

"Look—here's a coupon for $1.00 off on juice bars, and here's one for 60¢ off my favorite brand of chunky peanut butter! There's a bunch of others we can use, too. I wonder how much we'll save."

Everyone wants to save money! With coupons, children can learn about math and about saving. In this activity, as children figure out coupon savings, they practice adding, multiplying, and estimating with dollars and cents. You can do this activity even if you don't use coupons when you shop.

Before you begin

Alone or with your child, go through grocery advertisements and cut out about 20 coupons. If you use coupons, pick ones you think you'll use on your next trip to the store.

1. Talk about grocery coupons and store savings

If your children are unfamiliar with coupons, explain how people use them. Point out the important information on several coupons—the product, how many you have to buy, the amount of savings, and when the offer expires.

Ask your children to make a quick prediction about how much your family generally spends on groceries each week, and how much you could save with coupons. Some children will have no idea of these amounts. As you repeat this activity, they'll develop a better understanding.

2. Find out the savings

Ask your children to find the total value of all the coupons in the set.

If they need help getting started, ask them to begin by sorting coupons worth the same amount into separate piles—a pile of 25¢ coupons, a pile of 50¢ coupons, and so on. Here are some other things you can suggest:

Combine coupons to make dollars. Suggest finding and grouping coupons that add up to $1.00, such as 40¢ + 60¢, or 25¢ + 25¢ + 50¢. Your children can also make groups that total $2.00, other whole-dollar amounts, or amounts like 50¢ that are easy to work with.

Count up to add coupons worth the same amount. For example, your children could count a group of 25¢ coupons this way: 25¢, 50¢, 75¢…. If your children need help after the first few coupons, you can count along.

Keep track of the coupons already added and those still left to add. Your children can make a special place to set aside coupons after figuring them into the total.

If your children need help finding the total of all the coupons, talk through how you would do it yourself.

3. Explain solutions

Listen to your children as they explain how they added the coupon amounts. Encourage them to check the total by adding the coupons in a different way—for example, by regrouping them into different "dollar" combinations, or adding them up in a different order.

Age range 7–11 (for ages 5–7, see Variations)

When you repeat this activity

Try this with coupons for the pharmacy or hardware store, or with coupons your children choose for their own "pretend" grocery shopping lists. If you use coupons, you can make this activity a regular part of your grocery shopping routine.

For more challenge, if your market doubles or triples the value of any coupons, explain how this works. Children can find the total value of the coupons with this information in mind.

Variations

Use a calculator (ages 7–11)

After your children do this activity with a calculator, ask them to check their results with a mental estimate. For example, they can round coupon values to the nearest 25¢ (round 45¢ to 50¢ or 99¢ to $1.00) and then figure the approximate total. Ask children to talk about times when it makes sense to use a calculator and times when it's just as easy or easier to find the total using common sense.

Do we have enough to save $5.00? (ages 5–7)

Provide about 10 coupons worth different amounts. Choose coupons worth 25¢, 50¢, or whole-dollar amounts. This is the challenge: Find out if there are enough coupons to save your family at least $5.00. (If you have a lot of coupons worth whole-dollar amounts, choose a larger total.) Ask your children to explain how they found the answer.

How can you sort the coupons? (ages 5–7)

This activity can help children work on sorting, logical thinking, and numbers. Provide 20 or more coupons for your children to sort into groups. They can decide what the groups will be. They might form categories like junk food, healthy food, things you can eat, things only pets can eat, or things you use to clean with. When they have finished sorting, ask number questions about their coupon groups:

"Which group has the most coupons? Which group has the fewest? Which coupon lets us save the most? The least?"

8

Wish list

Materials

- A mail-order catalog or advertising supplement likely to contain items of interest to your child. If your child's school sends home book club order forms, you can use those.
- Pencil and paper
- Stick-on notes (optional)

"There are so many great things in this catalog. If I had $50 to spend, what would I buy?"

Mail-order catalogs and advertising supplements can be a temptation, a convenience, and an annoyance. They can also be an opportunity for lots of math! In this activity, children pretend they have a certain amount of money to spend. They use a catalog or an advertising supplement to make a "wish list" of items they can buy for their spending limit. As they make their choices, they practice addition, subtraction, and estimation with dollars and cents. They also learn about working within a budget.

This activity can be a great way to keep children occupied—and doing math—on long trips, at the kitchen table while you're making dinner, or on rainy days.

Before you begin

Pick a spending limit for your child's wish list. The limit need not be realistic, since this is just a wish list.

For children ages 7–9 try a limit between about $25 and $50 the first time you do the activity.

1. What would you get?

Provide a catalog or advertising supplement for your child to look through and suggest making a wish list.

"That easel and paint set would be fun to have. They're not in our price range, but let's pretend we could get some things from this catalog. What would you get if you had $100 to spend?"

Explain that your child can't go over the spending limit, although it's OK to spend a little less.

2. Make a wish list

Your child can record items and prices, or use stick-on notes to mark pages that have items of interest.

If your child needs ideas for getting started, suggest one of these first steps:

Start with one item. Subtract the cost of that item from the spending limit. How much is left to spend?

Start with two items and find out how much they cost together. Are you past the spending limit yet? If so, exchange at least one item for a cheaper one. If not, choose another item.

Round any "dollars and cents" prices to the nearest dollar. If an item is $5.95, call it $6. If it's $5.25, call it $5. Use the whole-dollar prices to do some quick calculations or estimates. Once you get close to your spending limit, figure out the exact amounts to make sure you're not over.

Some children will try several (or many) combinations of items before they settle on a list that is within the spending limit.

If some of the calculations are too challenging, talk through how you would do them yourself. Next time, choose a lower spending limit.

3. Discuss everyone's choices

Listen to your children tell how they made their choices. If they don't mention any calculations, encourage them to tell you about this, too.

"You chose some great things! How did you keep track of all the prices to make sure you stayed under your limit? … Did you come up with any combinations of things you wanted that were over your limit? … So, then what did you do?"

If you notice errors in calculating, encourage your children to explain their thinking further.

"So, you added 18 and 14, and got 31. How did you get that?"

Children may notice and correct mistakes as they talk about how they got their answers. If not, help them work through their own approach again. For example, suppose your child says, "First I added 10 to 18, that's 28. Then I added 4 more—28, 29, 30, 31." Let your child know what was successful, then talk through the trouble spot.

"That's a good way to do it—tens first, then ones. So you have 28 and you want to add 4. What's 28 and 1 more? … OK, 29. What's 28 and 2 more? … 3 more? … 4 more?"

When you repeat this activity

Use different catalogs and advertising supplements, and vary the spending limits. Ask your children to explain some of the calculations they are doing as they make their wish lists, and encourage them to check their work by doing the calculations in a different way.

Variations

Use a calculator (ages 7–11)

Many adults use calculators when doing routine calculations at home and at work, so it's important that children have a chance to learn what calculators can do. As children are making their choices and checking to see if they've reached the limit, ask them to tell you how they're using the calculator.

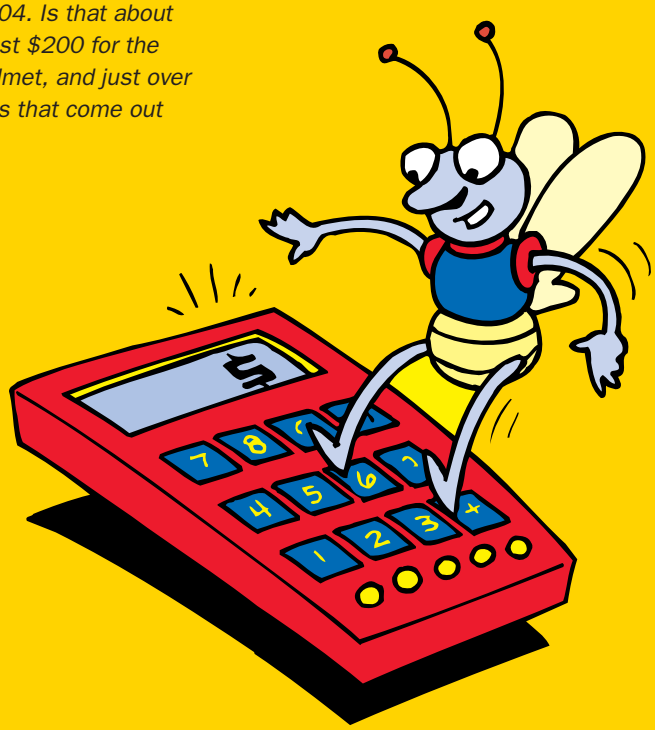
"So, what did you enter? … Did you add or subtract? … That number on the calculator display—what's that the total of?"

Let children know that when they use calculators, it's important to make sure they've entered correct calculations. Encourage them to check their results with a mental estimate.

"So the total for the bicycle, helmet, and sneakers comes out to $304. Is that about right? Let's see—it's almost $200 for the bike, about $40 for the helmet, and just over $50 for the sneakers. Does that come out close to $300?"

What do we save? (ages 7–11)

Sometimes mail-order companies put out "sale" catalogs in which some or all of the items are reduced in price. Usually, both the original price and the sale price are given. Ask your children to decide what they would buy for a given spending limit, and also to calculate how much they would save from the original prices.



Let's Play Store

What you'll need

Empty containers (cartons or boxes), old magazines, books, newspapers, calculator, pencil or crayon, and paper

What to do

1. Help your child collect empty containers so that you can play as if you were shopping at the grocery store. Gather the items and put them on a table.
2. Help your child think of a price for each item. Mark the prices on the containers. You can even mark some items on sale.
3. Pretend to be the customer while your child is the cashier.
4. Teach your child the difference between the math symbols (+, -, ÷, x, and =) and how they are used when using the calculator. Help your child add the prices of each item on the calculator and total the amount using the (=) symbol. Have your child write the total on a piece of paper, which will be your receipt.
5. While you and your child play store, you can ask questions likehow much would it cost to buy three cartons of eggs? How much does 1 box of soap cost, if they are 2 for $5.00? How much is my bill, if I don't buy the cereal? How much more will it cost if I buy this magazine? Have your child estimate the amounts of the items you are buying. Check to see if the estimation is correct on the calculator.

Parent Pointer
! Learning to use the calculator will help your child understand and apply estimation and reasoning skills, as well as learn addition, subtraction, division, and multiplication.

Day 4 Science

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- **charity** (noun): a group that helps people in need
- **college** (noun): a place where people go to school after high school
- **infected** (adjective): being full of something that could cause sickness
- **orphan** (noun): child who does not have any parents
- **refugee** (noun): a person who runs from a place to find safety

Activity 4: *Man Changes Lives in Sudan (English or Spanish)*

- Read the article below and answer the questions that follow.
- Para Espanol, prime aquí: http://SCHOOLS.NYC.GOV/Documents/teachandlearn/LearnatHome/ELL/4day4sp.pdf

Printed by: Aron Persaud

KHARTOUM, Sudan (Achieve3000, April 13, 2008). The northeast African country of Sudan was involved in a terrible civil war. That was from 1983 to 2005. During that time, roughly 2.2 million people died. Many died from hunger and disease. Another 4 million were forced to leave their homes. More 17,000 of them were orphans. They were called the "Lost Boys of Sudan." They trudged hundreds of miles from their villages to refugee camps in neighboring countries. Salva Dut was one of those boys. Now, Dut is 30 years old. He is one of a handful of Lost Boys to return to Africa to help people. He has started a charity called Water for Sudan.

In 1995, Dut was among the first of nearly 4,000 rescued Lost Boys brought to the United States. Here, he made a strong effort to improve his life. He learned English, went to college, and got a job.

In 2001, Dut was happy to learn that his father, Mawien, had lived through the terrible war in Sudan. But Dut's happiness soon faded when he learned that his father was sick. Mawien had become ill by drinking infected water. Doctors told him that if he wanted to live, it was important that he avoid infected water.

That was easier said than done, however. Drinkable water in Sudan is rare.

Dut traveled back to Sudan to take care of his father. While he was there, he too became ill from the drinking water.

Dut was moved by his experience in Sudan. He decided to do something to help the Sudanese people. He set up the charity called Water for Sudan. The charity travels to distant African villages. The charity drills wells that draw water from under the ground. These wells supply clean, safe water. In 2005, the first well was drilled. It was drilled in Dut's father's village of Lou-ariik.

The wells bring more than safe drinking water to the people of Sudan: They also allow villagers to remain in one place and build a community.

Day 4 Science (continued)

Many Sudanese people—usually children—must walk great distances to collect water. The water is from muddy swamps or ponds. Many children must spend their entire day getting water. They do not have time for school. A single trip can take four hours. Several trips each day are often needed. During the dry season, many ponds and swamps disappear. Entire villages are forced to pack up their belongings. They travel, searching for a new place to find water. This keeps them from building schools, stores, and health care centers.

With a well, a village has the chance to put up buildings. After the well was built in Lou-ariik, for example, a busy market developed. A health care center was also opened. In another village, a large schoolhouse was built. It now serves 566 pupils.

Dut now spends half of his year in Africa. There, he manages the drilling of wells. He spends the rest of the year in the U.S. Here, he raises funds for Water for Sudan. The charity has thus far built 17 wells. The wells currently support 60,000 people.

Information for this story came from AP.

KEY CONCEPTS

In 1995, Salva Dut was rescued with almost 4,000 other young boys in Sudan, Africa, during the long civil war there. They were called the "Lost Boys of Sudan" because most were orphans who had walked hundreds of miles together from their villages to refugee camps.

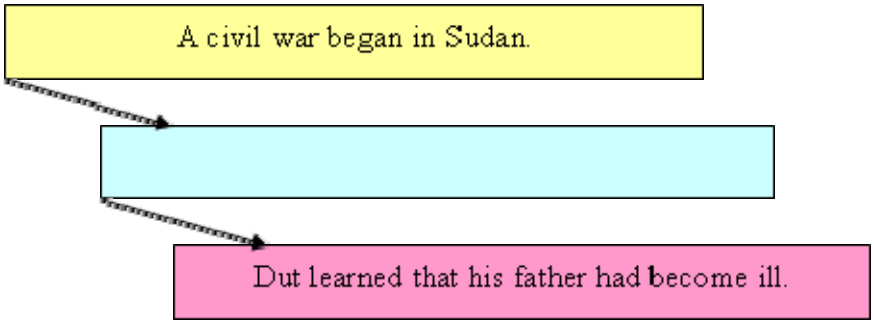
Dut immigrated to the U.S., learned English, went to college, and got a job. Then in 2001, he learned that his father was alive and still living in Africa. His father, though, was very ill from drinking infected water.

Dut decided he wanted to help his father and thousands of others have safe drinking water. He started a charity that builds wells. So far, the charity has built wells to sustain 60,000 people in the region.

Dut is just one of a few now-adult Lost Boys who returned to Africa with humanitarian projects. He spends about half his year in Africa and the other half in America raising funds for his charity.
Instructions:

Day 4 Science (continued)

What Happened Next?



Question 1: Which fits best in the box above?

1. Dut went to take care of his father.
2. A well was drilled in the village of Lou-ariik.
3. Dut was brought to the United States.
4. A charity called Water for Sudan was started.

Question 2: According to the article, what caused Salva Dut to set up a charity?

1. Dut believed the charity would help end the civil war.
2. He wanted to spend time with his father.
3. Dut believed the charity would improve his own life.
4. He wanted to help the Sudanese people.

Question 3: Which is the closest synonym for the word infected?

1. Difficult
2. Horrified
3. Diseased
4. Honest

Question 4: The article states: During the dry season, many ponds and swamps disappear.
The author probably wrote this sentence to help the reader understand _____.

1. Why entire villages must pack up and move
2. Where Dut decides to drill new wells
3. Why clean water in Sudan is rare
4. Where the Sudanese get water

Question 5: The article states: They trudged hundreds of miles from their villages to refugee camps in neighboring countries. Which would be the closest synonym for the word trudge?

1. Hike
2. Plunge
3. Flicker
4. Wrinkle

Day 4 Science (continued)

Question 6: Which question is not answered by the article?

1. How many wells has Dut's charity built?
2. What job did Dut get after college?
3. Why did Dut leave Sudan?
4. How old is Salva Dut?

Question 7: What is the main idea of this article?

1. A man found his father after he thought he had died.
2. A long and terrible civil war took place in the country of Sudan.
3. A man set up a charity that brings clean water to Sudan.
4. A long and dry summer caused swamps and ponds to disappear.

Question 8: Which of these is an opinion?

1. Roughly 2.2 million people died in Sudan's civil war.
2. Everyone should make an effort to help people in need.
3. About 4 million people left their homes during the war.
4. Salva Dut came to the United States and went to college.

Let's say that you want to help Dut's charity. What would you say to get people to give money? Write about Dut's life. Tell how he helps people in Sudan. Use ideas from the news story to help you. Use your own ideas, too. Write your answer below.

Day 5 Schedule

Subject	Minutes Per Day (At Least!)	Assignments	What Did I Learn Today?
Reading and Writing	45	• Learn new vocabulary words from the Vocabulary List • Activity 1: Read a fairy tale • Activity 2: Write an updated version of the fairy tale	•
Math	45	Complete: • Which Holds the Most? • How Much is on the Floor?	•
Science	30	Complete: • Green Energy Jobs (English or Spanish)	•
Fitness and Health	30	• Exercise for 30 minutes. Choose from the Activity Calendars at the back of this packet	•
Arts	30	• Choose one or two activities from the Arts Activities at the back of this packet	•
TV Shows and Websites	30	• Choose TV shows and websites to further your learning at home	•

Day 5 English Language Arts

Vocabulary

Learn new vocabulary words to prepare to read the fairy tale.

New word: **worn**
Definition: Torn and old-looking
From the reading: However, every morning their shoes were found to be quite **worn** through as if they had been danced in all night.

New word: **chamber**
Definition: Room
From the reading: …the door of his **chamber** was left open.

New word: **simpleton**
Definition: A fool; someone who does not have good sense
From the reading: 'You **simpleton**,' said the eldest …

New word: **declare**
Definition: Say; announce; speak out
From the reading: As soon as the time came when he was to **declare** the secret …

Activity 1: *Reading*

- Read the following fairy tale by the Brothers Grimm.

Directions: Use this graphic organizer as you read the story.

Characters

Setting

Problem

Events
1)
2)
3)
4)
5)

Solution

The Twelve Dancing Princesses

There was a king who had twelve beautiful daughters. They slept in twelve beds all in one room and when they went to bed, the doors were shut and locked up. However, every morning their shoes were found to be quite worn through as if they had been danced in all night. Nobody could find out how it happened, or where the princesses had been.

So the king made it known to all the land that if any person could discover the secret and find out where it was that the princesses danced in the night, he would have the one he liked best to take as his wife, and would be king after his death. But whoever tried and did not succeed, after three days and nights, they would be put to death.

A king's son soon came. He was well entertained, and in the evening was taken to the chamber next to the one where the princesses lay in their twelve beds. There he was to sit and watch where they went to dance; and, in order that nothing could happen without him hearing it, the door of his chamber was left open. But the king's son soon fell asleep; and when he awoke in the morning he found that the princesses had all been dancing, for the soles of their shoes were full of holes.

The same thing happened the second and third night and so the king ordered his head to be cut off.

After him came several others; but they all had the same luck, and all lost their lives in the same way.

Now it happened that an old soldier, who had been wounded in battle and could fight no longer, passed through the country where this king reigned, and as he was traveling through a wood, he met an old woman, who asked him where he was going.

'I hardly know where I am going, or what I had better do,' said the soldier; 'but I think I would like to find out where it is that the princesses dance, and then in time I might be a king.'

'Well,' said the old woman, 'that is not a very hard task: only take care not to drink any of the wine which one of the princesses will bring to you in the evening; and as soon as she leaves you pretend to be fast asleep.'

Then she gave him a cloak, and said, 'As soon as you put that on you will become invisible, and you will then be able to follow the princesses wherever they go.' When the soldier heard all this good advice, he was determined to try his luck, so he went to the king, and said he was willing to undertake the task.

He was as well received as the others had been, and the king ordered fine royal robes to be given him; and when the evening came he was led to the outer chamber.

Just as he was going to lie down, the eldest of the princesses brought him a cup of wine; but the soldier

threw it all away secretly, taking care not to drink a drop. Then he laid himself down on his bed, and in a little while began to snore very loudly as if he was fast asleep.

When the twelve princesses heard this they laughed heartily; and the eldest said, 'This fellow too might have done a wiser thing than lose his life in this way!' Then they rose and opened their drawers and boxes, and took out all their fine clothes, and dressed themselves at the mirror, and skipped about as if they were eager to begin dancing.

But the youngest said, 'I don't know why it is, but while you are so happy I feel very uneasy; I am sure some mischance will befall us.'

'You simpleton,' said the eldest, 'you are always afraid; have you forgotten how many kings' sons have already watched in vain? And as for this soldier, even if I had not given him his sleeping draught, he would have slept soundly enough.'

When they were all ready, they went and looked at the soldier; but he snored on, and did not stir hand or foot: so they thought they were quite safe.

Then the eldest went up to her own bed and clapped her hands, and the bed sank into the floor and a trap-door flew open. The soldier saw them going down through the trap-door one after another, the eldest leading the way; and thinking he had no time to lose, he jumped up, put on the cloak which the old woman had given him, and followed them.

However, in the middle of the stairs he trod on the gown of the youngest princess, and she cried out to her sisters, 'All is not right; someone took hold of my gown.'

'You silly creature!' said the eldest, 'it is nothing but a nail in the wall.'

Down they all went, and at the bottom they found themselves in a most delightful grove of trees; and the leaves were all of silver, and glittered and sparkled beautifully. The soldier wished to take away some token of the place; so he broke off a little branch, and there came a loud noise from the tree. Then the youngest daughter said again, 'I am sure all is not right -- did not you hear that noise? That never happened before.'

But the eldest said, 'It is only our princes, who are shouting for joy at our approach.'

They came to another grove of trees, where all the leaves were of gold; and afterwards to a third, where the leaves were all glittering diamonds. And the soldier broke a branch from each; and every time there was a loud noise, which made the youngest sister tremble with fear. But the eldest still said it was only the princes, who were crying for joy.

They went on till they came to a great lake; and at the side of the lake there lay twelve little boats with twelve handsome princes in them, who seemed to be waiting there for the princesses.

One of the princesses went into each boat, and the soldier stepped into the same boat as the youngest. As they were rowing over the lake, the prince who was in the boat with the youngest princess and the soldier said, 'I do not know why it is, but though I am rowing with all my might we do not get on so fast as usual, and I am quite tired: the boat seems very heavy today.'

'It is only the heat of the weather,' said the princess, 'I am very warm, too.'

On the other side of the lake stood a fine, illuminated castle from which came the merry music of horns and trumpets. There they all landed, and went into the castle, and each prince danced with his princess; and the soldier, who was still invisible, danced with them too. When any of the princesses had a cup of wine set by her, he drank it all up, so that when she put the cup to her mouth it was empty. At this, too, the youngest sister was terribly frightened, but the eldest always silenced her.

They danced on till three o'clock in the morning, and then all their shoes were worn out, so that they were obliged to leave. The princes rowed them back again over the lake (but this time the soldier placed himself in the boat with the eldest princess); and on the opposite shore they took leave of each other, the princesses promising to come again the next night.

When they came to the stairs, the soldier ran on before the princesses, and laid himself down. And as the twelve, tired sisters slowly came up, they heard him snoring in his bed and they said, 'Now all is quite safe'. Then they undressed themselves, put away their fine clothes, pulled off their shoes, and went to bed.

In the morning the soldier said nothing about what had happened, but determined to see more of this strange adventure, and went again on the second and third nights. Everything happened just as before: the princesses danced till their shoes were worn to pieces, and then returned home. On the third night the soldier carried away one of the golden cups as a token of where he had been.

As soon as the time came when he was to declare the secret, he was taken before the king with the three branches and the golden cup; and the twelve princesses stood listening behind the door to hear what he would say.

The king asked him. 'Where do my twelve daughters dance at night?'

The soldier answered, 'With twelve princes in a castle underground.' And then he told the king all that had happened, and showed him the three branches and the golden cup which he had brought with him.

The king called for the princesses, and asked them whether what the soldier said was true and when they saw that they were discovered, and that it was of no use to deny what had happened, they confessed it

all.

So the king asked the soldier which of the princesses he would choose for his wife; and he answered, 'I am not very young, so I will have the eldest.' -- and they were married that very day, and the soldier was chosen to be the king's heir.

Day 5 English Language Arts (continued)

Directions: Now use this same organizer to prepare to write your updated version of the "Twelve Dancing Princesses."

Characters

Setting

Problem

Events
1)
2)
3)
4)
5)

Solution

Activity 2: *Writing*

- If this story were to happen today, how would it be different? Write an updated version of the Twelve Dancing Princesses below. Or write an updated version of the story as if there were 12 princes instead of princesses.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Day 5 English Language Arts (continued)

Day 5 Mathematics

Vocabulary

Learn the new math vocabulary words below. You will use these vocabulary words in the activities today.

- **Geometry**: Geometry is the science that studies the size and shape of things.
- **Dimension**: Refers to the length, width and height of an object. Each of these is one dimension of the object.
- **Volume**: Volume is the amount of space inside of something like a cube. Volume is always measured using linear measurements (like inches and centimeters) cubed to represent three dimensions.

Activity 1: *Which Holds the Most?*

- Follow the instructions on the attached sheet. How do you know how much a container can hold?

Activity 2: *How Much is on the Floor?*

- Follow the instructions on the attached sheet. To make an estimate would you just guess or use some strategy?

If you need Spanish activities for the concept of measurement**,** please follow the steps below.

1. Go to tutorial site: http://destination.nycenet.edu

2. Login with the following user ID and PW:
   - User: studentnyc
   - Password: student

3. Click on the Exploration Icon to access the tutorial

4. Scroll down to Mastering Skills & Concepts: Course II- Spanish

5. Select the skill/concept to review:

Activity 5: 3.2.1 - Time

Notebook Activity

In your notebook, please answer the following question:

- How close were your estimates or predictions to the actual results? Did you get better as you got more practice?

These activities are from:
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect9.pdf
http://athomewithmath.terc.edu/english_PDF/math_ENG_sect2.pdf

9

Which holds the most?

Materials

- A variety of plastic containers and bottles (see "Before you begin")
- Large waterproof container or mat for catching any spills when you pour water (optional)
- Funnel or pitcher for pouring (optional)

"I thought this tall container would hold everything, but it doesn't! I'll try this other one—it's shorter, but much wider."

Estimating how much can fit in a container, box, or suitcase is a practical skill that involves the math of geometry and measurement. In this activity, children work on this important math as they look for the container that holds the most water. They learn about length, width, and height—the three "dimensions" of three-dimensional shapes. They also learn that it's important to consider all three dimensions when you're trying to figure out what's the biggest.

Try this activity when you have a few extra minutes and are near a water source (the kitchen tap, the bathtub, an outdoor hose, or the beach).

Before you begin

Gather a few empty plastic containers in different sizes and shapes. You can use storage containers, toy bottles or pails, or containers that once held safe household products such as dish soap, syrup, or juice. (Clean them, and if possible, take the labels off.) Try to include some containers that hold about the same amount but look very different.

1. Predict which can hold the most

Ask your children to predict which container would hold the most if all the containers were full.

"What if we filled these empty containers all the way up with water—which one do you think would hold the most water?"

Some children may look at measures on container labels (such as "16 fl. oz." or "295 ml") to find which container holds the most. If this happens, suggest that just for fun, everyone should try predicting without looking at the labels.

2. Explain the predictions

Ask your children to give reasons for their predictions.

"Why do you think this one will hold the most?"

If they say, "It just looks bigger," encourage them to think about size and shape.

"Is the one you think will hold the most the tallest? Widest? Roundest?"

3. Test the predictions

Start with a container that someone thinks will hold the most. Fill it with water. If it's really the largest, there should be some extra when you pour the water into any of the other containers.

Choose another container and pour the water into it. (A funnel or pitcher can make the pouring easier.) Is there any water left over?

Keep trying this with different containers until you're sure which one holds the most.

4. Discuss whether the predictions matched the results

If your children were surprised about which held the most, encourage them to consider size and shape:

"We both predicted that this tall, thin shaving lotion bottle would hold the most, but this round shampoo bottle held the most. I wonder why. Do you think it's something about how wide it is?"

When you repeat this activity

Try some different containers—larger or smaller ones, a variety of sizes and shapes. Encourage younger children to use more "size and shape" words (such as wide, long, tall) as they talk about the containers. Challenge older children to find containers in the house that hold about the same amount but are shaped very differently.

Variations

How many times larger? (ages 7–11)

Gather a variety of empty containers. Include a small one (such as a spice jar) to "measure" the others with. Then, make some predictions:

"Let's say we want to fill up this big syrup bottle with water. We're going to do it by filling this little jar with water. Then, we'll pour the water from the little jar into the syrup bottle. How many times do you think we'd need to do that in order to fill the syrup bottle all the way up?"

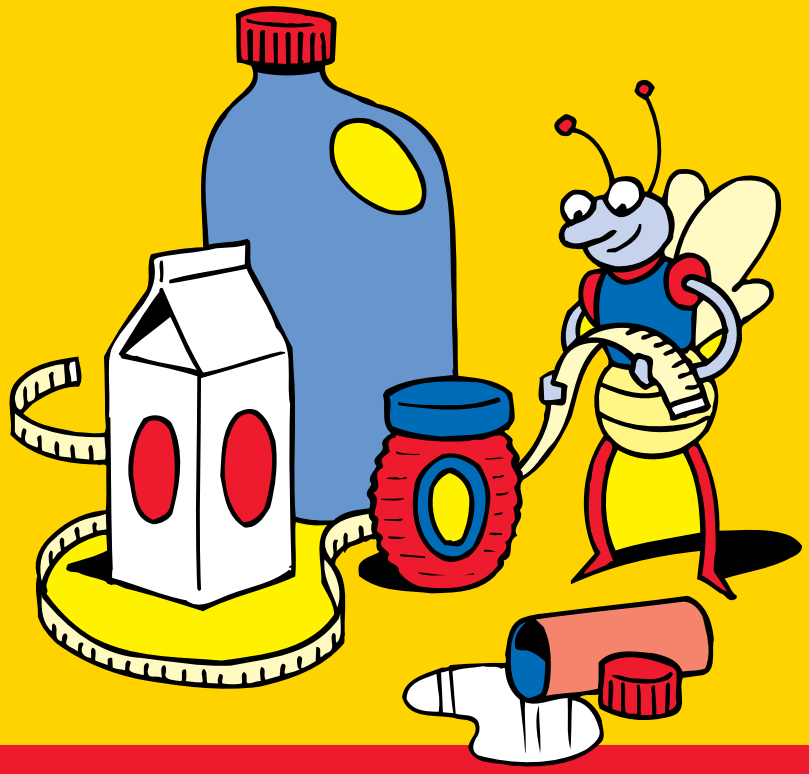
Check predictions by filling the containers with the small one you are using to measure with. Keep track of how many times you pour. If the containers are marked with how much they hold, challenge older children to verify their predictions with calculations based on these capacity measurements, too.

Check with measurements (ages 7–11)

Try this when you're unpacking groceries, organizing shelves, cleaning out the refrigerator, or searching for a container to store leftovers. The containers you use can be empty, full, or partly full.

Choose containers that are marked with how much they hold. Look for this measure on the labels of liquid products (such as honey, liquid detergents, and juice). Some plastic storage containers have this measure on the bottom. This measure is often given in both fluid ounces (fl. oz.) and milliliters (ml). You may also see liters (L), cups (c.), pints (pt.), quarts (qt.), or gallons (gal.). For this activity, use containers marked with the same units.

Ask your children to predict which would hold the most if they were all full. After children make their predictions, show them where one container is marked with how much it holds. Help them find a similar marking on each container, and then ask which number is largest.



2

How much is on the floor?

Materials

Ordinary household clutter

"Oh, Mom! Do I really have to clean up everything?"

Sometimes a little math can make chores more interesting. In this activity, children estimate how many things are scattered on the floor (or in some other cluttered place) and then count the things as they put them away.

Before you begin

Choose something your child can count and put away, such as crayons scattered on a table or toys on the floor. When you can't be available to help your younger children count, choose an area with limited clutter so that they'll be able to do the counting themselves. (Many 5- and 6-year-olds can count only 10 to 20 items accurately, even if they can recite the "counting numbers" much higher.)

1. Estimate how many things there are to put away

Ask your child to make an estimate—or to guess the number of items to be picked up.

"About how many things are we looking at here—about 10? About 50? Closer to 100 or 1000?"

Some children's estimates will be on the high side. They might say there are a thousand or even a million things on a messy floor. Over time, as they practice counting and estimating, their ability to judge amounts will improve.

2. Count the things as they are put away

Suggest that your children count each item that they put away. If you are supervising, you can help younger ones count as the numbers get larger.

3. Compare the actual count with the estimate

Part way through cleanup, give your child a chance to revise the original estimate.

"You predicted that there were about 1000 books on the floor. So far, you put away 29, and there are just a few left. Do you still think there are about 1000? Do you want to change your prediction?"

When the chore is done, compare the actual count to the latest estimate. If the estimate was "way off," assure your child that an estimate is just a guess, and that learning to make close estimates can take a long time.

When you repeat this activity

To give children lots of practice judging amounts, try this activity in different situations: when there are small things like beads or buttons to put away, larger items like clothing or shoes, or items of all different sizes. If you've been helping young children count, see if they can do more of the counting themselves.

Variations

Would that be enough? (ages 5–9)

Decide on a particular number of things for your children to put away. Before they begin, ask them to predict whether that amount is "enough" to clear all the clutter. Vary the task for children of different ages.

For ages 5–7: Give the children a total number of items. *"Look at all these toys on the floor! If we put away 15 toys, do you think we'd get the floor clean? Or would there still be some left on the floor?"*

For ages 7–9: Specify an amount for each of several people to pick up. *"There are three of us here to unload the dishwasher. What if we each put away 14 things? Would that be enough to empty the dishwasher? Let's try it and see."*

What's the most? (ages 5–9)

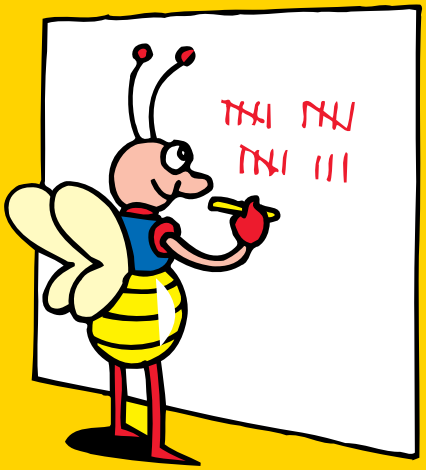
Try this when there are different kinds of things to put away—for instance, when you're sorting clean laundry that includes different kinds of clothes, or when there are different types of art supplies (markers, crayons, sheets of paper) on the table. First, make an estimate. Then count as you sort and put away.

"Let's take everything out of the clothes dryer. Do you think there are more socks, shirts, or towels in this load of laundry?"

"Who do you think has the most clothes in this load of clean laundry—you, Tony, Marco, me, or Mom? Let's sort the laundry to see!"

How many can you put away in a minute? (ages 5–9)

This works well when there are lots of little things scattered around. First, everyone estimates how much they can put away in exactly one minute (or some other amount of time). Then an older child or adult is the timer while everyone else picks up and counts. When the time is up, compare your estimates with your actual counts.



Day 5 Science

Vocabulary

Learn the new vocabulary words below. You will use these vocabulary words in today's activity.

- **dam** (noun): a wall that holds back a river's water
- **ecosystem** (noun): plants and animals that live together in a certain area and depend on one another
- **essential** (adjective): necessary
- **extinct** (adjective): no longer living
- **glimpse** (noun): an idea or understanding of what something is like

Activity 1: *Green Energy Jobs (English or Spanish)*

- Read the article below and answer the questions that follow.
- Para Espanol, prime aquí: http://SCHOOLS.NYC.GOV/Documents/teachandlearn/LearnatHome/ELL/4day5sp.pdf

Printed by: Aron Persaud

When a Flood Is Good News

PAGE, Arizona (Achieve3000, March 17, 2008). Not long ago, two streams of water gushed out of the Glen Canyon Dam. They rushed through the Grand Canyon, causing a flood. This was no accident. Leaders created the flood to help the ecosystem. How? The floodwaters carried sand from the canyon into the Colorado River.

The flood happened quickly and powerfully. More than 300,000 gallons of water a second rushed from Lake Powell. Lake Powell sits above the dam, near the Arizona-Utah border. The water gushed from the dam into the Colorado River below. It glided past the salmon-colored sandstone walls of the Grand Canyon. The dam usually keeps Lake Powell's water from reaching the river.

"This [manmade flood] gives you a glimpse of what nature [did before the dam was built]," said U.S. leader Dirk Kempthorne. He had pulled the lever to start the flood.

The Grand Canyon is a huge wonder of nature in Arizona. It is made up of ancient rock. The canyon was created by water. Over time, the water wore down the rock. It created steep, rough walls and deep valleys.

The water flow in the canyon was important. It helped form the canyon. And, it was essential for the canyon's wildlife. Natural flooding from upstream to downstream spread sand in the Colorado River. This made it warm and muddy. The sand built up sandbars. These sandbars were needed by native plants and fishes. Then, in the 1960s, leaders built the Glen Canyon Dam. The dam created Lake Powell. The lake supplies water for the dry area.

Yet, the dam also had another effect. It harmed the wildlife that had depended on the water flow. After the dam was built, the river turned cool and clear. Sand no longer flowed along with the water. Since the dam was built, up to 98 percent of the sand carried by the Colorado River has been lost. When the sand disappeared, so did the sandbars. Then, the animals that depended on the sandbars suffered. Four kinds of fish became extinct. Two others nearly died out.

Day 5 Science (continued)

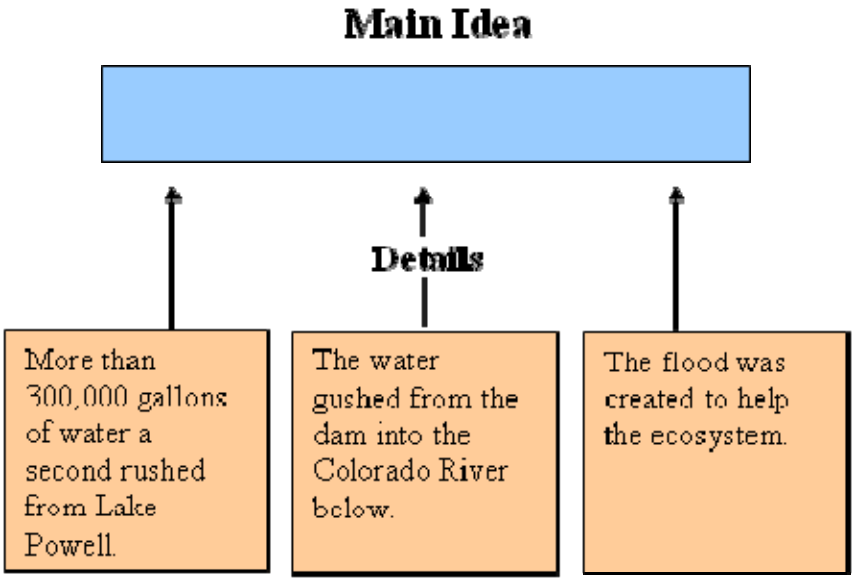
In the 1990s, leaders realized that the dam was harming wildlife. They began to create manmade floods. The floods spread sand in the river. During these floods, the water level in the canyon rises only a few feet. Still, leaders hope that the water will be enough to build back sandbars downstream from the dam.

Steve Martin is the head of Grand Canyon National Park. Martin believes that leaders need to create manmade floods whenever there is enough sand to spread. This works out to be about every two years. However, it depends on how much rain falls during Arizona's rainy season. Leaders have flooded the canyon three times. They flooded it in 1996, in 2004, and in 2008. Some people believe that the canyon should be flooded more often.

Currently, scientists are studying the canyon ecosystem. They want to know how it is changing.

Information for this story came from AP.

Day 5 Science (continued)



Question 1: Based on the article, which fits best in the empty box above?

1. Leaders built Glen Canyon Dam in the 1960s.
2. Years of flooding created the Grand Canyon out of solid rock.
3. Glen Canyon Dam is harming the wildlife that depends on the river.
4. A manmade flood was sent into the Grand Canyon from Lake Powell.

Question 2: According to the article, why are sandbars in the Colorado River disappearing?

1. The Glen Canyon Dam is blocking the sand needed to create the sandbars.
2. The government is using the sand from the river to build roads and bridges.
3. The many boaters on the Colorado River keep knocking down the sandbars.
4. The Colorado River is always above flood level, so it washes the sandbars away.

Question 3: Which of these is an opinion?

1. Leaders built the Glen Canyon Dam on the Colorado River in the 1960s.
2. Lake Powell sits above the Glen Canyon Dam, near the Arizona-Utah Border.
3. Leaders should never have built the Glen Canyon Dam on the Colorado River.
4. Building the Glen Canyon Dam created Lake Powell, above the Colorado River.

Question 4: Which of these words from the article have almost the same meaning?

1. Happened and depended
2. Realized and needed
3. Disappeared and turned
4. Flooded and gushed

Day 5 Science (continued)

Question 5: Which event had not yet taken place when this article was written?

1. Lake Powell supplied water for the dry areas near the Grand Canyon.
2. Floodwaters were sent from Lake Powell into the Colorado River.
3. Sandbars in the Colorado River below the dam were all built up again.
4. Leaders realized that the dam had been harming wildlife.

Question 6: Suppose you were writing a summary of the article. Which of these would be most important to put in the summary?

1. Leaders hope that the floodwaters will be enough to build back sandbars below the dam.
2. In the 1960s, Lake Powell was created after the Glen Canyon Dam was built.
3. The water levels rise only a few feet during the manmade floods.
4. In the 1960s, leaders built Glen Canyon Dam.

Question 7: In the article, Dirk Kempthorne says: "This [manmade flood] gives you a glimpse of what nature [did before the dam was built]."
Which is the closest synonym for the word glimpse?

1. Flood
2. Dam
3. Idea
4. Plan

Question 8: Which question is not answered by the article?

1. How did building the Glen Canyon Dam change wildlife in the Colorado River?
2. When will leaders create the next manmade flood in the Grand Canyon?
3. How do leaders plan to build back the sandbars in the Colorado River?
4. Which kinds of wildlife were harmed by the loss of the sandbars?

Day 5 Science (continued)

Write a summary of today's news story. To write a summary you should do these things:

STEP 1: First you must read the article carefully.
STEP 2: Look back at the article:

- What is the main idea for each paragraph?
- Take out any facts that are not needed.
- Put all the details in one paragraph.

STEP 3: Reread your summary.
STEP 4: Check your summary. Check it again

Vocabulary List: Grades 4 and 5

ELA	Science	Math	Social Studies	Non-Content Specific
abbreviate	aerodynamic	2-dimensional shape	abolitionist	ability
acrostic	ascend	3-dimensional shape	agriculture	accomplishment
adjective	beneficial relationships	acute angle	Algonquian	accurate
adverb	buoyancy	angle	alliance	achievement
annotate	capacity	area	annexation	acquire
antonym	catapult	bar graph	aqueduct	adapt
article	circuit	centimeter	architect	address
associate	classification scheme	certainty (probability)	architecture	adequate
autobiography	condensation	circumference	artifact	adjust
biography	conductor	cluster	assembly line	adopt
brainstorm	consumer	common denominator	biography	advantage
category	controlled experiment	concave	bodies of water	affect
characteristic	current	concentric	caste system	analyze
chronological order	cycle	congruent	century	apply
citation	data	constant	charter	approach
climax	decomposer	convex	chronology	appropriate
community	dependent variable	cube	citizenship	approximate
composition	deposition	cylinder	civil rights	argument
conclusion	depth	data	climate	arrive
conflict	descend	decimal	colonist	article
conjunction	distance	diagram	colony	aspect
dialect	earthquake	dividend	communism	assess
dialogue	ecosystem	divisibility	compass	associate
dilemma	electromagnet	division	conquest	attach
draft	erosion	endpoint	constitution	attitude
edit	evaporation	equation	continent	attract
editorial	experiment	equilateral triangles	convent	audience
example	factor	equivalent forms	corruption	average
excerpt	fires	estimation	court	aware
explanation	floods	even numbers	craft	balance
expository	food	factors	credibility	below
fable	food chain	fraction	culture	bold
fantasy	food pyramid	gram	custom	brainstorm
fiction	food supply	greatest common factor	debt	brief
first person	food web	horizontal axis	diplomacy	categorize
flashback	growth	improper fraction	discovery	category
genre	harmful relationships	inequality	document	cause
grammar	heat energy	intersect	Dutch	challenges
graphic organizer	hurricanes	isosceles triangle	Dutch West India Company	change
hero	hypothesize	least common multiple	Eastern Woodland Region	character
heroine	igneous	line	economic system	characteristic
homophones	independent variable	line graph	emancipation	chart
imagery	insulator	line segment	employment	clarify
inference	land form	mass	environment	classify
interjection	magnetic field	mean	era	coherent
introduction	magnetism	measurement	expedition	communicate
literal	mass	median	explorer	community

ELA	Science	Math	Social Studies	Non-Content Specific
literary device	measure	meter	export	compare
literature	metamorphic	metric system	factory	complete
memoir	minerals	midpoint	famine	comprehend
metaphor	Mohr's scale	mixed numbers	features	concept
mood	natural disasters	mode	food production	conclude
moral	natural processes	multiple	foreign policy	connect
motivation	nutrition	multiplication	freedom of expression	connection
myth	pendulum	negative number	freedom of religion	consequence
narrative	picture graph	number sentences	freedom of speech	construct
narrator	plot	obtuse angle	frontier	context
nature	precipitation	obtuse angle quadrangle	governor	contrast
noun	producer	odd numbers	historian	contribute
novel	propeller	order of operations	hunter-gatherer confederacy	cooperation
palindrome	recycle	parallel	immigrate	create
paragraph	repair	parallelogram	indigenous people	critical
paraphrase	rocks	percent	inhabitant	culture
participate	sedimentary	perimeter	institution	decide
plot	sequence of events	perpendicular	Iroquois	decrease
point of view	standard	perpendicular lines	justice	define
potential	substance	pie chart	key	demonstrate
prediction	system	point	kingdom	dependence
prefix	topography	polygon	labor	dependent
primary	tornadoes	positive number	landform	describe
prior	trajectory	prime number	landowner	design
pronoun	trial	prism	law	determine
prose	tsunami	probability	league	diagram
punctuation	two-coordinate graph	process of elimination	Lenape	difference
quality	variable	product	local resource	different
quotation	volcanoes	proof	log	differentiate
quote	volume	pyramid	longhouse	discovery
relevant	vortex	quotient	manufacturing	discuss
report	water cycle	radius	mass production	display
requirement	water displacement	ray	media	distinguish
research	weathering	rectangular prism	merchant	effect
resolution	x-axis	remainder	middle class	element
revise	y-axis	rhombus	migrant	emotion
rhyme		right angle	mill	emphasize
rhythm		right angle	missionary	enhance
root		rotation	modernization	essential
scene		rounding	mother country	establish
sequence		ruler	motive	estimate
setting		scale	mountain	evaluate
simile		sphere	Muslim	event
society		survey	native	evidence
stanza		trial and error	natural resource	examine
suffix		variability	navigation	expect
summarize		vertex	New Netherlands	explain
support		vertical axis	occupation	explanation
syllable		volume measurement	ordinance	explore

ELA	Science	Math	Social Studies	Non-Content Specific
synonym thesis statement third person tone trait transition verb verse			overseas trade patriot peasant people pilgrim plague plantation point of view population poverty primary source production protest raw materials reconstruction reform sachem scale settlement slave slogan societal roles tax tenant territory tobacco tolerance topography trade tradition unification	express fact factor feature focus formulate fragment frame function generalize generate graph height horizontal idea identify illustrate imagination implement implicit include increase independent indicate infer information interaction interpret interview investigate issue journal judge judgment justify key knowledge label likely literal locate model objective observe occur opinion opportunity organize pattern perspective position predict

ELA	Science	Math	Social Studies	Non-Content Specific
				prepare primary probably problem procedure process quote react reason recognize record reflect reflection relate relationship relevant represent resource restate resulted in results review revise role sample scale separate sequence several similar solve source statement strategy structure summarize support synthesize system theory trait transfer valid variable verify vertical

Fitness and Health Activities

Participate in **30 or more minutes** of daily physical activity. Choose **at least three (3) activities** from the options below and the following calendars. There is something for everyone! Each one takes about 10 minutes. Increase your heart rate, improve flexibility, and build muscle strength!

If you have access to the Internet, you can track your physical activity by going to http://www.bam.gov/sub_physicalactivity/cal_index.asp, where you can create a customized physical activity calendar.

GRADES 3-5

- Activity Calendar– at the back of this packet as well as online at
  - http://www.aahperd.org/naspe/Toolbox/pdf_files/May09/Calendar_Elem_Eng.pdf (English)
  - Activity Calendar available in Spanish online at
  - http://www.aahperd.org/naspe/Toolbox/pdf_files/May09/Calendar_Elem_Span.pdf (Spanish)
- Small Space Energizers – online at
  - http://www.ncpe4me.com/pdf_files/K-5-Energizers.pdf
- "10 at a Time" Activity Calendar – at the back of this packet as well as online at
  - http://www.aahperd.org/naspe/Toolbox/pdf_files/May09/Ten.pdf
- Get up and Move Game from "Lazy Town" – online at
  - http://www.noggin.com/games/lazytown/lazy_getup/
- Muscle Strengthening Routine at Home – online at
  - http://cdc.gov/physicalactivity/everyone/videos/index.html

May 2009
Elementary Physical Activity Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Duplicated with permission from the National Association for Sport and Physical Education (NASPE). To assess whether your child is receiving a quality physical education program, visit www.naspeinfo.org/observePE for an observation assessment tool.				**1** *Find a big target and throw as hard as you can at it. Step right at the target with your opposite foot.*	**2** *Rainbow game-play with a friend. Name a color- both of you run and touch 3 things of that color. Run fast!*
3 *Log rolls outside in the grass.*	**4** *Play opposite-run fast, run slow, skip high, skip low, march soft, march hard.*	**5** *Play catch with a friend- eyes on the ball, reach, and pull it in to catch it. Coach each other. Can you catch 100 times?*	**6** *Make a hopscotch court and play with family or friends. For ideas, go to: http://www.streetplay.com/rulesheets/pdf/hopscotchsheet.pdf*	**7** *Go outside and run-try different pathways- straight, zigzag, and curved; change speed-fast, slow.*	**8** *Spring cleaning- pick up sticks and grass clippings in the yard.*	**9** *Animal walks-move like a monkey, a rabbit, chicken, a dog, a snake, and a kangaroo.*
10 *Play jacks with a friend. No jacks? Use a little ball and some small stones. Go to: http://www.ehow.com/how_2964_play-jacks.html*	**11** *Can you throw a Frisbee®? Practice with a friend. How many catches can you make? Can you hit a target?*	**12** *Practice dribbling a ball with your feet today.*	**13** *Play statue. Hold a position for 10 seconds, and then try another pose.*	**14** *Balance on four body parts. Then try three. Then balance on two. Can you make different body parts be your base?*	**15** *Try doing cartwheels outside. Remember to start and land with your body sideways.*	**16** *Baseball season is here-practice striking a soft ball off a tee or from a pitch.*
17 *Climb on something today. Plan where to put your hands before you reach.*	**18** *Practice volleying with a friend-use a racquet or paddle. No paddle? Use a Frisbee® to strike.*	**19** *Race your friend today in the playground during recess.*	**20** *Set up bowling on your sidewalk or deck using empty water bottles filled with sand or water.*	**21** *Jump rope today. No rope? Pretend!*	**22** *Go on a neighborhood hike today with a friend- count how many things you see that can be used for physical activity.*	**23** *Practice skipping, skip everywhere you go today. Remember to step hop, step hop, over and over.*
24 *Find some stairs-run up and down the stairs ten times today.*	**25** *Do some sit ups - can you do 25 sit ups?*	**26** *List all the active words you know-do the activities ten times each today.*	**27** *List all the different things you can do with a ball and practice them.*	**28** *Play balloon volleyball over a chair with a friend. Can you keep it up?*	**29** *Do some push-ups outside with your hands on a railing or wall.*	**30** *Go to your local park and play on the playground equipment.*

May 2009
Ten At A Time Physical Activity Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Need help remembering exercises? Go to http://www.shapefit.com/training.html#8 for demos of exercises.	***Duplicated with permission from the National Association for Sport and Physical Education (NASPE). To assess whether your child is receiving a quality physical education program, visit www.naspeinfo.org/observePE for an observation assessment tool.***			*Each day lists one exercise that can be executed "10 at a time". Keep track of each set of 10 reps you accomplish throughout the day, or for cardio, ten minutes of the activity.*	***1 Squats w/ hands behind your head.***	***2 Power-walk 10 min.***
3 Tricep dips.	***4 Bench press.***	***5 Jump rope.***	***6 Concentration curls.***	***7 Lying hamstring curl.***	***8 Sitting overhead press.***	***9 Lying leg raise.***
10 Lifting side plank.	***11 Inclined push-ups.***	***12 Yoga plank position.***	***13 One-arm row to both sides.***	***14 Twisting crunches.***	***15 Stiff-legged dead lift.***	***16 Jump rope 10 min.***
17 Tricep extensions.	***18 Declined push-ups.***	***19 Knee tucks on a bench.***	***20 Bicep curl w/resistance.***	***21 Crunches with a basketball held under your chin.***	***22 Alternating walking lunges.***	***23 10 min power walk/jog.***
24 Toes to ceiling on bench.	***25 Wide arm push-ups.***	***26 Twisting bench crunch.***	***27 Superman.***	***28 Standing shoulder press.***	***29 Calf raises off a step.***	***30 Single leg lift.***

Arts Activities for Grades 3-5

A number of the activities listed reference specific works of art. If you are not familiar with them you may find them on the internet (even the performances). However, these are provided as examples, and you can substitute similar works of art with which you are familiar or to which you have access.

All Arts Activities taken from the *Blueprints for Teaching and Learning in the Arts: Grades PreK-12.*

DANCE

- Practice exercises and combinations learned in a dance classroom that build on strength, awareness, coordination and control.

- Discuss what a dancer brings to dance and what a viewer brings to dance.

- Compare and contrast live or taped performances of dances that are narrative (e.g., Mark Morris' *The Hard Nut*) and abstract (e.g., Paul Taylor's *Esplanade*).

- Compare and contrast works by choreographers such as Jerome Robbins (*Fancy Free*), Fred Astaire/Hermes Pan (*Top Hat*), Paul Taylor (*Three Epitaphs*), Alvin Ailey (*Cry*).

- View videotapes of children studying dance in other countries (e.g., Russia: *The Children of Theatre Street*), and compare with students' own experiences in dance class.

MUSIC

- Listen to an American spiritual such as "Swing Low, Sweet Chariot" and, working in small groups, discuss feelings the song evokes. Use pantomime to demonstrate and capture responses.

- Listen to an orchestral piece such as "Dance Macabre" (Saint-Saens) and, in small groups, brainstorm/list the emotions and feelings evoked by the music. Discuss and report back to the class.

- Create instruments made from recycled or found materials.

- Use the Internet to identify music makers and music-making institutions in New York City.

- Go online and research the most unusual or unexpected jobs in the music industry.

- Develop 10 questions to ask a person in the music industry about jobs other than performing.

THEATER

- Through storytelling, puppetry, poetry jam or pantomime, tell a short original or traditional story, using theater skills. May be done solo or with siblings.

- Write a character biography or autobiography using the "5 W's" (who, what, when, where, why).

- Develop scenes through improvisation, theater games or writing that have distinct character, clear relationships, conflict, setting, actions and beginning- middle- end.

- Use situations from literature, history or current events to create tableaux (frozen body pictures), and then devise character monologues from that frozen moment.

- Measure a room at home, create a ground plan and place furniture according to the plan.

- Design a marketing poster and program with logo or illustration based on a particular story or play.

VISUAL ARTS

- Create a painting that demonstrates:
    - observation of detail
    - use of primary and secondary colors
    - use of tints and shades
    - balanced composition

- Looking at a work of art, discuss how the artists use detail, color, and balance to evoke a sense of place.

- Create a series of drawings that demonstrates:
    - volume
    - proportion
    - gesture
    - control

- Suggested theme: gesture drawings that show a figure at rest, work, and play. Refer to drawings by artists such as Leonardo da Vinci, Edgar Degas, and Keith Haring to explore the expressive use of line; the work of Reginald Marsh and Al Hirschfeld to examine gesture.

- Create a collage using hand-painted paper that demonstrates:
    - awareness of visual textures
    - mixing secondary and tertiary colors
    - designing and cutting out shapes
    - use of positive and negative space

Educational TV Shows

Channel	Show	Subject	Day	Time	Recommended Audience	Description
PBS-13	Cyberchase	Mathematics	Weekdays	8:00 AM; 5:00 PM	2-3, 4-5	Animated series featuring adventures driven by different math concepts. When the dastardly villain The Hacker launches a mad mission to conquer the virtual universe, Motherboard calls upon three Earth kids for help.
Discovery	How It's Made	Science, Engineering	Weekdays	9:00-10:00 AM	4-5, 6-8, 9-12	The show is a documentary program showing how common, everyday items (including food products like bubblegum, industrial products such as motors, musical instruments such as guitars, and sporting goods such as snowboards) are manufactured.
Animal Planet	Growing Up	Nature	Weekday	4:00 PM	4-5, 6-8, 9-12	Each episode is an hour long and follows the life (usually the first year) of a wild animal growing up in captivity.
HBO OnDemand	Crashbox	Science, Math, Vocabulary	OnDemand	27 minutes	2-3, 4-5	Crashbox is an educational television series that airs on the HBO Family digital cable television channel in the United States. It aims to educate grade-school children in history, math, vocabulary, and other various subjects.
HBO OnDemand	Earth to Kids: A Guide to Products for a Healthy Planet	Science, Environmentalism	OnDemand	27 minutes	2-3, 4-5, 6-8	Making the Earth a better place to live is the focus of this special on reducing, reusing and recycling trash.

Channel	Show	Subject	Day	Time	Recommended Audience	Description
WLIW	Maya and Miguel	ELA, Spanish	Weekdays	3:30 PM	2-3, 4-5	The show models how people communicate in English in a variety of social settings. Each episode also focuses on a particular set of vocabulary words, which are repeated throughout the show. In addition, *Maya & Miguel* fosters a positive attitude toward knowing and learning more than one language.