

## CURRICULUM GUIDE: A WORLD OF MONEY



### IN THIS ISSUE

2 A World of Money  
Native American  
Resources

6 Thinking in Circles

9 Did You Know?  
Monetary Resources

5 Money Counts



8 Vocabulary

10 Academic  
Content Standards



## A World of Money

*KidsPost Article: "A World of Money: From Bartering to Beads and Bucks"*

**Lesson:** Use the newspaper to learn more about a culture.

**Level:** Beginning

**Subjects:** Language Arts, History

**Related Activity:** Mathematics

### Procedure

#### Read and Summarize

Read "A World of Money." Ask students to summarize the main idea of the article.

#### Examine and Discuss

The follow two sentences are excerpted from the KidsPost feature. What do students know from what is directly stated in the sentences? As they answer the questions, show students how they can use the information given to them to learn more about a culture.

**The oldest money seems to have been seashells, particularly those small mollusks called cowries, which are common in the Pacific and Indian Oceans.**

1. What probably was first used for money?
2. Use a map to locate the Pacific Ocean. Locate the Indian Ocean. What countries and continents are located on these two oceans?
3. Why might cowries have been the common currency in Africa, India and Asia?
4. How does one obtain a cowrie (also spelled "cowry")?

Have students discuss their experiences gathering seashells and rocks. Did they ever exchange a seashell to obtain a seashell of another size or color? Apply their experience to those who obtained cowries from the ocean as well as to those who exchanged cowries for goods and services. Explain the barter system.

5. For what else might cowries be used?

As jewelry or in art might be answers. Cowrie shells were used as dice. In India for centuries, parchisi, a game similar to backgammon, was played with cowrie shells. (For more information on parchisi, go to <http://web.ukonline.co.uk/james.masters/TraditionalGames/parchisi.htm>)

## Native American Resources

### *On the Web and in Print*

#### ON THE WEB

[http://www.skipjack.net/le\\_shore/accohannock/](http://www.skipjack.net/le_shore/accohannock/)

#### Accohannock: Native American Living Village

Learn about one of the oldest historical tribes in Maryland. After colonization, the area the Accohannocks inhabited became the Eastern Shore of Old Virginia and is presently the Eastern Shore of Maryland and Virginia.

A video about the tribe is available.

<http://www.somd.com/culture/charles/piscataway.htm>

#### The Piscataway Indian Museum

Check the Web and call the American Indian Cultural Center in Waldorf, Md., for more information about this museum.

<http://www.tuscaroras.com>

#### Tuscarora and Six Nations Web Site

An entry point for an online search of the Six Nations.

<http://www.kstrom.net/isk/art/beads/wampum.html>

#### Wampum — Treaties, Sacred Records

Pictures and art illustrate text.

[http://www.peace4turtleisland.org/pages/wampum\\_peace4turtleislandorg.htm](http://www.peace4turtleisland.org/pages/wampum_peace4turtleislandorg.htm)

#### The Haudenosaunee & Wampum

This site of Kanatiyosh includes how wampum is made, what it is used for and how wampum is returned. Kanatiyosh includes her work and e-mail address.

<http://www.hartford-hwp.com/archives/41/037.html>

#### The Significance of Wampum to Seventeenth Century Indians in New England

A graduate student paper. Extensive research.

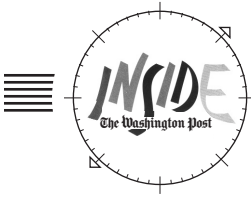
<http://www.tuscaroras.com/ais/index.html>

#### American Indian Society of Washington, D.C.

Web site for Indian people of different tribes living in the metropolitan area. Includes calendar of activities and powwows.

#### IN PRINT

Waldman, Carl. *Atlas of the North American Indian*. Facts on File. ISBN 08 1602 1368. Illustrated by Molly Brawn. Maps, text on wars and daily life, including an excellent chapter on "Indian Lifeways," addressing the impact of geography and natural history on Native American cultures.



European colonists on the East Coast noticed that members of tribes such as the Mohawk, the Cuyuga, the Onondaga, the Oneida, the Seneca and the Tuscarora prized something known as wampum, beads made from the shell of a clam called a quahog.

6. What is “wampum”?

7. Do some research. Find where each of the tribes listed in the article lived.

You might divide the class into six groups and assign each group a different tribe to research. In addition to where the tribe lived, find information about each tribe’s diet, relations with other tribes and trade practice.

8. Why would these tribes use the shell of a clam for barter?

9. How would inland tribes get wampum?

Use this answer to explain trade between tribes.

“A World of Money: From Bartering to Beads and Bucks” can be found at <http://www.washingtonpost.com/wp-dyn/articles/A25944-2000Jun30.html>

## Word Study: A look at cowry shells and porcelain

What do porcelain and a cowry shell have in common?

*They both have a hard and translucent surface. Keep thinking. There is more than meets the eye.*

What do porcelain, a cowry shell and a pig have in common?

*They share a common root. Look more carefully at the cowry shell. Do you see the shape of a pig’s back?*

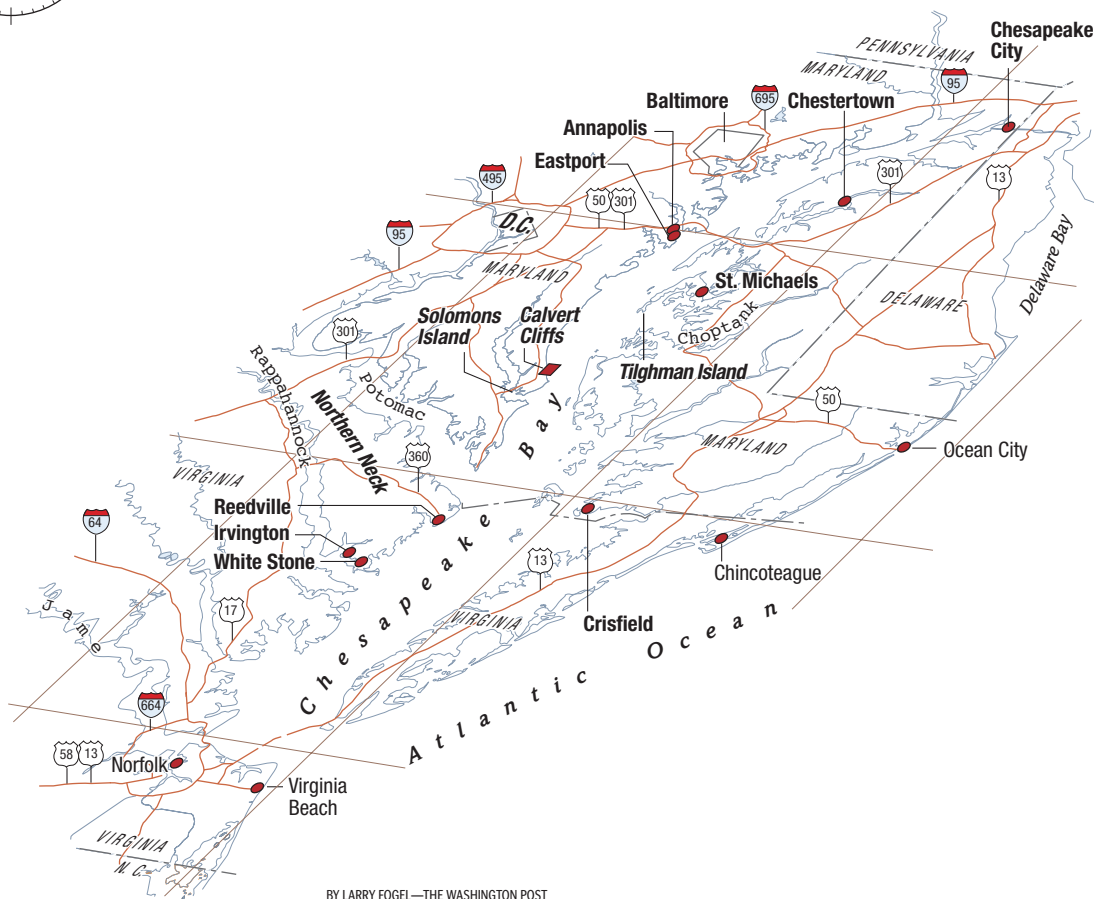
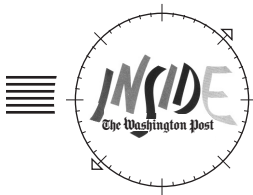
Trace the etymology of “porcelain.” The French word *porcelaine* means both cowry shell and porcelain. *Porcelaine* is derived from Old French which has its root in the Old Italian word *porcellana*, from the feminine of *porcellano*, of a young sow (from the shell’s resemblance to a pig’s back). The Latin word for pig is *porcus*.

Now you can guess how Porky the Pig got his name.



BY MARK FINKENSTAEDT  
FOR THE WASHINGTON POST

This pocketbook is made with turquoise and cowry shells (inset).



BY LARRY FOGEL—THE WASHINGTON POST

## Enrichment

1. How did geography influence the commerce of Native Americans living along the Potomac River and Chesapeake Bay? What tribes lived in the D.C. metropolitan area and along the Eastern Shore? What did they use for money? Did tribes living in this area practice the barter system? What items did these tribes use in commerce?

2. Talk more about money as your students apply their mathematics skills. In Money Counts students answer four questions and make two graphs.

3. When people bartered with cowry shells, they knew they held the real item in their hands. Can we be sure today that the \$5 bill we hold in our hands is authentic?

- To learn more about identifying counterfeit money, go to Dollars and Cents at <http://www.frbatlanta.org/publica/brochure/fundfac/html/spotting.html>.
- To learn how the United States Secret Service and the Bureau of Engraving and Printing fight counterfeiting, go to <http://moneyfactory.com/cd042500/index.html>.
- The United States Bureau of Engraving and Printing illustrates the New 1999 Series Notes on the Web (<http://www.bep.treas.gov/currency.htm>). This site also includes educational material you can order on the new designs.

NAME \_\_\_\_\_

## Money Counts

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1. Money is weighed in troy ounces. There are 12 ounces to a pound in this measure. If there are 490 notes in a pound, how much in troy ounces does a note weigh?
2. A dollar bill is .0043 inches thick. Assuming there is no air between the bills, how thick would a pile of fifty dollar bills stacked upon one another be?
3. How many dollar bills would you need to have an inch-thick pile?
4. Make graphs to communicate the following information. After students have prepared their graphs, ask them to discuss the type of graphs they used to convey the information. Did they use the same type of graph for both problems? Why was one type of graph better than another?

### GRAPH ONE

Old and new pennies look virtually identical, but the new coin is about 19 percent lighter.



- Since 1981 the penny is copper-plated zinc, composed of 97.5% zinc and 2.5% copper
- For decades before 1981 the penny was composed of 95% copper and 5% zinc alloy



### GRAPH TWO

Because of a growing worldwide silver shortage, the Coinage Act of 1965 authorized a change in the composition of dimes, quarters and half-dollars.

- Before the coins had been 90% silver. Silver was eliminated from the dime and the quarter.
- The half-dollar's silver content was reduced to 40%.
- After 1970 silver was eliminated altogether.

*Source: The information for this activity is found on the Federal Reserve Bank of Atlanta Web site, <http://www.frbatlanta.org/public/brochure/fundfac/html/coins.html>.*



NAME \_\_\_\_\_

## Thinking in Circles

*Coins  
are usually round and flat.  
What else is round? A circle.*

1. Trace the outside of a penny. Lift the coin. What do you have?

A circle.

2. Look around you. Where are there circles in your classroom? How many of you listed the clock first? Find five more circles.

3. The boundary line of a circle is called the circumference. It is the distance around the circle. It is also known as the perimeter of a circle.

If you are estimating the circumference, you can use this as a guide. The circumference is close to three times the diameter.

*Before we go further, let's define two words — circumference and diameter.*

4. The word “circumference” is created from a prefix and a root word. The prefix is circum- which means round. The root word is ferre which means to carry. The Latin word circumferre meant to carry around.

What other words do you know that begin with “circum-”?

How are they related to the idea of being round?

5. Your teacher is giving you a circle and a piece of string.

- Place one end of the string on the circumference of your circle.
- Now put the other end of the string at another point on the circle.
- If you went through the center of the circle, you have the diameter.
  - If you didn't go through the center the first time, do it now.
- Carefully mark the string where it touches the edge of the circle.

6. Compare your diameter measure with those of your classmates. Are they all the same length? They should be. Why?

The diameter is any line that joins two points of the circle and passes through the center. As long as you have circles of the same size, the diameters will be the same length.

7. Let's use this information to determine the circumference of your circle.

- Measure the length of the string to the mark you made. Write down the number of centimeters.
- Multiply that number by three.
- This is the approximate size of the circumference of your circle.

8. Make a mark on your circle. You will use this as the starting point.

- Make a dot on a piece of paper.
- Place the mark on your circle exactly on top of the dot.
- Move your circle one revolution. Place a dot on your paper where the mark on your circle reaches.
- Draw a line to connect the two dots.
- Take your string. Does the distance between dots equal three lengths of your string?

9. Mathematicians, scientists and others who use circles in their work need more precision. They use pi ( $\pi$ ). Pi equals 3.141 592 653 589 79 .... This is quite a long number to use in multiplication so we will use 3.14 (three significant figures).

Pi is the ratio of the circumference of a circle to its diameter. This ratio is the same for all circles.

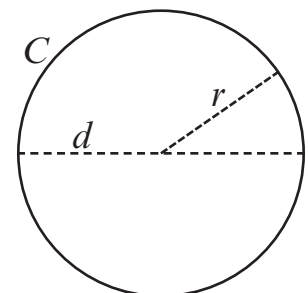
To determine the circumference using pi, you multiply pi times the diameter. Multiply 3.14 times the length of your string. You now have the circumference in a more exact number.

How close were you when you multiplied by three?

You have worked very hard. Take a break. Eat a slice of the orange or, if one is nearby, have a cookie.

# Easy as $\pi$

$\pi=3.14159265358979323846264338$   
327950288419716939937510582097  
494459230781640628620899862803  
48253421170679...



$$\text{Circumference} = 2 \times r \times \pi$$

NAME \_\_\_\_\_

## A World of Money

*These words are found in or are related to the KidsPost article "A World of Money: From Bartering to Beads and Bucks."*

### FILL-IN-THE-BLANKS

Find the vocabulary word that best completes the meaning of the sentence.

1. When people make \_\_\_\_\_ money, people mistrust money.

2. An iron sword with a five-foot blade and copper necklaces were used as \_\_\_\_\_ in Africa.

3. People in Africa, India and Asia used \_\_\_\_\_ for their common currency until recent times.

4. Two students helped their neighbor pull weeds in her garden all day Saturday. The neighbor did not give them money. She gave them piano lessons. This is an example of \_\_\_\_\_.

5. A piece of metal that is used legally as money is called \_\_\_\_\_.

### Vocabulary

#### **Barter**

To trade goods or services without exchange of money. Also a noun and adjective.

#### **Bill**

A piece of legal paper money; an itemized list or statement of charges; a proposed law presented to a legislature.

#### **Coin**

Small piece of metal, usually flat and circular, authorized by the government for use as money.

#### **Coinage**

Process of making coins; metal currency; invention of new words. Also known as "shell money," "cowrie," "wampum."

#### **Cowrie**

Any of various tropical marine gastropods of the family Cypraeidae, having glossy, often brightly marked shells. Also spelled "cowry." [Hindi kau r i, from Sanskrit, kaparkik a, shell, of Dravidian origin.]

#### **Counterfeit**

Fake, not real or genuine.

#### **Currency**

Money in any form in actual use as a medium of exchange.

#### **Mollusk**

Any of numerous chiefly marine invertebrates of the phylum Mollusca. They typically have a soft unsegmented body, a mantle and a protective calcareous shell. Also spelled "mollusc."

#### **Money**

An item of exchange; officially issued coin or paper note.

#### **Note**

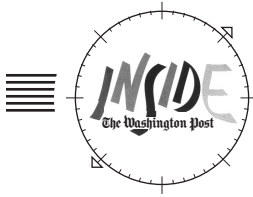
A piece of paper currency; a brief informal letter; words written to aid memory, often used by students to prepare for tests.

#### **Wampum**

Beads or disks made by Native Americans from polished mollusk shells strung in strands, belts or sashes and used for money, ornaments or ceremonial exchange during treaties. Wampum is Algonquian meaning white string of beads. There is also a more valuable purple variety.

*Definitions are from The American Heritage Dictionary*





## Did You Know?

- Before and after the American Revolution, Americans used English, Spanish and French currencies.
- In 1690 the Massachusetts Bay Colony issued the first paper money in the colonies.
- The first “real” American bank was chartered by the Continental Congress in 1781. The Bank of North America was in Philadelphia.
- In 1785 the dollar became the official unit for national currency. This was done by the Continental Congress to establish monetary unity.
- The first American coins were struck in 1793.
- The U.S. Mint was established in Philadelphia in 1816. The U.S. now had a federal monetary system.
- The United States Secret Service was created by the Department of the Treasury in 1865. Their purpose was to control counterfeiting. About one third of circulating currency was estimated to be counterfeit.



BY YONI BROOK FOR THE WASHINGTON POST

## Monetary Resources

### *On the Web*

[http://www.bep.treas.gov/kids\\_site/redirect.html](http://www.bep.treas.gov/kids_site/redirect.html)

### **Money Central Station**

You will need Flash 4 plug-in to enjoy the interactive features of the kids section of the Bureau of Engraving and Printing site.

<http://www.treas.gov/opc>

### **Department of the Treasury The Learning Vault**

Established by the Office of Public Correspondence, this site includes information about tours of the main Treasury Building, history of the Treasury and a catalogue of fact sheets available to the public. Be sure to visit the Treasury's Page for Kids.

<http://www.treas.gov/kids>

### **Treasury's Page for Kids**

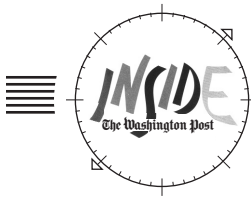
Follow the paw prints of Trez, the alley cat that lives in the Treasury Building. Learn about savings bonds, pay day and the OCC Bank School. Understand taxes through the Simplified Tax & Wage Reporting System (STAWRS Kids). You will meet Trez and the U.S. Customs Canine of the Month.

<http://www.frbatlanta.org/publica/brochure/fundfac/html/home.html>

### **Dollars and Cents**

Fundamental facts about U.S. Money is brought to you by the Federal Reserve Bank of Atlanta. Includes how coins are made and how to spot a counterfeit.

Can you spot the funny money? The Secret Service did.



## Academic Content Standards

*This lesson addresses academic content standards of Maryland, Virginia and the District of Columbia. Among those that apply are:*

The main lesson addresses these academic content standards of:

### Maryland

#### *Social Studies*

Social Studies, Geography (4.0): Students will use geographic concepts and processes to examine the role of culture, technology and the environment in the location and distribution of human activities and spatial connections throughout time. 4.1.5.3: At the end of grade 5, students know and are able to describe the relationship between physical characteristics of a place and the location of human activities.

#### *English Language Arts*

Reading/English Language Arts, Standard 1: Students examine, construct and extend the meaning of a variety of self-selected and assigned text (traditional and electronic) by applying a range of reading strategies and analytic techniques. 1.5.5: At the end of grade 5, students know and are able to evaluate new information and hypotheses by testing them against known information and ideas.

**The “Thinking in Circles” activity addresses these academic content standards:**

#### *Mathematics*

Mathematics, Knowledge of Geometry. By the end of grade 5 students know and are able to draw circles, squares, triangles, and rectangles given their dimensions (MLO 2.5).

A complete list of State Content Standards of Maryland can be found at  
<http://www.mdk12.org/mspp/standards/>.

### Virginia

#### *History/Social Studies*

History/Social Studies, Grade 4, Virginia Studies 4.1: The student will explain the impact of geographic factors in the expansion and development of Virginia, with emphasis on the location of American Indians, various European settlers and African slaves.

#### *English Language Arts*

English Language Arts, Grade 3, Reading/Literature 3.5: The student will demonstrate comprehension of a variety of printed materials. The student will make connections between previous experiences and reading selections. Grade 4, Reading/Literature 4.3: The student will read and learn the meanings of unfamiliar words. Grade 4, Reading/Literature 4.5: The student will make inferences using information from texts.

**The “Thinking in Circles” activity addresses these academic content standards:**

#### *Mathematics*

Mathematics, Measurement 5.9. The student will identify and describe the diameter, radius, chord, and circumference of a circle.

A complete list of Standards of Learning of Virginia can be found on the Web at  
<http://www.pen.k12.va.us/>.

### Washington, D.C.

#### *History*

History, Grade 3, Content Standard 3: Students recognize scientific, technological and economic changes and understand how they have affected societies, culture and politics throughout history. Essential Skills: Explains how people in the past met their needs in different ways (e.g., hunting and gathering, subsistence agriculture, barter, commerce and manufacturing).

#### *English Language Arts*

Reading/English Language Arts, Grade 3, Content Standard 1: Students comprehend and compose a wide range of written, oral and visual texts. Performance Standard: The student relates new information to prior knowledge and experiences; makes connection to related topics or information.

**The “Thinking in Circles” activity addresses these academic content standards:**

#### *Mathematics*

Mathematics, Grade 4. Content Standard 4: The student analyzes characteristics of two- and three-dimensional geometric objects; uses visual and spatial reasoning to analyze mathematical situations; and solves real-life and career-related problems. Essential Skills: The student constructs center, radius and diameter of a circle.

A complete list of Standards for Teaching and Learning of the District of Columbia Public Schools can be found at  
<http://www.k12.dc.us/dcps/>.