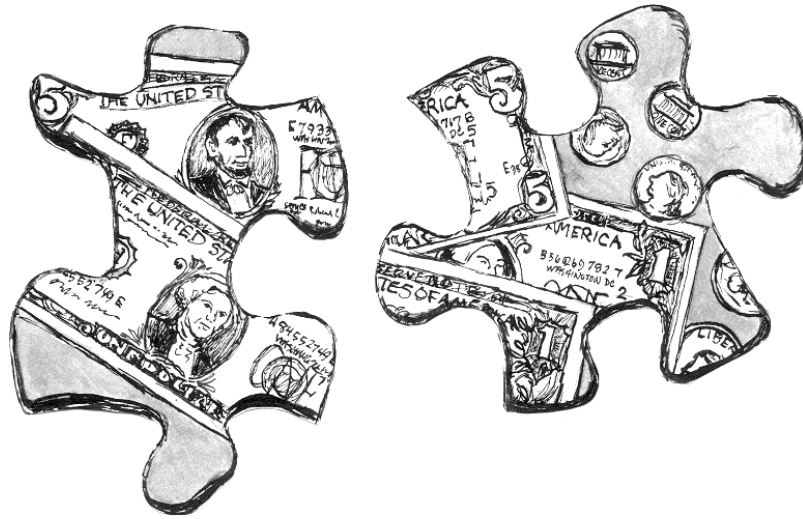


The Role of Money in an Economy



**A Staff Development and Teaching Module
for the Economics Strand**

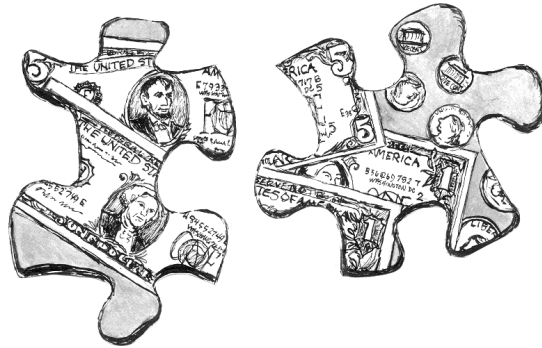
**History and Social Science
Standards of Learning
Grades K-5**

May 2000

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*Dennis Durost
Sue Meador Haley
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Andrea Nolley*

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Introduction

Virginia’s Standards of Learning (SOL) for kindergarten through fifth grade have a high proportion of economics content. However, many teachers haven’t had a great deal of exposure to content and teaching methods in elementary economics. These materials are designed to help classroom teachers to:

- ◆ understand the importance of students learning economics
- ◆ understand the role of money in an economy, as embodied in the K-5 History and Social Science Standards of Learning
- ◆ implement appropriate instructional strategies for teaching the relevant economic concepts
- ◆ identify resources available to assist with teaching the identified economics concepts, and
- ◆ learn how economics can be integrated with other core disciplines to enhance student learning and increase student retention of the content learned.

Each section of this guide begins with a “Content Briefing,” a guide to the important content that you should read before considering how to implement the concepts in your classroom. The briefing is followed by information on instructional strategies, brief activities, worksheets and transparency masters ready for use in your classroom. At the end of each section is a list of additional resources that you can use.

Fully detailed activities are listed in the additional resources. Within the body of this guide are some “hit-and-run economics” activities: quick things to do in a classroom without the extensive setup sometimes required by a full-length activity. (By the way, the “hit-and-run” terminology comes from baseball. In the baseball strategy called the “hit-and-run,” you get a quick start and swing at any pitch that comes your way. In a similar way, economics is often better understood by students if it’s taught in quick small sections rather than extended blocks.) Besides being short, the primary feature of the “hit-and-run” activities is that they have been customized to be directly applicable to the

Virginia SOL. They can easily become the core of longer and more ambitious units, but from the beginning their focus is on the Virginia standards (unlike some of the additional resources listed at the end of each section, most of which were prepared for national audiences).

Why Economic Education?

Why do we want elementary students to be learning economics at all? The question is a good one for those who think of economics as the study of making money, Wall Street and the stock market. Do we want third graders to learn how to do mergers?

Economics is not the study of making money, however. In fact, one of the best definitions of economics is

the study of choice under scarcity

with scarcity defined as

the inability to satisfy all wants at the same time.

In this light, it's important for elementary students to study economics. They face scarcity in their young lives, as they realize they can't satisfy all their wants at the same time. They can't have that new game and a new bicycle. They can't go over to play with a friend and finish their homework on time. Therefore they have to choose. By studying economics, they can learn to make better choices in their personal lives.

Every day young adults get into money trouble. They spend more than they earn, they go into debt, and they use credit irresponsibly. Some of them dig out of the difficulties, while others are forced into bankruptcy. If children learn about the responsible use of credit they can avoid these traps as young adults.

Beyond personal choices, the community must make choices. Whether the community is defined as local, state or national, no government can afford to satisfy all wants at the same time. Here the choices are collective and democratic rather than individual, but the need to choose is ever present. Students who have studied economics can be more responsible citizens as they participate and vote.

As students learn about economics, they will become more comfortable with the specialized vocabulary of choice

making. Terms like “scarcity” and “opportunity cost” are no more difficult to learn than the specialized vocabulary of other elementary school subjects. Experience shows that when the vocabulary words are introduced positively and then applied consistently in the classroom, students enjoy using these words. More importantly, as they use the vocabulary of economics, students will be learning to make better choices.

A Note About Virtual Economics

Many of the resources listed in this guide are available in *Virtual Economics*. *Virtual Economics* is a collection of lesson plans and teaching materials on a single CD-ROM disk that has been supplied to all public schools in Virginia. Version 1.0 of the program was provided in 1996; then, in January 1999, the Virginia Department of Education purchased and distributed copies of the updated Version 2.0 of the program to public school districts. This newer version is enabled to run over a Local Area Network (LAN). Whether by disk access to Version 1.0 or network access to Version 2.0, you should be able to get access to this resource. Usually, your librarian or media specialist will know about your school’s arrangements for access to *Virtual Economics*. The grant that provided the CD-ROM disk to all Virginia public schools also provided for training, and there are hundreds of teachers trained in the use of *Virtual Economics*. To find the person at your school, start with the person who was designated “SOL Training Initiative Coordinator,” beginning in January 1999 or later. If after checking local resources you need additional help with *Virtual Economics*, contact the Virginia Council on Economic Education (designated to offer training in the *Virtual Economics* grant) at (804) 828-1627 or <http://www.vcee.org> .

A Note About the Teacher Resource Guide

The content of this guide has been coordinated with the Virginia Department of Education’s *History and Social Science Standards of Learning Teacher Resource Guide*. The guide goes through, standard by standard, outlining the essential understandings, questions, knowledge and skills associated with each standard. The guide has been widely distributed and is also available at <http://www.pen.k12.va.us/VDOE/Instruction/History/guide/> .

Integration with Other Disciplines

If economics were always to be taught as a stand-alone subject, it would be hard to imagine fitting it into the already jam-packed elementary school day. With an appreciation of the fact that economics concerns choice under scarcity, however, you can see that economic concepts are everywhere and can be integrated with the teaching of other disciplines.

Some of the best children's literature, for example, concerns the choices that the characters make. These choices can be used to teach economics – and the other social sciences as well. Some of the best and most motivating math problems concern scarcity, choice and money. Some of the most interesting science problems have important relationships to scarcity and choice.

The Role of Money in an Economy was produced for the Virginia Department of Education and may be reproduced for educational purposes within Virginia classrooms. These materials are intended to be used with the accompanying video, *Money Matters: The Role of Money in an Economy*. We invite your comments and suggestions; please send them to:

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Section 1: Scarcity, Choice and Money

K.6

The student will identify basic economic concepts, including

- a. the difference between basic needs (food, clothing and shelter) and wants (luxuries)*
- b. the practice of exchanging money for goods*
- c. examples of people saving for the future.*

2.7

The student will identify examples of making economic choices and will explain what is given up when making a choice; distinguish between money and barter economies; and explain the differences between using cash, checks, and credit to purchase goods and services.

3.8

The student will explain in simple terms how opportunity cost, scarcity, and price influence economic decision making.

Content Briefing

In economics and in life, scarcity rules. Scarcity is *the inability to satisfy all wants at the same time*. Every person and every society faces scarcity.

Notice that scarcity doesn't just apply to material goods, but also to such valuable things as leisure time and clean air. Even a wealthy society such as ours doesn't always have as much of these less tangible things as we would want.

Many of your students have never directly faced the problem of scarcity and choice. For your more affluent students, that's obvious: What does Mom do when she runs out of milk? Why, go to the store and get more, of course! Such students don't directly confront scarcity and choice in their everyday lives.

The problem is present even for less affluent students, however. Although their household faces scarcity, these

students may have few household choices that they can make. That is, food may be tight and new clothing unheard of – but they're not asked to make any choices, just to live with the scarcity. For students from all backgrounds, therefore, it's important to acquaint them with scarcity and choice.

What's the alternative to teaching about scarcity and choice? If we shield students, they end up thinking they can always have everything they want, or can whine hard enough for. If we shield less affluent students from scarcity and choice, they may fall into thinking they have no choices – that they simply must do what they do, rather than choosing, for example, to further their educations or aspire to a better job.

The concept of opportunity cost goes hand in hand with scarcity and choice. Opportunity cost can be defined informally as “what you give up.” Every time you make a choice between one alternative and another, you give something up. “What you give up” represents the opportunity cost of the decision.

For example, if a second grader is told to pick a treat – ice cream cone or cookies – something must be given up. If that second grader chooses the cookies, the opportunity cost is an ice cream cone.

Academic economists sometimes expand on the definition of opportunity cost by saying it's “the benefit expected from the highest valued alternative forgone.” Still, that comes down to “what you give up.” A teacher keeps \$3000 in her mattress. Is there any cost involved in that action? Although we might say “no, there's no cost because she doesn't have to pay rent on her own mattress,” there is an opportunity cost. It's what she gives up. If she decides to keep the money in her mattress instead of leaving it in a savings account, the opportunity cost is the forgone interest that the \$3000 could earn if it weren't in her mattress. Another teacher who would spend the \$3000 if it weren't in his mattress gives up the benefits of having that item. In either case, opportunity cost is “what you give up.”

The most basic Standard of Learning calls for kindergarten students to distinguish wants from needs (K.6a). That's important because, even at this early age, students must learn that some desires are more important than others. The kindergartner's task is simple: Is a particular good something you need to live (a need) or is it something you could do without (a want)?

By the second grade, students' decision-making abilities should have matured somewhat, so that they can explain what is given up when making a choice (2.7). Now the choice is not so simple as "do you need it to live?" Instead, it's "what do you give up when you choose one thing over another?" Second graders are "thinking" opportunity cost even if they haven't heard the term.

In the third grade, students can learn to apply the term "opportunity cost" in their decision making. They will already have been "thinking" opportunity cost and now they apply the terminology. In the upper elementary grades, the history and social science SOL are focused on Virginia history, so further applications of scarcity, opportunity cost and choice will generally be focused on the historical material.

How does money fit in with scarcity and choice? Some students will identify money as a "need," and that's true to an extent. In a modern society we can't usually get our basic food, clothing and shelter by trading tobacco or bearskins. In another way, though, it's not the money that we ultimately need – it's the food, clothing and shelter.

Kindergarten SOL K.6.b says the student will identify basic economic concepts including "the practice of exchanging money for goods." People meet their needs, and satisfy some of their wants, too, by trading money for goods and services. In the second grade, students are asked to "distinguish between money and barter economies" (2.7). Students will be familiar with a money economy from growing up in one; the new concept will be a barter economy in which people trade goods directly for goods. As with scarcity and choice, the basic principles are covered early and are then focused on historical applications in Virginia in the upper elementary grades.

Instructional Strategies

To teach students about scarcity and choice, it is important that students actually make choices. This means that rather than just learning definitions or filling out worksheets, students make a choice among alternatives. The classroom teacher can help students learn the vocabulary by modeling its proper use.

For example: "We don't have enough time to finish our project and visit the book fair. We have a scarcity of time, don't we?" The usage is totally correct, because scarcity is the inability to satisfy all wants at the same

time. Whenever a teacher does joint decision-making with a class, it presents an occasion for helping students identify alternatives, consider the costs and make a decision. (“The book fair is only going on through this afternoon, and we can complete our project next week. We would give up going to the book fair if we stayed and finished this project now. The opportunity cost would just be too high.”)

To ensure that students actually make choices, many authorities recommend a scarcity activity. An example is included below. In scarcity activities, students are confronted with a situation of scarcity and asked to discuss and decide upon a solution. This can sometimes be difficult; one teacher brought in a cupcake and asked students to decide how it should be allocated. Some common suggestions were made (allocate by lottery, give everyone a small pinch, give it to the principal). After discussion a lottery was chosen, a winner was picked, and the winner ate the cupcake on the spot!

Obviously this was difficult for some of the students present. Each teacher has to decide what’s age-appropriate in an individual classroom. However, for a scarcity activity to really make an impression, it has to be a genuine scarcity situation. If a class decides that Pat gets the cupcake and then the teacher brings out a cupcake for everyone from a hidden drawer, the goal of teaching about scarcity can be subverted. On the other hand, few teachers would want to deal with the emotional trauma of a lucky winner eating a cupcake in front of the rest of the class, especially at the earlier grade levels.

Hit-and-Run Activities

⇒Activity

Activity 1: Wants vs. Needs

(SOL K.6.a; adaptable to grade K-adult)

MATERIALS: Requires nothing but a blackboard or overhead projector and screen. You may use a blank transparency or Transparency 1-1 at the end of this section.

SAY: For a little while, we're going to think about what we need. Raise your hands and as I call on you, tell me one thing that you need. I'll write these things up here where everyone can see them.

(If students are unsure about the role of criticism, SAY: **We're brainstorming. We're just going to make a big long list. We may change the list later, but for now we just want everyone's ideas.**)

Record the suggestions about needs, carefully refraining from any criticism. Some of the suggestions will be serious, such as food and water. Some will not be true needs, such as video games or candy. Keep writing down suggestions until there's no more room or students have run out of ideas. If the teacher has a favorite item, especially a frivolous non-need like a box of fancy chocolates, that might be a useful suggestion to add to the end of the list.

Then ASK: **Looking down this list, if there's one thing we could give up – one thing we don't really need – what would it be?** There will usually be one item on the list that decidedly is not a need and students will volunteer that it should be removed. Then ASK: **If we could give it up, is it really a need? Is it something we could do without?** If there is general agreement on an item, cross it out (but don't erase it).

ASK again: **Do we really need everything that is left on the list, or is there anything we could do without?** If there is general agreement on an item, cross it out too.

EXPLAIN (at about this point): **A need is something we must have, something we can't do without. There are lots of nice things we'd like to have. But if we can do without them, they aren't needs, they are wants.**

CONTINUE crossing out suggestions until you're down to what the class thinks they really couldn't do without. Generally that will be food, water, clothing and shelter (or a similar list).

OBSERVE that students don't need as much as they might at first think. Also comment on any obvious non-needs that students leave on the list (video games for some students, telephone for many in the upper elementary grades).

⇒Activity

Activity 2: A Scarcity Activity (SOL 3.8 ; adaptable to grade 3-adult)

MATERIALS: One chosen food item such as a cupcake; blackboard or overhead projector and screen; blank overhead transparency or Transparency 1-2 at the end of this section.

SAY: I have something nice here. How many of you would like to have one of these? (Show of hands.)

Well, I have bad news. I only have one of them, so we're going to have to decide what to do with it. We're going to take suggestions. We want to have a lot of ideas. Who has an idea?

Call on students and write their ideas on the board or overhead transparency. Answer any questions that students may have, such as: When do we get to eat it if we decide to share it?

ASK: Why do we have to make a decision? (Because there's not enough for everyone to have one.)

EXPLAIN: Sometimes we can't satisfy all our wants at the same time. We call that scarcity. Have you ever wanted something you couldn't have? Then you have faced scarcity. Scarcity is a big problem. All of us spend a lot of time trying to solve it.

SAY: Well, it's time to make a decision. Let's vote on what we're going to do.

Count votes and then implement the winning solution unless it breaks a school rule.

⇒Activity

Activity 3: Deciding on a Pet (SOL 2.7, 3.8 ; adaptable to grade 3-adult)

MATERIALS: Requires a small slip of paper and a pencil for each student as well as a blackboard or overhead projector and screen. You may use a blank transparency or Transparency 1-3 at the end of this section.

ASK: How many of you have pets at home? (Show of hands.)

SAY: Today we're going to think about how a family could decide on a pet. What do you think would happen if a family just bought the first animal it saw? Would that be a good idea? (Maybe not; the family might not get a suitable pet; the first animal it saw might be a horse, and they live in a small house. Discuss with students.)

SAY: Let's think about how a family could decide on a pet. I'm going to write down possible pets over here (Use the blanks in the left-hand column going down in Transparency 1-3. Later you will fill in the top-row blanks going across.) **What are some animals that would be good pets?** (Write down suggestions, such as "dog," "cat," and "goldfish.")

SAY: Now let's think hard. The good things about anything we do are benefits. The bad things are costs. What are the good and bad things about having a pet? (Lead discussion, then condense it into four categories, such as space, care, cost and love. Write those categories across the top of the table in Transparency 1-3.)

SAY: Now let's write down some things about all these different pets. We'll put down a plus sign (+) for anything good, a minus sign (-) for anything bad, and a zero for anything that's not really good or bad. (Here, zero means it doesn't have any impact – it's not good or bad.) For example, a cat doesn't take much space, so we'll put down a + sign for "cat" and "space." (With students, fill in the chart.)

ASK: If you could have two pets, which would you pick? Write down the words for your two pets on your slip of paper and hold on to it. (Allow time for writing.)

ASK: What two pets did you pick? (Discuss with some of the students).

ASK: Now, what if you had to pick just one pet? What would it be? Turn over your slip of paper and write down one pet. (Allow time for writing.) What pet did you pick? If you had to pick just one pet, which one would you give up?

EXPLAIN: When you pick something, you make a choice. Your first choice is what you think is best. What you give up is your opportunity cost.

Transparency Masters
Transparency Master 1-1



Write down the things we need. Make a long list, and include all suggestions!

Now go back to the list and look at it. Are there some things on it we could do without? If so, cross them out.

A need is something we must have, something we can't do without.
Everything else we would like to have is a want.

One Class's Version of Transparency 1-1



Write down the things we need. Make a long list, and include all suggestions!

Food
A house
Clothes to wear
Water
Air
Car
Doctors
Medicine
Schools
Books
TV
Telephone
Heavy Coats
Shoes
Video Games
Place to Play

Now go back to the list and look at it. Are there some things on it we could do without? If so, cross them out.

A need is something we must have, something we can't do without.
Everything else we would like to have is a want.



Transparency Master 1-2

What can we do? We only have one of these. We must decide what to do with it. Make a long list, and include all suggestions!

Why do we have to make a decision?

We are facing scarcity. That is the inability to satisfy all wants at the same time.

Let's vote and see how we want to deal with scarcity.



One Class's Version of Transparency 1-2

What can we do? We only have one of these. We must decide what to do with it. Make a long list, and include all suggestions!

Lottery

Everyone gets a small bit

Need – whoever needs it the most

First person in line tomorrow morning

Give it to the principal

Writing contest

Running or athletic contest

Hide and seek

Why do we have to make a decision?

We are facing scarcity. That is the inability to satisfy all wants at the same time.

Let's vote and see how we want to deal with scarcity.

Transparency Master 1-3

In the top row list what you'd consider in choosing a pet ↓

↑ In the first column list the possible animals that could be a pet.

Then fill in each square with a plus sign (+), a minus sign (–) or a zero. For example, if the first pet is a cat and the first column is “space,” put in a + because cats don’t require much space.

One Class's Version of Transparency 1-3

In the top row list what you'd consider in choosing a pet ↓

	<i>space</i>	<i>care</i>	<i>cost</i>	<i>affection</i>
<i>cat</i>	+	0	0	+
<i>dog</i>	—	—	—	+
<i>fish</i>	+	—	0	—
<i>snake</i>	+	+	0	—
<i>no pet</i>	+	+	+	—



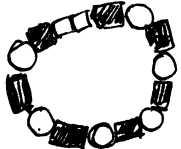







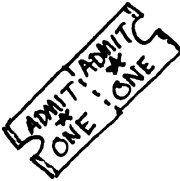


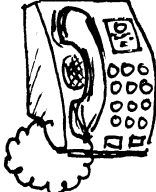


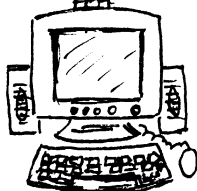



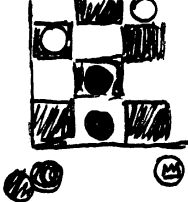



↑ In the column above list the possible animals that could be a pet.

Then fill in each square with a plus sign (+), a minus sign (—) or a zero. For example, if the first pet is a cat and the first column is “space,” put in a + because cats don’t require much space.

Worksheet 1-1

Name _____




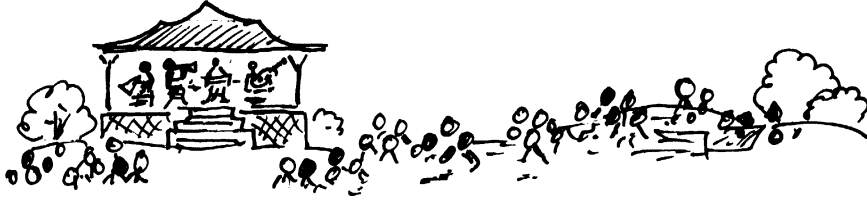

Look at the pictures below. Draw a circle around everything that is a need.
Cross out everything that is a want, not a need.

				
Boom box	Water	Bracelet	Video game	Skates
				
Food	Magazine	TV	Trading cards	Baseball
				
Movie ticket	Mountain bike	Swimming pool	Telephone	Clothing
				
Doll	Computer	Video	Canned drink	Golf club
				
Board game	Shelter	Dog	Model spaceship	Stuffed animal

Worksheet 1-2

Name _____

Decide whether there is or is not scarcity in each of the following pictures:

<input type="checkbox"/> Scarcity <input type="checkbox"/> Not Scarcity	 <p>Mrs. Wall's class has to decide whether to go to a concert or a museum on a field trip because there is not time to do both.</p>
<input type="checkbox"/> Scarcity <input type="checkbox"/> Not Scarcity	 <p>Todd says, "Take all the leaves you want for your garden, Elizabeth. I have just raked them up and I have more than I can get rid of."</p>
<input type="checkbox"/> Scarcity <input type="checkbox"/> Not Scarcity	 <p>Donna says, "We do not have enough construction paper to finish our bulletin board. What can we do?"</p>
<input type="checkbox"/> Scarcity <input type="checkbox"/> Not Scarcity	 <p>Brandon says, "Anyone who wants can come to hear the concert in the park. There is plenty of room for everyone on the grass."</p>
<input type="checkbox"/> Scarcity <input type="checkbox"/> Not Scarcity	 <p>Rosa has to decide whether to continue with basketball or soccer because the teams practice and play at the same time.</p>

Additional Resources on Scarcity and Choice

Online resources

Lesson (Grades 1-3): *If you Give a Mouse a Cookie*
Concepts: scarcity, goods, services, language arts
From *Economics and Children's Literature*
<http://ecedweb.unomaha.edu/lessons/mouse.htm>

Lesson (Grades 1-3): *Busiest People Ever*
Concepts: unlimited wants, goods, services, language arts
From *Economics and Children's Literature*
<http://www.umsi.edu/~econed/busiestpeople.htm>

Printed lesson plans

Lesson (Grades K-3) *Lesson 1: If You Give a Mouse a Cookie*
Concept: economic wants
From *Economics in Children's Literature Supplement 3* (St. Louis: SPEC Publishers, 1998). (SPEC Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)

Lesson (Grades K-3) *Picking Apples*
Concepts: wants, needs
From *Kids Town Club* (Lawrence, KS: University of Kansas Center for Economic Education, 1992, viewable but not printable in *Virtual Economics*)

Lesson (Grades K-2): *Wants from A to Z!*
Concepts: scarcity, economic wants
From *Master Curriculum Guide in Economics: Teaching Strategies K-2* (New York: National Council on Economic Education, 1992, viewable and printable in *Virtual Economics*).

Lesson (Grades 1-3) *The Country Mouse and the City Mouse*
Concepts: scarcity, land use (geography)
From *Economics and Children's Literature* (St. Louis: SPEC Publishers, Inc., 1993, viewable but not printable in *Virtual Economics*). (SPEC Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)

Video Resource (with printed teacher's guide and accompanying lesson)

Lesson (Grades 1-4, but adaptable for K) *Lesson 1: Scarcity* From *Econ and Me* (Video series: Agency for Instructional Technology, 1989). Series description: Children learn how to work through economic problems guided by a friend that only they can see, Jeremiah E. Connery, who is known as "Econ" for short.

Note: Virginia was part of a consortium that funded production of *Econ and Me*. As part of the consortium, the state received a license to copy and distribute *Econ and Me* for educational use. Copies are available at many school and district media centers. In addition, school divisions may get new copies of the *Econ and Me* videotapes for the cost of blank tapes plus shipping. The contact for this service is Jim Calleran at the Virginia Department of Education, (804) 225-2972.



Section 2: Functions of Money

K.6

The student will identify basic economic concepts, including

b. the practice of exchanging money for goods.

1.12

The student will simulate the exchange of money for goods and services and will identify ways to save money.

2.7

The student will identify examples of making economic choices and will explain what is given up when making a choice; distinguish between money and barter economies; and explain the differences between using cash, checks, and credit to purchase goods and services.

3.8

The student will explain in simple terms how opportunity cost, scarcity, and price influence economic decision making.

Content Briefing

Money is so familiar to us that often we don't think about exactly what it is and what its functions are. Money is also so familiar to us that we can forget what it's like to learn about money for the first time.

In economics, money is "anything commonly accepted in exchange for goods and services." Notice that this definition focuses on a major function of money – that it must be accepted as a means of payment. In fact, there are three major functions of money:

- ♦ It serves as a *medium of exchange*, or a means of payment. Anything that people decide to use as money

can serve as money. In a stable economy such as ours, government-issued money is universally used. In times of change and uncertainty, other things can be used as money – such as tobacco in the early history of the Virginia colony. (See section 5 for a more complete account of money in Virginia’s history.)

- ◆ It serves as a *store of value*, or a means of saving up purchasing power. Anything non-perishable could serve as a store of value; people could save gold or dried apples instead of money, for example. However, money has the unique property of being ready to spend at the owner’s discretion. Saving via gold or dried apples – or anything that’s not money – would be less convenient.
- ◆ It serves as a *unit of account*, or a convenient unit for measurement. In a barter economy where people trade goods for goods without using money, prices are difficult to determine. How much babysitting should a babysitter trade for having the lawn mowed? Is a mowed lawn worth two hours of babysitting, three hours, or some other amount? When babysitters and people who mow lawns charge money prices, the problem is solved. When a \$5/hour babysitter pays \$20 to get a lawn mowed, the money prices show us how four hours of babysitting are equivalent to one lawn mowed.

Kindergarten students’ understanding of money is necessarily limited. They learn that people get the things they need and want by trading money for them (K.6.b). In the first grade, this understanding is to be extended to the specific role of money as a medium of exchange (1.12) The second grade standard calls for a greater understanding of money that includes money vs. barter and the different types of exchange including cash, checks and credit transactions (2.7). In the third grade SOL on economic decision making (3.8), students will use money as a unit of account in considering purchasing decisions. The fourth and fifth grade standards treat money in historical context; to meet them, students need no additional content matter in money but instead will transfer their understanding of money to the history of Virginia and the United States.

Instructional Strategies

The Standards of Learning envision a hands-on treatment of money in the early grades. SOL 1.12, for example, says that the student “will simulate the exchange of money for goods” – taking part in a simulation rather than just hearing about the role of money.

Having students use money, whether it’s play money or real money, can accomplish a number of instructional objectives while building life skills. Many primary teachers already plan a field trip to a bank or other financial institution each year; this field trip can provide a focal point for instruction on money.

Some teachers have their students design their own classroom currency. If you do this, you’ll need to make a decision on whether to have students use a template – say, a piece of paper lined off to make rectangular bills. If you use a template, you limit students’ creativity in choosing shapes and sizes of currency. However, using a template does make for more uniform bills better suited to copying and paper-cutting, while leaving students free to exercise creativity within the rectangular boundaries of the bills.

Some teachers have had success tying an in-class behavior reward system to an in-class currency. Students are given units of the in-class currency for being in their seats on time, doing assigned class duties and for similar desirable behaviors. Students can, at specified intervals, redeem the monetary units for specified rewards – sometimes goods (such as pencils or stickers), sometimes services (computer game time, for example).

Money Template

On the next page is a template for money design, six bills to a page. This is a convenient size for duplicating and handling. The thin lines between the bills are for using a paper cutter to cut apart the finished bills.

One common way of creating a classroom currency is to have a money design contest. If you have your students do this, it usually works best to have them include three copies of the smallest denomination and then three more of the larger bills on that one page. (You will find yourself using more small denomination bills for purchases and making change.)

Hit-and-Run Activities

➡Activity

Activity 1: Money or Not Money (SOL 1.12, adaptable to grades K-4)

MATERIALS: Transparency 2-1, overhead projector and screen.

SAY: Money is what we use to pay for things. Money is “anything that’s commonly accepted in exchange for goods and services.” We’re going to have a look at some pictures and ask whether the picture shows something that is – or isn’t – commonly used as money.

DISPLAY Transparency 2-1. Then point to each of the pictures and have the class reach consensus on whether the picture represents something that is *money* or *not money*.

ASK: Does something have to be money to be something you want? (No.) Is there anything you would like up there that isn’t money? What is it? (Pizza, baseball cap, various answers.) Do we call something “money” just because it’s something good? (No.) When do we call something money? (When it can be used to pay for things.)

SAY: The major kinds of money are paper money, coins and checkbook money. You can use them to pay for things, and that makes them money.

ASK: Is it a good idea to spend all the money you have? (No.) What can you do with money that you don’t spend? (Hold onto it, save it).

ASK: Where could you keep money that you were saving? (Piggy bank, bank, etc.)

SAY: There are many ways for people to save money and many places, including banks, that they could keep it.

➡Activity

Activity 2: Money vs. Barter

(SOL 2.7, adaptable to grades 2-5)

MATERIALS: Barter cards, one per student, reproduced on card stock from Card Master 2-1.

SAY: A long time ago before people had money, they traded with each other to get the things they wanted and needed. It took a lot of work. If a shoemaker needed food, for example, that shoemaker might have to hunt around and find somebody who had food and needed shoes.

ASK: Do you think that would be a good way to find food? (Probably not; might not quickly find anyone who needed shoes; shoemaker couldn't eat shoes.)

ASK: If somebody works making shoes today, how does that person get food? (Gets paid for making shoes, uses the money to get food.)

SAY: When people trade goods with each other – but without using money – that's called "barter." We're going to see how barter might work. I'm going to give each of you a card that says what you have to trade and what you would trade for.

PASS OUT Barter Cards, one to a student. (Note: Students will not actually trade the cards. A barter system makes it extremely difficult to arrange trades, as students will see if they follow this exercise.)

ASK one student: Please read your card aloud to us.

Student READS (For example): "I have 1 pig and would like to trade for 20 chickens or money."

ASK: Is there anyone in the class who has 20 chickens? Please read your card.

Student READS: I have 20 chickens and would like to trade for 300 apples or money.

ASK: What's the problem with these two people trading? (One doesn't want what the other person has.)

ASK: Is there any way that these two people could make a trade? (Sell the pig for money, then use the money to buy the chickens.)

ASK: While we're thinking about it, if you wanted apples today, what would you take to the grocery store? (money)

ASK: Look at your cards, then raise your hands for this: How many people in the class want to trade for chickens? (One or two) **Now raise your hands for this: How many of you would be willing to trade for money?** (Everyone, usually).

SAY: In a barter economy, people trade goods with each other – but without using money. In a money economy like we have today, people trade for money. They work for money and they sell things for money. Then they use money to buy what they want and need. They don't have to worry about what the store owner wants or needs today – the store owner will always accept money.

Transparency Master






















Transparency Master 2-1

Look at each of the pictures. If the picture shows something that is money, write Money over it. If the picture shows something that is not money, cross it out.

				
Quarter	Canned Drink	Pizza	Baseball Cap	House
				
Car	\$1 Bill	Bicycle	Cookies	Shoes
				
Baseball Card	\$5 Bill	Postage Stamp	Socks	Jersey
				
Pencil	Computer	Telephone	Penny	Cash Register
				
Chair	Helmet	Check	Broccoli	Book

Think: Which of the items on the worksheet would you like to accept in a trade?

ANSWERS to Transparency Master 2-1








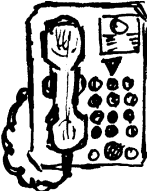

<p>Money</p>  <p>Quarter</p>	 <p>Canned Drink</p>	 <p>Pizza</p>	 <p>Baseball Cap</p>	 <p>House</p>
 <p>Car</p>	<p>Money</p>  <p>\$1 Bill</p>	 <p>Bicycle</p>	 <p>Cookies</p>	 <p>Shoes</p>
 <p>Baseball Card</p>	<p>Money</p>  <p>\$5 Bill</p>	 <p>Postage Stamp</p>	 <p>Socks</p>	 <p>Jersey</p>
 <p>Pencil</p>	 <p>Computer</p>	 <p>Telephone</p>	<p>Money</p>  <p>Penny</p>	 <p>Cash Register</p>
 <p>Chair</p>	 <p>Helmet</p>	<p>Money</p>  <p>Check</p>	 <p>Broccoli</p>	 <p>Book</p>

Note: All of the items crossed out are “Not Money.” The only close call is the postage stamp. It is not generally acceptable in exchange for goods and services, so it is not money. In other ways, however, it is more like money than the other items listed. It is issued by the government and it represents value. Still, it’s not a medium of exchange.

Worksheet 2-1
















Name _____

Look at each of the pictures. If the picture shows something that is money, write Money over it. If the picture shows something that is not money, cross it out.

				
Quarter	Canned Drink	Pizza	Baseball Cap	House
				
Car	\$1 Bill	Bicycle	Cookies	Shoes
				
Baseball Card	\$5 Bill	Postage Stamp	Socks	Jersey
				
Pencil	Computer	Telephone	Penny	Cash Register
				
Chair	Helmet	Check	Broccoli	Book

When you are done, put your pencil down. Then think: Which of the items on the worksheet would you like to accept in a trade?

Card Master 2-1

<p>I have 1 pig and would like to</p>  <p>trade for 20 chickens or <u>money</u>.</p>	<p>I have 20 chickens and</p>  <p>would like to trade for 300 apples or <u>money</u>.</p>	<p>I have 300 apples and</p>  <p>would like to trade for 200 loaves of bread or <u>money</u>.</p>
<p>I have 200 loaves of bread</p>  <p>and would like to trade for a winter coat or <u>money</u>.</p>	<p>I have a winter coat and</p>  <p>would like to trade for 3 pairs of boots or <u>money</u>.</p>	<p>I have 3 pairs of boots and</p>  <p>would like to trade for 1 pig or <u>money</u>.</p>
<p>I have 10 long-sleeve shirts</p>  <p>and would like to trade for 7 pairs of pants or <u>money</u>.</p>	<p>I have 7 pairs of pants and</p>  <p>would like to trade for 3 pairs of boots or <u>money</u>.</p>	<p>I have 3 pairs of boots and</p>  <p>would like to trade for 60 pairs of socks or <u>money</u>.</p>
<p>I have 60 pairs of socks</p>  <p>and would like to trade for 10 sweatshirts or <u>money</u>.</p>	<p>I have 10 sweatshirts</p>  <p>and would like to trade for 8 jackets or <u>money</u>.</p>	<p>I have 8 jackets</p>  <p>and would like to trade for 15 baseball caps or <u>money</u>.</p>
<p>I have 15 baseball caps</p>  <p>and would like to trade for 12 pairs of running shoes or <u>money</u>.</p>	<p>I have 12 pairs of running shoes and would like</p>  <p>to trade for 10 pairs of shorts or <u>money</u>.</p>	<p>I have 10 pairs of shorts and would like to trade</p>  <p>for 10 long-sleeve shirts or <u>money</u>.</p>

Additional Resources on Functions of Money

Online resources

Dawn's Virtual Currency Collection

Collection of pictures of U.S. currency, organized in several different ways. Suitable for downloading and use in in-class projects.

<http://www.drbanks.com/currency/>

Bureau of Engraving and Printing – Kids Section
Website for kids (and teachers) maintained by the government agency that prints our currency.

<http://www.bep.treas.gov/kids/index.cfm>

Video resource

Trade-Offs Lesson 9: Why Money? A video lesson on how money is used, starting with a series of clever scenes in which a girl makes multiple trades to get what she wants. In the second half of the video, a shopkeeper explains money and transactions – not as entertaining as the first half.

(Bloomington, Indiana: Agency for Instructional Technology, 1978. Note: Virginia was part of a consortium that funded production of *Trade-Offs*. As part of the consortium, the state received a license to copy and distribute *Trade-Offs* for educational use. Copies are available at many school and district media centers. In addition, school divisions may get new copies of the *Trade-Offs* videotapes for the cost of blank tapes plus shipping. The contact for this service is Jim Calleran at the Virginia Department of Education, (804) 225-2972.)

Printed lesson plans

Lesson (Grades K-3): *The Purse*

Concepts: money, goods, services, price, income, markets, opportunity cost

From *Economics in Children's Literature Supplement 3* (St. Louis: SPEC Publishers, 1998).

(Note: This lesson includes two activities and a template for making "Story Bucks," a simulated currency. SPEC

Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)

Lesson (Grades 1-3): *Round and Round the Money Goes*
Concepts: barter, specialization, monetary exchange
From *Economics and Children's Literature 1994 Supplement* (St. Louis: SPEC Publishers, Inc., 1994).
(SPEC Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)

Lesson (Grades K-2): *Birthday Barter*
Concepts: economic wants, money, exchange (trade), barter
From *Master Curriculum Guide in Economics: Teaching Strategies K-2* (New York: National Council on Economic Education, 1993; viewable and printable in *Virtual Economics*).

Lesson (Grades K-2): Lesson 2: *What is Money?*
Concepts: allowance, coins, opportunity cost, paper money, the value of money
From *Pocketwise: Personal Finance Economics, K-2* (New York: National Council on Economic Education, 1996, viewable and printable in *Virtual Economics*).



Section 3: Time and Money

K.6

The student will identify basic economic concepts, including

c. examples of people saving for the future.

1.12

The student will simulate the exchange of money for goods and services and will identify ways to save money.

2.7

The student will identify examples of making economic choices and will explain what is given up when making a choice; distinguish between money and barter economies; and explain the differences between using cash, checks, and credit to purchase goods and services.

2.8

The student will compare different ways that money can increase in value through savings and investment (e.g., bank savings accounts, investments in stocks and bonds, and investments in real estate and other valuable goods).

4.3

The student will explain the economic, social, and political life of the Virginia colony, with emphasis on c. the role of money, banking, saving and credit in colonial Virginia.

4.6

The student will trace the history of Virginia in the 20th century, with emphasis on:

d. the role of money, banking, saving and credit in contemporary Virginia.

5.6

The student will describe growth and change in America from 1801 to 1861, with emphasis on e. the development of money, saving and credit.

Content Briefing

Two simple facts underlie the Standards of Learning on saving:

1. People who save early and regularly assure themselves of a measure of financial success, while providing a source of financial capital to the economy.
2. People who don't save at all find it very difficult to improve their financial position.

In recognition of these facts, the SOL stress the importance of saving, beginning at a very early age. Saving is important both to individuals and to the economy. At the kindergarten level, students are expected to identify examples of people saving for the future (K.6.c). First graders should be able to identify ways to save money (1.12), but they are not expected to grasp the idea of interest or the return to saving.

The second grade standards call for an understanding of the fundamentals of using credit (2.7). Second graders should learn to identify credit as the practice of buying a good or service and paying for it later. They should also be able to compare different ways that money can increase in value through savings and investments (2.8); this standard specifically lists the examples of bank savings accounts, investments in stocks and bonds, and investments in real estate and other valuable goods.

As with other economics standards, the fourth and fifth grade standards break little new ground in content, but instead call for application of general social studies knowledge to the history of Virginia and the United States. Standards 4.3c and 4.6d specifically call on fourth graders to understand "the role of money, banking, saving and credit" in colonial Virginia and in contemporary Virginia. Fifth graders are called on to understand the development of money, saving and credit in America up to the time of the Civil War (5.6e).

One important challenge in teaching about saving is conveying to students the importance of saving early, but doing this without the aid of decimal multiplication. This section includes some examples that can be used in the early grades, employing tables that have already done the decimal multiplication for students. *The skill specifically being taught is how to read and interpret tables*, but the exercises can be used to help reinforce the importance of saving early.

The principle underlying the emphasis on saving early is *compound interest*: the fact that over time, saved money earns interest, and then additional interest is earned – both on the initial sum saved and on the interest earned earlier. In other words, there is “interest” and there is “interest on interest.”

For example, when money grows at 7 percent per year, \$100 becomes \$107 in a year. By the end of the next year, the money will have grown – not just to \$114, but to \$114.49. Why? Because 7 percent interest was again earned on the original \$100 saved, but 7 percent interest was also earned on the \$7 of interest from the first year. Although 49 cents may not seem like much, the effect snowballs as the years go by.

It takes less than 11 years, in fact, for a sum of money to double if it is growing at 7 percent per year! The original \$100 grows as follows:

Start:	\$100.00
After 1 year:	\$107.00
After 2 years:	\$114.49
After 3 years:	\$122.50
After 4 years:	\$131.08
After 5 years:	\$140.26
After 6 years:	\$150.07
After 7 years:	\$160.58
After 8 years:	\$171.82
After 9 years:	\$183.84
After 10 years:	\$196.71
After 11 years:	\$210.49

Although you *won't* do the math with elementary students, it's important to understand the principle. It's one reason the Standards of Learning try to encourage attitudes toward saving at an early age.

Instructional Strategies

Students live in a culture that encourages them every day to consume, but seldom points out to them the importance of saving. This cultural bias against saving is only reinforced by the natural tendency of elementary school children to have what economists refer to as “short time horizons”: Many children are interested in what they can have *now*, and the idea of being rewarded for deferring their gratification is alien.

However, the task is not hopeless. Note that the Standards of Learning don’t call for changed *attitudes* toward saving on the part of children, only a change in *knowledge*. Getting students to think carefully about the consequences of saving and not saving can do them a real favor, later in life, when they seriously confront questions of credit and saving.

Several strategies will help in getting students to consider savings possibilities:

- ◆ In “spending choice” activities, try to include *not spending at all* as one of the possibilities. If the complete set of choices seen by students doesn’t include saving, then students will get the unintended message that they shouldn’t save. The hit-and-run activity below includes saving as a possible choice when students are considering how to pay for purchases.
- ◆ Be aware of the free-spending incentives that are built into classroom currencies that have an expiration date. For example, if you have a unit in which students can use the classroom currency to buy small items or privileges, that unit will someday end. As the end approaches, some of your more strategic students will start spending like crazy – realizing there’s nothing to save the money for. Some teachers counter this trend by having a unit-closing auction of donated or purchased items. That way students have a final event to save for. The end of such a unit would also be a good time to remind students that in real life, we keep saving our money because there’s no preset date on which it will expire. (A good writing assignment is to ask for a

paragraph on how the classroom economy is different from the real-world economy.)

- ◆ Students in the earlier grades will see saving and investment primarily from an individual point of view. They can learn how saving now leads to greater rewards later *to individuals*. In the fourth and fifth grades, students can begin to see that the individual act of saving has important implications for society – mainly through studying history. The fundamental point is that either an individual or a society that consumes all it has (doesn't save) can't prosper.

Hit-and-Run Activities

➡Activity

Activity 1: Activity: Cash, Check or Credit

(SOL 2.7, adaptable to grades 2-5)

MATERIALS: Overhead projector and screen, transparency 3-1, copies of worksheet 3-1 (one per group).

SAY: Now we're going to think about the different ways that we can pay for things.

DISPLAY Transparency 3-1.

SAY: We might pay for things with cash, checks or credit.

EXPLAIN advantages (benefits) and disadvantages (costs) of cash, checks and credit on Transparency 3-1.

SAY: Now we're going to decide how to pay for some things – or whether to buy them at all. When you're done, your group will need to tell us what your choices are.

ASSIGN students to groups.

DISTRIBUTE copies of Worksheet 3-1.

MONITOR groups as they compare ways of paying for things.

SAY: We will hear now from each group. Tell us how you decided to pay for these purchases and why. (Get responses for first example from each group before moving on. Continue until all examples have been covered.)

COLLECT worksheets.

SAY: Sometimes the best way to buy something will be cash. Sometimes it will be a check or credit. Sometimes it might be best not to buy something – if you don't need it or really want it.

➔Activity

Activity 2: The Gift

(SOL 2.8, adaptable to grades 2-5)

(Students discuss alternative ways to save a gift.)

Adapted from “All Savings Choices Involve Risk: Grandma’s Gift,” Lesson 12 in *Learning from the Market: Integrating the Stock Market Game Across the Curriculum* (New York: National Council on Economic Education, 1997).

SAY: Today we’re going to think about getting a very nice gift, \$1000 from a kind relative. The \$1000 is yours to keep on one condition: You can’t spend it for two years. Until then you have to save it.

ASK: Is two years a long time to hold onto the money without spending it? (Yes, most students will say)

SAY: Let’s think about the different places where we might put the \$1000.

DISPLAY Transparency 3-2. Lead a discussion, reading the good and bad points about each possible way of saving.

SAY: Now we’re going to make some decisions. Each group will talk about possibly saving the money in a piggy bank. But each group will also think about some other way of saving the money. It will be different for each group. The first group will compare the piggy bank against a real bank. The second group will compare the piggy bank against investment in stock, and so on. When you’re done, your group will need to tell us what your choice is.

ASSIGN students to groups.

DISTRIBUTE worksheets.

MONITOR groups as they compare their alternatives.




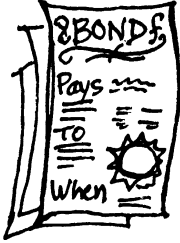
SAY: Now we’ll hear from each group. Tell us where you decided to save your \$1000 and tell us why.

Transparency Masters



Transparency Master 3-1: Cash, Check or Credit?

	Cash (paper and coin)	Check	Credit
Benefits	<ul style="list-style-type: none">♦ Accepted♦ Convenience♦ Time saving♦ Can't spend more than you have	<ul style="list-style-type: none">♦ Security♦ Convenient for large amounts♦ Good for record-keeping	<ul style="list-style-type: none">♦ Delayed payment♦ Convenience, especially when traveling♦ Good for record-keeping
Costs	<ul style="list-style-type: none">♦ Insecure (easily lost or stolen)♦ Have to plan big purchases	<ul style="list-style-type: none">♦ Takes time♦ Not accepted everywhere	<ul style="list-style-type: none">♦ Not accepted everywhere♦ Easy to overspend

Transparency Master 3-2: Places to Keep Your Money

<p>Piggy Bank</p> 	<ul style="list-style-type: none"> ♦ Container with a slot for money ♦ Doesn't have to be in the shape of a pig ♦ Put money in to save it ♦ Take money out when you are ready to spend ♦ Easy to get to ♦ Money might be lost or stolen
<p>Bank Savings Account</p> 	<ul style="list-style-type: none"> ♦ <i>Bank</i> safely keeps people's money ♦ Go there with your money to save it ♦ Go there to take money out when ready to spend ♦ Bank adds money called <i>interest</i> ♦ Safe, but not easy to get to ♦ Money protected against being lost or stolen
<p>Investment in Stock</p> 	<ul style="list-style-type: none"> ♦ Business can offer a chance to share in the money it makes ♦ People buy <i>stock</i> in the company ♦ If the company does well, they'll get money back – maybe a lot of money ♦ If the company does badly, those who have stock may lose their money ♦ Have to sell stock to take your money out
<p>Investment in bonds</p> 	<ul style="list-style-type: none"> ♦ Sometimes businesses borrow money and pay it back ♦ When they pay it back, they add money called <i>interest</i> ♦ Interest pays you for letting them use your money ♦ A business that borrows your money gives you a piece of paper called a <i>bond</i> ♦ Bonds are safer than stocks but not as safe as money in the bank ♦ Have to sell your bond or wait until it matures to get your money

(Transparency 3-2, part 2)

<p>Investment in real estate</p> 	<ul style="list-style-type: none">◆ People can use money to buy buildings and land (<i>real estate</i>)◆ Get money by selling or renting real estate to other people◆ Real estate can become more valuable over time◆ Have to sell real estate to get your money out◆ Selling can take a long time
<p>Other valuables ("collec- tibles")</p> 	<ul style="list-style-type: none">◆ Spending now to get money back later is <i>investing</i>◆ People invest in everything from jewelry to Beanie Babies®◆ They have to handle the collectibles with care (not use or play with them) if they want to sell them later◆ No guarantee that you will make money in this way◆ Have to sell to get your money out

Worksheet 3-1: Cash, Check or Credit?

Names _____

Here are some possible spending decisions. In each case, your group should decide whether cash, a check or credit should be used – or whether the purchase should be made at all. Be prepared to say why you made each choice.

<ul style="list-style-type: none"><input type="checkbox"/> Use cash or coin.<input type="checkbox"/> Use a check.<input type="checkbox"/> Use credit.<input type="checkbox"/> Don't buy.	Sam's mother is getting ready to pay the month's rent and wants a written record that she paid.
<ul style="list-style-type: none"><input type="checkbox"/> Use cash or coin.<input type="checkbox"/> Use a check.<input type="checkbox"/> Use credit.<input type="checkbox"/> Don't buy.	Chris wants to buy a sports drink at the store after baseball practice.
<ul style="list-style-type: none"><input type="checkbox"/> Use cash or coin.<input type="checkbox"/> Use a check.<input type="checkbox"/> Use credit.<input type="checkbox"/> Don't buy.	Pat's father is thinking about buying a new business suit with money that will be coming in next week, but the suit is on sale and the sale ends this week.
<ul style="list-style-type: none"><input type="checkbox"/> Use cash or coin.<input type="checkbox"/> Use a check.<input type="checkbox"/> Use credit.<input type="checkbox"/> Don't buy.	Terry is thinking about buying a new kind of athletic shoes at the mall. Someone he doesn't like at school just got a pair, and he has to stay even.
<ul style="list-style-type: none"><input type="checkbox"/> Use cash or coin.<input type="checkbox"/> Use a check.<input type="checkbox"/> Use credit.<input type="checkbox"/> Don't buy.	Kemper's family is planning a vacation trip to Florida but doesn't want its money to be lost.
<ul style="list-style-type: none"><input type="checkbox"/> Use cash or coin.<input type="checkbox"/> Use a check.<input type="checkbox"/> Use credit.<input type="checkbox"/> Don't buy.	Kelly's uncle is going to buy some magazines because Kelly is selling them to help her school.

Answers to Worksheet 3-1: Cash, Check or Credit?


Here are some possible spending decisions. In each case, your group should decide whether cash, a check or credit should be used – or whether the purchase should be made at all. Be prepared to say why you made each choice.

<input type="checkbox"/> Use cash or coin. <input type="checkbox"/> Use a check.* <input type="checkbox"/> Use credit. <input type="checkbox"/> Don't buy.	<p>Sam's mother is getting ready to pay the month's rent and wants a written record that she paid.</p> <p>Check best, to provide written record.</p>
<input type="checkbox"/> Use cash or coin.* <input type="checkbox"/> Use a check. <input type="checkbox"/> Use credit. <input type="checkbox"/> Don't buy.	<p>Chris wants to buy a sports drink at the store after baseball practice.</p> <p>Cash or coin good for a small purchase.</p>
<input type="checkbox"/> Use cash or coin. <input type="checkbox"/> Use a check. <input type="checkbox"/> Use credit.* <input type="checkbox"/> Don't buy.	<p>Pat's father is thinking about buying a new business suit with money that will be coming in next week, but the suit is on sale and the sale ends this week.</p> <p>Credit can take advantage of "buy now" (on favorable terms), "pay later."</p>
<input type="checkbox"/> Use cash or coin. <input type="checkbox"/> Use a check. <input type="checkbox"/> Use credit. <input type="checkbox"/> Don't buy.*	<p>Terry is thinking about buying a new kind of athletic shoes at the mall. Someone he doesn't like at school just got a pair, and he has to stay even.</p> <p>Revenge a poor buying motive.</p>
<input type="checkbox"/> Use cash or coin. <input type="checkbox"/> Use a check. <input type="checkbox"/> Use credit.* <input type="checkbox"/> Don't buy.	<p>Kemper's family is planning a vacation trip to Florida but doesn't want its money to be lost.</p> <p>Credit more secure; some students may know about travelers' checks, also a good choice.</p>
<input type="checkbox"/> Use cash or coin. <input type="checkbox"/> Use a check.* <input type="checkbox"/> Use credit. <input type="checkbox"/> Don't buy.	<p>Kelly's uncle is going to buy some magazines because Kelly is selling them to help her school.</p> <p>Check best to avoid having Kelly handle cash; provides written record.</p>

Worksheet 3-2: The Gift

Names _____

Your job is to compare two different ways of saving a \$1000 gift for two years. One choice is to put the money into a piggy bank. Write down the other choice that the teacher gives your group. Then discuss the two choices. Make notes below and prepare to make a decision on what to do with the \$1000.

Choice	Good things and bad things about the choice
<div>Piggy bank</div> <div></div>	
<div>(Write the other choice your group is to discuss on the line above.)</div>	

Additional Resources on Saving

Online resources

Lesson: *Kermit the Hermit*

Concepts: goods, services, choices, spending, saving, income, interest

Personal Finance Lessons in Children's Literature (Online)

<http://www.mmintl.org/resource/teachers/kermit/default.htm>

Lesson: *A Gift for Mama*

Concepts: income, saving, short-term goals

<http://www.mmintl.org/resource/teachers/mama/default.htm>

Lesson: *The Leaves in October*

Concepts: saving, income, spending, opportunity cost, interest

<http://www.mmintl.org/resource/teachers/leaves/default.htm>

Lesson: *The Berenstain Bears' Trouble with Money*

Concepts: spending, goods, services, income, saving, savings, interest

<http://www.mmintl.org/resource/teachers/bears/default.htm>

Wisepockets

A good web site on saving, with separate sections for children, parents and teachers ("The Wisepockets Schoolhouse.")

www.wisepockets.com

Printed lesson plans

Lesson (Grades 2-5): *Saving and Investing: Planning for the Future*

Concepts: saving, investment, income, consumption, opportunity cost, choice, productivity

From *Play Dough Economics* (Indianapolis: Indiana Department of Education, 1990; viewable and printable in *Virtual Economics*).

Lesson (Grades K-3) *Lesson 14: Alexander, Who Used to Be Rich Last Sunday*

Concepts: spending, saving, opportunity cost, money, banks, interest

From *Economics and Children's Literature – Supplement 3* (St. Louis: SPEC Publishers, Inc.: 1998) (SPEC Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)

Lesson (Grades K-2) *Lesson 9: Budgeting is a Way to Plan for Saving*

Concepts: bank, budgeting, choice, saving, spending, money, scarcity

From *Pocketwise: Personal Finance Economics, K-2* (New York: National Council on Economic Education, 1996, viewable and printable in *Virtual Economics*).

Lesson (Grades K-3): *Lesson 1-3: A Chair for My Mother*

Concepts: human resources, wages, saving income

From *Economics and Children's Literature* (St. Louis: SPEC Publishers, Inc.: 1993, viewable but not printable in *Virtual Economics*). (SPEC Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)



Section 4: Taxes and Government Services

3.9

The student will explain the relationship between taxation and government services.

4.6

*The student will trace the history of Virginia in the 20th century, with emphasis on
e. the types of taxes collected and the types of services provided by each level of government.*

5.3

*The student will describe colonial America, with emphasis on
d. the principal economic and political connections between the colonies and England.*

Content Briefing

People do many things for themselves, but there are also many things that we do through government. Because of scarcity there aren't enough resources to satisfy all wants at the same time – and that includes our wants for privately provided and governmentally funded services.

Taxes are *money paid to the government to provide services*. Taxes do two important things: (1) *Taxes transfer resources*; and (2) *Taxes influence behavior*. They transfer resources, in that once they're collected they can be spent so that resources otherwise available to households will be spent for governmental purposes. They influence behavior, in that people anticipate taxes and try to arrange things so that they can pay the smallest amount possible. (This is part of the rationale for taxing tobacco and alcohol. These are taxes that raise money, to be sure, but they may also discourage smoking and drinking.)

The Standards of Learning do not call for extended study of taxes or government spending in the early grades. However, beginning with third grade they call for students to

develop an increasingly sophisticated understanding. Third graders should be able to “explain the relationship between taxation and government services” (3.9). Fourth graders are called on for a more detailed understanding, in that they are to explain the types of taxes collected and the types of services provided by each level of government. Fifth graders then apply concepts of taxation as they explain the tight political and economic control that Britain maintained during the United States’ colonial period (5.3 d).

Beginning at an early level, students can understand that “the government” isn’t some distant entity. In a real sense, “the government” is us. We vote and participate in order to achieve things together that we couldn’t achieve on our own, such as building interstate highways or establishing a system of courts.

The economic application, particularly in SOL 3.9 (“explain the relationship between taxation and government services”), is that the government’s resources are our resources. Specifically, government doesn’t have any magic way of getting resources out of thin air; they have to come from somewhere. Any resources the government uses have to come from households in one of three ways:

- ◆ The government can use taxation to get resources from households for government-adopted programs.
- ◆ The government can borrow money and issue bonds so that the money can be paid back later.
- ◆ The government can simply create new money (“printing \$100 bills”) and use it to get resources from households.

There are costs and benefits for each of these routes. Taxing causes the impact to be felt now, and this may be appropriate for programs that have benefit right now, such as road maintenance and police protection. Borrowing money adds to government debt but, in some ways, spreads out the burden over time. This may be appropriate for programs with a long-lasting impact such as building new schools and roads. Creating new money looks costless, but if the government creates too much money then inflation is the inevitable result. (In recent U.S. history it is difficult to find good examples of dramatically excessive money creation, but in Revolutionary War times too many Continentals were produced and during

the Civil War the Confederacy produced too many Confederate dollars. In both cases inflation resulted).

There are two major competing methods of allocating a tax burden: the *benefit principle of taxation* and the *ability-to-pay principle of taxation*. Although these principles will not necessarily be identified by name to elementary students, the students are capable of grasping the basic concepts.

The *benefit principle* of taxation says that those who benefit from government programs should pay the taxes. It is most often applied to programs in which identifiable people benefit. The clearest example of the benefit principle may be the fee a family pays to enter a National Park. The family benefits and the family pays. This fee is actually a form of tax, although many people would not at first think of it as a tax.

The *ability-to-pay principle* says that those who have the most ability to pay should pay the taxes – regardless of how much or how little they benefit. This principle is most often applied to general government functions such as national defense. It's hard to identify just who benefits from any given military force, for example, so the burden is allocated based on ability to pay. Income taxes are based on ability to pay, with those receiving higher incomes paying higher taxes – and higher percentages of income.

In either case, the challenge to law writers is figuring out how to assess payments. So often, legislators can't say directly who benefits from a government policy so the benefit principle can't help them write tax law. When they base taxes on ability to pay, they face the complication that there are many different measures of ability to pay. Fairness in taxation is an easy goal to state, but it is hard to achieve in practice.

Instructional Strategies

The basic idea of taxation, getting money to provide government services, can be understood at all elementary levels. It is easy to see that taxes involve paying money to the government, but it takes some effort to see that transferring resources rather than money is the ultimate goal.

SOL 4.6e calls on students to understand “the types of taxes collected and the types of services provided by each level of government.” In part, mastering this standard depends on recognizing the different ways that our levels of government measure ability to pay:

- ◆ The federal government depends heavily on income taxes, in which income is the measure of ability to pay. It depends less on taxes on specific goods (excise taxes).
- ◆ The state government depends on income taxes also, but additionally on sales taxes, in which the amount someone spends (consumption) is the measure of ability to pay.
- ◆ Local governments depend mainly on property taxes, in which the value of property owned is the measure of ability to pay.

With all these measures of ability to pay, there is a possibility of mistakes. For example, the property tax assumes that someone with a lot of property is able to pay – but what if the property owner is a retired person with lots of property but little cash income? As another example, the sales tax uses spending as ability to pay – but taxes a thrifty wealthy person (who doesn't spend much) very little at all, while levying a heavy burden on a poor household that has to spend all it makes meeting living expenses.

Your instructional strategy should help students understand that there is no such thing as a perfect tax. No tax is successful in simply transferring resources from individuals to governments without side effects and issues of fairness.

Hit-and-Run Activities

➞Activity

Activity 1: Taxes and Spending: City Council's Dilemma

(SOL 3.9, adaptable to grades 3-5)

MATERIALS: Transparency 4-1, chalkboard or overhead projector and screen.

SAY: Today we're going to work on the relationship between taxation and government services.

ASK: Can you name some of the services that are provided by governments? What do our governments do? (Provide roads, schools, space program, etc.)

ASK: If the government is getting ready to build a school, how do you think it will get the concrete for the floor? Will a government official just walk up to the concrete company and demand the concrete? (No, the government will pay.)

ASK: If the government pays for concrete, how will it get the money to make the payment? (It will collect taxes.) (Some students will think the government just prints money any time it needs it. Local and state governments can't do this at all; it's not easy for even the federal government under current institutions.)

SAY: We're all going to simulate being on City Council. What do you think the City Council could do if it counted up its tax money and found that it didn't have enough to do everything it planned? (Raise taxes, cut spending, etc.)

DISPLAY Transparency 4-1.

SAY: Here is a list of things that City Council could do if its taxes came up \$1 million short. We're going to get into groups and each group will need to make a decision. Look at the different things City Council

could do and talk them over in your group. Then be prepared to show the rest of the class what you decided, and to explain why.

SEND students to groups.

MONITOR groups' activities.

RECONVENE class and ask for reports.

SAY: We have seen how hard it can be to make decisions.

ASK: Why did City Council have to make a decision at all? Why couldn't it just "do nothing"? (Because it didn't have enough money to meet its budget.)

SAY: When we participate in government and do things through government, money is often required. The government can't just wave a magic wand and make the money appear. We have just seen how government spending has to be paid for, and how a government might have to cut back or raise taxes if it didn't have enough money.

➡Activity

Activity 2: Pick a Tax (SOL 4.6e, adaptable to grades 4-5)

MATERIALS: Transparencies 4-2 and 4-3, chalkboard or overhead projector and screen.

SAY: Today we're going to take on the role of legislators in Richmond trying to decide how certain projects should be funded in Virginia.

ASK: What do we call the part of the government that meets in Richmond to make laws? (The General Assembly).

SAY: When the General Assembly wants something done on behalf of Virginians, it has to come up with the money from somewhere. Let's see where the money can come from.

DISPLAY Transparency 4-2

SHOW students the types of taxes and types of services provided.

SAY: Now we're going to get into groups and try to decide how to pay for some of these services. Notice that your choices will be:

- ◆ **Use the local property tax.** This means asking local governments to get money by charging a tax on the land, homes and business buildings that people own.
- ◆ **Use the state sales tax.** This means charging a tax that gets added on at the cash register whenever something is sold.
- ◆ **Use the state income tax.** This means charging a tax on the money that people earn during the year.
- ◆ **Ask for a federal excise tax.** This means asking our representatives in Congress to seek a

nationwide tax on products like cigarettes or gasoline.

- ◆ **Ask for federal income taxes to be used. This means asking our representatives in Congress to place taxes on the money that people earn during the year, nationwide.**
- ◆ **Don't do the spending project at all. Elected representatives may decide that some projects simply aren't worth spending the public's money. They can decide not to use tax money at all for these projects.**

DISTRIBUTE copies of Worksheet 4-2.

SAY: Now in your groups, take on the roles of legislators in Richmond and make a decision on each of these projects. Then we will get back together and see what you decided.

MONITOR students as they work in groups.

ASK for student presentations and collect worksheets.

SAY: Different taxes are used for different purposes at the local, state and federal levels. Today we have seen the kinds of decisions that have to be made in the General Assembly when people ask for projects to be funded.



Transparency Masters
Transparency Master 4-1
Taxes and Spending: City Council's Dilemma

City Council has just discovered that it will collect \$1 million less in taxes than it had planned. Somehow the \$1 million must be made up. Below are City Council's alternatives. What should City Council do?

Cut police funding	Reduce the number of police officers on duty, particularly in the early morning hours Monday through Thursday, when few calls come in.
Cut park funding	Reduce the hours that city parks and recreation centers are open; cancel repairs on park buildings; cancel "Saturday in the Park" concert series that had been free to the public.
Cut school funding	Delay roof repairs at middle schools; cancel scheduled improvements of computer labs and purchases of video equipment for classrooms.
Cut road funding	Delay road improvement projects, reduce budget for snow and ice removal from city streets, delay reconstruction of downtown bridge.
Cut fire-rescue funding	Delay purchase of new fire truck and equipment; allow total number of fire and rescue workers to decline by 1 when a firefighter retires.
Raise taxes	Increase taxes on houses, apartment buildings and land enough to make city revenue go up by \$1 million.

Transparency Master 4-2
Pick a Tax

Table: Types of Taxes Collected and Types of Services Provided

	Local Government	State Government	Federal Government
Type of Tax	♦ Property tax	♦ Sales tax ♦ Income tax	♦ Excise tax (Examples: cigarettes, gasoline) ♦ Income tax
Services Provided	♦ Public schools ♦ Public libraries ♦ Local streets ♦ Police and fire departments	♦ State colleges/ universities ♦ State highways ♦ Aid to local schools	♦ Interstate highways ♦ National defense

*Source: Grade 4 Virginia Studies: 1607 to Present Teacher Resource Guide
(Richmond: Virginia Department of Education, 1999), p. 36*

Transparency Master 4-3: Pick a Tax

Choices for Paying for Proposed Projects

<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax.<input type="checkbox"/> Don't do the project at all.	Virginia legislators believe that the Interstate Highway system should be repaired and improved all the way up and down the East Coast.
<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax<input type="checkbox"/> Don't do the project at all.	The City of Roanoke wants to build a new park with play equipment, picnic shelters and a community center close to the Roanoke River.
<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax<input type="checkbox"/> Don't do the project at all.	Virginia Tech wants to build a new classroom building to handle the increase in students.
<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax<input type="checkbox"/> Don't do the project at all.	The City of Fairfax would like to increase its number of public library computers and videos for checkout.
<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax.<input type="checkbox"/> Don't do the project at all.	A group of Virginians proposes having a statewide "Past Fads Festival" in honor of Barney the Dinosaur, Power Rangers, and other past fads.

Worksheet 4-2: Pick a Tax

Names _____

Choices for Paying for Proposed Projects

<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax.<input type="checkbox"/> Don't do the project at all.	Virginia legislators believe that the Interstate Highway system should be repaired and improved all the way up and down the East Coast.
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<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax<input type="checkbox"/> Don't do the project at all.	The City of Fairfax would like to increase its number of public library computers and videos for checkout.
<ul style="list-style-type: none"><input type="checkbox"/> Use local property tax.<input type="checkbox"/> Use state sales tax.<input type="checkbox"/> Use state income tax.<input type="checkbox"/> Ask for federal excise tax.<input type="checkbox"/> Ask for federal income tax.<input type="checkbox"/> Don't do the project at all.	A group of Virginians proposes having a statewide "Past Fads Festival" in honor of Barney the Dinosaur, Power Rangers, and other past fads.

Answers for Transparency Master 4-3: Pick a Tax

Choices for Paying for Proposed Projects

<ul style="list-style-type: none"> <input type="checkbox"/> Use local property tax. <input type="checkbox"/> Use state sales tax. <input type="checkbox"/> Use state income tax. <input type="checkbox"/> Ask for federal excise tax.* <input type="checkbox"/> Ask for federal income tax.* <input type="checkbox"/> Don't do the project at all. 	<p>Virginia legislators believe that the Interstate Highway system should be repaired and improved all the way up and down the East Coast.</p> <p><i>A federal project, possibly with federal income tax financing or excise tax financing (on gasoline).</i></p>
<ul style="list-style-type: none"> <input type="checkbox"/> Use local property tax.* <input type="checkbox"/> Use state sales tax. <input type="checkbox"/> Use state income tax. <input type="checkbox"/> Ask for federal excise tax. <input type="checkbox"/> Ask for federal income tax <input type="checkbox"/> Don't do the project at all. 	<p>The City of Roanoke wants to build a new park with play equipment, picnic shelters and a community center close to the Roanoke River.</p> <p><i>Local project with local benefits; some would favor state funding.</i></p>
<ul style="list-style-type: none"> <input type="checkbox"/> Use local property tax. <input type="checkbox"/> Use state sales tax*. <input type="checkbox"/> Use state income tax*. <input type="checkbox"/> Ask for federal excise tax. <input type="checkbox"/> Ask for federal income tax <input type="checkbox"/> Don't do the project at all. 	<p>Virginia Tech wants to build a new classroom building to handle the increase in students.</p> <p><i>Statewide benefits; state sales or income tax are both logical possibilities.</i></p>
<ul style="list-style-type: none"> <input type="checkbox"/> Use local property tax*. <input type="checkbox"/> Use state sales tax. <input type="checkbox"/> Use state income tax. <input type="checkbox"/> Ask for federal excise tax. <input type="checkbox"/> Ask for federal income tax. <input type="checkbox"/> Don't do the project at all. 	<p>The City of Fairfax would like to increase its number of public library computers and videos for checkout.</p> <p><i>Local project with local benefits.</i></p>
<ul style="list-style-type: none"> <input type="checkbox"/> Use local property tax. <input type="checkbox"/> Use state sales tax. <input type="checkbox"/> Use state income tax. <input type="checkbox"/> Ask for federal excise tax. <input type="checkbox"/> Ask for federal income tax <input type="checkbox"/> Don't do the project at all*. 	<p>A group of Virginians proposes having a statewide "Past Fads Festival" in honor of Barney the Dinosaur, Power Rangers, and other past fads.</p> <p><i>Perhaps best left undone.</i></p>

Additional Resources on Taxes and Government

Online resources

The Tax History Project

This is a nice site with lots of information on taxes in history, including a “tax history museum” with good material and useful illustrations. The Tax History Project is a division of Tax Analysts, a non-profit, non-partisan organization fostering open debate on federal, state, and international tax policy.

<http://taxhistory.tax.org/>

Tax Forms Resource Kit

You won’t be having elementary students fill out tax forms, but if you want some of them for bulletin boards or other display purposes they’re available in a resource kit on the Internet.

<http://www.irs.gov/plain/taxi/taxformkit.html>

You should also be aware that the Virginia Taxpayer Education Coordinator in Richmond can supply copies of the *Understanding Taxes* teaching kit. The kit includes five video lessons, transparencies, tax forms, and lesson plans. The address is 400 N. Eighth St., Room 564, Richmond, VA 23240; phone(804) 916-8917. That address is updated at <http://www.irs.ustreas.gov/plain/taxi/districtcoords.html>

Printed lesson plans

Lesson (Grades 3-4) *Lesson 8: Children in the Marketplace: A Board Game*

Concepts: marketplace, consumer, income, taxes, worker, producer, interdependence, citizen, exchange, goods, services

From *Children in the Marketplace* (New York: National Council on Economic Education, 1986, viewable and printable in *Virtual Economics*).

Lesson (Grades 4-6) *A Pocketful of Goobers: A Story About George Washington Carver*

Concept: tariff (tax on imports)

From *Economics and Children's Literature* (St. Louis: SPEC Publishers, Inc., 1993, viewable but not printable in *Virtual Economics*). (SPEC Publishers can be contacted at 1006 Regency Manor Dr., Ballwin, MO 63011 or at (636) 891-0043.)

Video resource

Instructional video: *Taxes in U.S. History*

Segment 1: *The Whiskey Rebellion: First Test of the Federal Power to Tax, 1794*

Concepts: taxation, government spending, federalism

(New York: Joint Council on Economic Education, 1990)

Videotape available at many media centers; teacher's guide viewable and printable in *Virtual Economics*. Tapes are also available from the Virginia Taxpayer Education Coordinator, 400 N. Eighth St., Room 564, Richmond, VA 23240; phone(804) 916-8917. That address is updated at <http://www.irs.ustreas.gov/plain/taxi/districtcoords.html>.

Note: This tape and accompanying lessons have been successfully used in the middle school setting. The tape itself is easily understood by upper elementary students, although the exercises in the teacher's guide are more suitable to middle and high school students.



Section 5: Money in Virginia's History

4.3

The student will explain the economic, social, and political life of the Virginia colony, with emphasis on
c. the role of money, banking, saving and credit in colonial Virginia.

4.6

The student will trace the history of Virginia in the 20th century, with emphasis on
d. the role of money, banking, saving and credit in contemporary Virginia.
e. the types of taxes collected and the types of services provided by each level of government.

5.3

The student will describe colonial America, with emphasis on
d. the principal economic and political connections between the colonies and England.

5.6

The student will describe growth and change in America from 1801 to 1861, with emphasis on
e. the development of money, saving and credit.

Content Briefing

Money has played an important role throughout Virginia's history, even from its beginning as a colony motivated by profit. The Virginia colony was established in 1607 by the Virginia Company of London as an economic venture. This was in contrast to other colonies founded for political or religious freedom.

As the colony grew, its interdependence with England developed. England depended on raw materials exported from the colonies, including Virginia, and the colonies

depended on imported manufactured goods from England. Ultimately, the strains of Virginia's status as a colony, along with conflicts over taxation and lack of representation in English government, would motivate Virginia to join the other colonies in fighting for independence from England.

Barter, or the trading of goods for goods, is universal in human experience. As long as people have had different tastes and have owned different resources, there have been reasons for them to trade. The Virginia colony was no different. However, barter is a difficult way to conduct trade. For A and B to trade, A has to have what B wants and has to want what B has. This means that, even when there is no government-issued money, there are reasons for people to seek a commonly acceptable commodity and use it for money.

Early trade between colonists and the American Indians was conducted using wampum (shell beads used as money). Wampum was valuable not because the recipient wanted to keep the shell beads, but because it could be traded for other valuable goods and services.

Another alternative for trade was to use the government-issued currencies of other nations, as occurred when trading ships stopped at the Virginia colony with European currencies. However, this was an irregular source of currency for the colony and could not be counted on for the routine money supply.

How do we know when a commodity has become money? It has become money if people accept that commodity in trade even if they don't plan to use it themselves. For example, a nonsmoker would gladly accept tobacco in the Virginia colony because it had value and came to be used as a form of money.

Economists point out that for a commodity to be useful as money, it must be scarce, portable, durable and divisible. Tobacco exhibited all four characteristics:

- ◆ It was scarce and commanded a premium price because of that scarcity.
- ◆ It was portable, in that significant amounts of purchasing power could be carried from place to place using tobacco.
- ◆ It was durable, in that it did not spoil with age if properly stored.

- ◆ It was divisible, in that (divided) small amounts of it were valuable.

Note that there were many other commodities in the Virginia colony that would not have served well as money, including sand (not scarce enough), logs (not portable enough), fish (not durable enough) or horses (not divisible).

Fourth graders are called on to understand “the role of money, banking, saving, and credit in colonial Virginia” (4.3c). Although all these functions existed, they were not centralized in banks because there were no banks in colonial Virginia. Banking functions were handled through a variety of informal arrangements. For example, people did save by putting money aside but did not have banks where the money could be left for safekeeping and to earn interest. Credit took the form of buying goods, but deferring payment until crops were harvested. Thus there was saving and credit, but not coordinated by a banking system.

In addition to understanding these functions for colonial Virginia, fourth graders also are asked to understand “the role of money, banking, saving and credit in contemporary Virginia” (4.6d). Virginia’s contemporary financial institutions are so thoroughly integrated with national capital markets that there’s little distinctively Virginian material to teach. However, students should understand that in Virginia, as in all states:

- ◆ There are three forms of money: paper, coin and checks.
- ◆ Credit amounts to borrowing money (buying now and paying later).
- ◆ Credit is commonly used to purchase goods and services.
- ◆ Banks lend money to consumers to purchase goods and services.
- ◆ Banks lend money to producers who start and operate businesses.
- ◆ Banks issue credit cards.
- ◆ Banks provide savings accounts and pay interest to savers.

- ◆ Banks provide checking accounts.

It is also true that technology and law are making it easier for non-bank entities, such as insurance companies and brokerages, to perform some or all of the functions of banks.

The fifth grade standards concentrate on colonial Virginia in the context of U.S. history. To meet Standard 5.3d, students must understand “the principal economic connections between the colonies and England,” a topic well covered in U.S. history materials. Standard 5.6e calls for students to describe the development of money, saving and credit in the U.S. from 1801 to 1861, again a topic well covered in U.S. history materials.

In Virginia and U.S. history, there is a tension between government-controlled money and the payment systems that sprang up in less stable times. Both the tobacco (commodity) money systems of the Virginia colony and the wildcat banking era systems of the 1800s were monetary systems built in less stable times than today. Today we have a national money supply controlled by the Federal Reserve System; in history we have had four types of money:

- ◆ Commodity money, in which one good or commodity comes to be used as money, with or without government sanction. This occurred in Virginia’s colonial period.
- ◆ Fully backed paper currency, in which paper money only represents a commodity such as gold and can be exchanged for that commodity at will.
- ◆ Fractionally backed paper currency, in which paper money circulates but does not have sufficient backing for it to be exchanged at will, particularly in a crisis.
- ◆ Fiat money, which has no physical backing at all, but instead depends on the credibility of the government and its acceptability in exchange to maintain its value. All U.S. currency today is fiat money.

Monetary history would be easier to teach if there had been a well-defined progression of money through these stages. In fact, the United States switched back and forth through all four stages. Some notable facts include the following:

- ◆ Commodity money circulated alongside currencies of other nations in the Virginia colony.
- ◆ The U.S. government issued more than \$450 million in unbacked paper currency (“greenbacks”) during the Civil War. It was, in effect, fiat money.
- ◆ In 1865, the federal government issued its first “Gold Certificate” notes, paper money that was fully backed by U.S. gold coinage. It circulated alongside greenbacks.
- ◆ William Jennings Bryan’s famous 1896 “Cross of Gold” speech, among other things, argued against a fully backed gold currency and in favor of expanded coinage of silver. A fully gold-backed currency would have hurt farmers and people with debts; Bryan warned, “. . . you shall not crucify mankind upon a cross of gold.”
- ◆ U.S. “Silver Certificates” circulated as late as 1963, offering to pay the bearer silver “on demand”; however, there was not sufficient silver on deposit to make the dollar a fully backed currency. The silver certificates have since been entirely replaced with Federal Reserve Notes, which make no claim about physical backing in gold or silver.

Interestingly enough, although today’s money is more stable than earlier paper currencies, that stability does not come from backing by physical assets such as gold. The U.S. gold supply is totally disconnected from the quantity of money and U.S. currency – while backed by the full faith and credit of the U.S. government – is not exchangeable by right for any other commodity.

Instructional Strategies

In teaching economic history Standards of Learning, Virginia teachers face a lack of Virginia-specific materials. In many cases, historical sources are sketchy on just how the economy of colonial Virginia worked. This lack of specific materials calls for teachers to follow several strategies:

- ◆ carefully use the Virginia-specific materials that are available
- ◆ adapt U.S. history materials as suitable

- ♦ occasionally make inferences based on general knowledge of colonial times.

Teachers using in-class simulated societies (some informal, some licensed such as Dr. Marilyn Kourilsky's Mini-Society™) have found it difficult to simulate the operation of historical societies. Students bring a great deal of common knowledge about their societies to ordinary simulated societies – but they lack the same kind of common knowledge about Virginia society from past centuries. Authenticity of simulated societies from history is therefore doubtful at best. Before the development of banks, how did early Virginians keep savings safe? How specialized economically were the early colonists, and how much of production took place within the household? There is a great deal that students just won't know – and, for that matter, a great deal that is not totally certain from the historical record.

Hit-and-Run Activities

➔Activity

Activity 1: The Money Committee (SOL 4.3; adaptable to grade 3-adult)

MATERIALS: One copy of worksheet 5-1 for each group; overhead projector or blackboard.

SAY: We don't have to make choices today about what we use for money. We already have a well-developed system of money, checks and credit. But in the Virginia colony, people did have to decide what to use for money. To think more about the choice, you're going to put yourselves into the position of the Virginia colonists in the 1600s and consider what should be used for money.

I will place you in groups and then let you think of different things that could be used for money. The only restriction is that anything you propose would have to have been available in the Virginia colony in the 1600s.

ASK: Can someone give me just one example of something that would be a possibility because the Virginia colonists did have it? (Examples would include corn, fish, and British currency)

ASK: Can someone tell me one thing that would not be a possibility because the Virginia colonists didn't have it? (ATM cards, Styrofoam)

SAY: For each possible money candidate, your group should work together to assign ratings. Your ratings will be a plus sign (+) where your money candidate does a good job, a minus sign (-) where it does a bad job and a zero (0) where it doesn't do an especially good or bad job. Your ratings will cover:

- ◆ scarcity (Is it scarce enough that it would be valuable as money, or is it something that's freely available everywhere and so won't work as money?)

- ♦ **portability (Is it easy to carry around for making transactions?)**
- ♦ **durability (Does it last, or does it wear out or go bad very quickly?)**
- ♦ **divisibility (Can it be divided up so that small items can be paid for?)**

You must work together as a group. When you are done, I would like for you to be ready to report three things to the class:

- 1. Your recommendation on what should be used for money.**
- 2. A “runner-up,” something that could be used for money if your first choice didn’t work.**
- 3. Your recommendation on what wouldn’t work at all for money. That is, you should come up with the *least* suitable item to use for money and let us know what that is, so that we’ll be sure not to choose it.**

SEND students to their groups.

MONITOR their activities to know when to call time.

ASK representatives of each group to make presentations.

CONDUCT A VOTE to choose what the money will be.

SAY: In most societies in history, people began to use money without any formal decisions. Today we have simulated what the Virginia colonists might have done, if they had gone through a formal process to adopt money. It’s likely that the colonists didn’t do what we did today – but they did find that money made it easier to buy and sell. When everyone would accept tobacco in payment for anything else, tobacco became money.

➡Activity

Activity 2: Wildcat Money (SOL 5.6; adaptable to grade 3-adult)

MATERIALS: Duplicated “Wildcat Dollars” from Card Master 5-1, duplicated “Wildcat Stuff” from Card Master 5-2; timer, bell or other device to signal end of trading period, two small prizes for game winners.

SAY: To better understand our system of money today, we can think about what it was like in the 1800s. At that time, private banks issued their own money. It circulated along with official government money. Banks were not as closely regulated as they are today. Banks issuing their own money were sometimes called “wildcat banks.”

ASK: If you had the chance today, would you rather have money printed by a private bank or money issued by the government? Why? *(Answers vary; some will say that government money is more likely to keep its value; others may think private bank money will be just fine.)*

SAY: Wildcat bank money worked fine until there was a panic. When the bank got in trouble, people began to wonder if their money would be worth anything. Many of them crowded into the bank to try to change their wildcat money for government-issued money. Sometimes the bank would close and the wildcat money would become worthless.

ASK: How would you feel if you suddenly found that your money had become worthless? *(Angry, helpless, disappointed, ready to retaliate against the bank.)*

SAY: In this game, you will be trading your Wildcat Dollars for Wildcat Stuff. When I give the signal, you will get out of your seats and negotiate to get the best deals you can. There will be two prizes at the end of the game in 10 minutes: One for the player with the most Wildcat Stuff cards and one for the player with the most Wildcat Dollars.

What's the catch? Really, there are two:

(1) You have to have at least one unit each of food, clothing and shelter to win. So, as you trade for Wildcat Stuff or try to get Wildcat Dollars, make sure you have at least one unit each of food, clothing and shelter.

and

(2) This timer (HOLD UP timer) is going to be running. If it rings before 10 minutes are up, the game stops immediately. All your Wildcat Dollars become worthless. Now there will only be one prize. It goes to the player with the most Wildcat Stuff – but remember, you can't win unless you have one unit each of food, clothing and shelter. The loss of value of money is like what would happen if real wildcat money in the 1800s became worthless.

DISTRIBUTE Wildcat Stuff and Wildcat Dollars, mixing it up so that students typically start out with: (1) the same amount of Wildcat Dollars, (2) the same number of Wildcat Stuff cards, but (3) at least one card for food, clothing or shelter lacking.

ASK for questions, ANSWER them, start the timer and SAY **“Go.”** [Note: It is important that students not be able to see how many minutes are left on the timer, just as wildcat bank customers could not know how long it would be until a wildcat bank failed.]

PLAY one or more rounds and AWARD prizes to winners.

ASK: What should you do in this game if you think the timer is about to ring? (Buy stuff, even at high prices, because the stuff will be valuable and the money won't.)

ASK: If you lived in the 1800s and thought the wildcat bank would soon fail, what would you do? (Try to get rid of the money and get stuff or better money that would hold its value.)

ASK: What do you think happens in foreign countries today when people begin to be afraid that the money is about to become worthless? (Try to get rid of the money and get stuff or better money that would hold its value.)

ASK: Why do some people in other countries want to have U.S. dollars instead of their own currency? (They think U.S. dollars will be more valuable than their own currency.)

Transparency and Card Masters
Transparency Master 5-1



Candidates for Money in the Virginia Colony

Write down all the teams' top suggestions for items to be used as money in the Virginia colony. Then write down the teams' ratings of each of these items for scarcity, portability, durability and divisibility. Use a +, - or 0 to rate each item. Discuss the overall suitability of each potential item to be used as money.

Items	Scarcity (not common)	Portability (carry)	Durability (last)	Divisibility (divide)

After the discussion, vote on which item is to be used as money.

One Class's Version of Transparency 5-1



Candidates for Money in the Virginia Colony

Write down all the teams' top suggestions for items to be used as money in the Virginia colony. Then write down the teams' ratings of each of these items for scarcity, portability, durability and divisibility. Use a +, - or 0 to rate each item. Discuss the overall suitability of each potential item to be used as money.

Items	Scarcity (not common)	Portability (carry)	Durability (last)	Divisibility (divide)
Sand	-	0	+	+
Logs	+	-	+	+
Gold	+(really, too scarce)	+	+	0
British money	+(really, too scarce)	+	+	+
Fish	-	0	-	-
Apples	-	0	-	0
Tobacco	+	+	+	+
Milk	+	0	-	+

After the discussion, vote on which item is to be used as money.

This group voted to use tobacco as money, with gold as runner-up. For "least suitable," this group picked "fish."

Card Master 5-1

(Included at the end of this document; go to the end and print there.)

Card Master 5-2

(Included at the end of this document; go to the end and print there.)

Worksheet 5-1



Names _____

Group Activity: Candidates for Money in the Virginia Colony

Write down all the teams' top suggestions for items to be used as money in the Virginia colony. Then write down the teams' ratings of each of these items for scarcity, portability, durability and divisibility. Use a +, - or 0 to rate each item. Discuss the overall suitability of each potential item to be used as money.

Items	Scarcity (not common)	Portability (carry)	Durability (last)	Divisibility (divide)

Finally, prepare to report three things to the class:

1. Your group's recommendation on what should be used for money.
2. A "runner-up," something that could be used for money if your first choice didn't work.
3. Your recommendation on what wouldn't work at all for money. That is, you should come up with the *least* suitable item to use for money and let us know what that is, so that we'll be sure not to choose it.

Additional Resources on Money in History

Online Resources

Lesson: (Upper elementary–high school, grade not indicated, but adaptable with good links to materials)

Lesson One: *Colonial Reaction To The Stamp Act*

Concepts: taxation, colonies, Stamp Act, Revolutionary War

<http://www.history.org/other/teaching/tchcrone.htm>

(Note: This is part of Colonial Williamsburg’s excellent site at www.history.org.)

Lesson: (Grade 5): *Can’t You Make Them Behave, King George?*

Concepts: opportunity cost, interdependence

http://www.mcps.k12.md.us/curriculum/socialstd/grade5/Cant_Behave.html

Money in North American History

This is a web reference to some good historical material on money in the colonies and, later, the United States.

<http://www.ex.ac.uk/~RDavies/arian/northamerica.html>

Printed lesson plans

Lesson (Grades 8-12, but with materials adaptable to grade 5, particularly SOL 5.3): *The Costs and Benefits of Independence*

Concepts: trade, taxation, costs, benefits

United States History: Eyes on the Economy, Vol. 1 (New York: National Council on Economic Education, 1993, viewable and printable in *Virtual Economics*)

Lesson (Grades 8-12, but with materials adaptable to grade 5): *Problems Under the Articles of Confederation*

Concepts: debt, tax, tariff, trade, currency

United States History: Eyes on the Economy, Vol. 1 (New York: National Council on Economic Education, 1993, viewable and printable in *Virtual Economics*)

Lesson (Grades 8-12, but with materials adaptable to grade 5): *Productivity Raises Output: The Cotton Gin*

Concepts: productivity, profit, standard of living, division of labor, specialization

United States History: Eyes on the Economy, Vol. 1 (New York: National Council on Economic Education, 1993, viewable and printable in *Virtual Economics*)

Unit (Grades 8-12, but with materials adaptable to grade 5, particularly SOL 5.6 – the “Quarter Back Game”): *Boom and Bust in the Early 1800s*

Concepts: incentives, profit, savings, investment, money, money supply, specialization and exchange, reserves, inflation, depression

United States History: Eyes on the Economy, Vol. 1 (New York: National Council on Economic Education, 1993, viewable and printable in *Virtual Economics*)

Glossary

Bank	A business that accepts deposits and makes loans.
Barter	The trading of goods directly for goods, rather than using money.
Bond	A financial asset consisting of a borrower's promise to repay money with interest. (The borrower is usually a government or corporation.)
Check	A written order directing a bank to make payment to a specified person or organization.
Choice	The act of selecting a particular item or course of action from a set of possible alternatives.
Competition	The situation in which more than one buyer or seller tries to purchase or provide similar kinds of goods or services.
Credit	An arrangement for delayed payment for a good or service (buy now, pay later).
Cost	The sacrifice incurred as a result of an action. (Often, but not always, measured in money.)
Currency	Paper and coin money issued by a government.

Demand	The different quantities of a good or service that will be purchased at various possible prices.
Economics	The study of choice under scarcity.
Good	Something tangible that people value.
Investment	A commitment of funds with the expectation of receiving a future return.
Market	Any arrangement that allows buyers and sellers to exchange goods and services.
Money	Anything commonly accepted in exchange for goods and services.
Opportunity Cost	In a choice, the benefit expected from the highest valued alternative forgone; or, “what you give up” when you make a choice.
Price	The amount of money paid or received in exchanging a good or service.
Real Estate	Land and all of the permanent structures on it.
Scarcity	The inability to satisfy all wants, or all competing demands, at the same time.
Service	An action that people value.

Stock	Ownership of a share in a corporation, with the associated right to receive a portion of profits as decided by the corporation's board of directors.
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Supply	The different quantities of a good or service that will be provided at various possible prices.
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Tax	Money paid to the government to provide services.
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About the Video

This Teacher's Guide is being distributed with a 50-minute training video, *Money Matters: The Role of Money in an Economy*. The video is intended to help teachers with the material by exhibiting models of good teaching of economics.

The five teachers on the film represent kindergarten and the first, third, fourth and fifth grades. Fourth and fifth grade teachers can benefit from seeing how the foundation can be laid in the teaching of primary-grade learning standards. A natural break occurs after the third grade segment, in which the tape can be stopped for discussion and reaction. Primary teachers also can benefit from the fourth and fifth grade segments by seeing how elementary economics principles are applied in those grades.

Although the five teachers on the tape use very different approaches and teaching strategies, they have the following elements in common:

- ◆ the learning style is active, involving the students, rather than passive.
- ◆ the teachers consistently use and reinforce economic vocabulary.
- ◆ the teachers draw together economics with other disciplines, particularly language arts, as the opportunity arises.
- ◆ the teachers have carefully prepared their activities before going into the classroom with them, and
- ◆ the teachers express a positive attitude toward economics and learning about economics.

On the next page is a chart that relates the segments of the video to the specific standards being taught.

We hope that this video is a real help to you as you work to integrate economics into your teaching.

William C. Wood

Teresa Harris, *producer*

Jeffrey Butler, *videographer*

Marilou Johnson, *narrator and script writer*

May 2000

Standards of Learning Directly Addressed in the Video *Money Matters: The Role of Money in an Economy*

Grade	Activity	SOL
K	<ul style="list-style-type: none"> ◆ Recognizing and naming the coins ◆ Children counting out pennies to buy their snacks 	Math K.9 K.6 exchanging money for goods
1	<ul style="list-style-type: none"> ◆ Literature from <i>Economics and Children's Literature</i> ◆ Brainstorming prior to field trip ◆ Sorting photographs after field trip 	1.9 human, natural, and capital resources
	<ul style="list-style-type: none"> ◆ Assigning jobs in the class factory ◆ Writing assignment after working in the factory ◆ Class discussion after working in the factory 	1.10 goods/services consumers and producers
	◆ Children's literature	1.11 limits affect choices
	◆ Making choices at the Oobleck Factory Store	1.12 exchanging money for goods
3	<ul style="list-style-type: none"> ◆ Quantity and cost of supplies at the warehouse ◆ Amount of business space ◆ Time to sell and buy/Partnerships 	3.8 scarcity
	<ul style="list-style-type: none"> ◆ Market surveys ◆ Competition for the same product ◆ Copyrighting similar products 	3.8 pricing
	◆ Market days	3.8 opportunity costs
	<ul style="list-style-type: none"> ◆ Paying/collecting taxes ◆ Running the simulated society 	3.9 taxation
4	◆ Paying monthly bills, paying off a mortgage, saving money from payday, paying off credit cards	4.3 money, banking, saving, credit
5	<ul style="list-style-type: none"> ◆ Legislators' Decisions: Funding Projects ◆ City Council's Dilemma: Taxes and Spending 	5.3 taxes and government services

Transparency Master 1-3

In the top row list what you'd consider in choosing a pet ↓

↑ In the column above list the possible animals that could be a pet.

Then fill in each square with a plus sign (+), a minus sign (–) or a zero. For example, if the first pet is a cat and the first column is “space,” put in a + because cats don’t require much space.

One Class's Version of Transparency 1-3

In the top row list what you'd consider in choosing a pet ↓

	<i>space</i>	<i>care</i>	<i>cost</i>	<i>affection</i>
<i>cat</i>	+	0	0	+
<i>dog</i>	-	-	-	+
<i>fish</i>	+	-	0	-
<i>snake</i>	+	+	0	-
<i>no pet</i>	+	+	+	-

↑ In the column above list the possible animals that could be a pet.

Then fill in each square with a plus sign (+), a minus sign (-) or a zero. For example, if the first pet is a cat and the first column is "space," put in a + because cats don't require much space.

Card Master 5-1



Card Master 5-2

