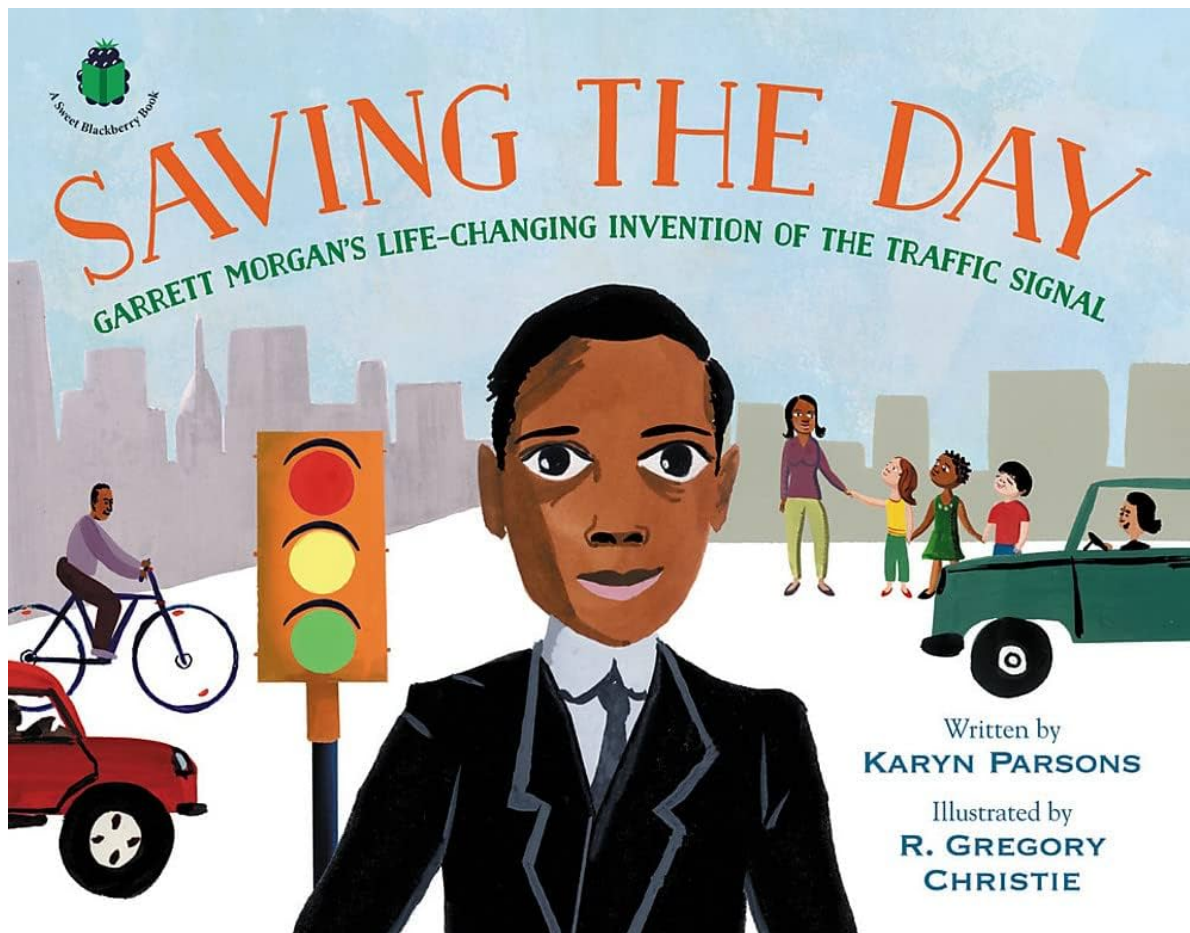


Saving the Day:

Using Children's Literature to Teach Human Capital, Public Goods, and Cost & Benefits



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Introduction

“Saving the Day: Using Children’s Literature to Teach Human Capital, Public Goods, and Costs & Benefits” is a teaching unit containing lessons developed by three economic educators, each representing a different state. Each lesson focuses on a different economic concept and supports state and national standards of learning.

Research has shown the validity of using children’s literature to teach in the content areas. Now that math and language arts are the primary focus of most curriculums, providing students with an engaging story that encourages them to relate to various concepts, improve their vocabulary, and develop reading and writing skills, is truly interdisciplinary instruction at its best.

The featured lessons are stand-alone and can be taught independently or as an instructional unit. They were developed for elementary classroom teachers but can be modified for use by resource teachers such as reading specialists, English as a second language instructors, librarians, and gifted education educators.

While human capital, public goods, and costs & benefits are the concepts featured in these lessons, enrichment and extension activities are also included. The discussion questions are provided for classroom use as well as to help the teacher reading the book to the students be aware of the story’s references to economic terms and entrepreneurial opportunities provided to the main character.

Each lesson includes a story synopsis, defined economic concepts, a structured lesson plan, an assessment, and cross-curricular enrichment activities. An annotated bibliography featuring little-known African American Inventors and Entrepreneurs is also provided. It is to be noted that these lessons and activities do not need to be taught in any specific order but are book dependent.

Lesson I

Saving the Day: Garrett Morgan’s Life-Changing Invention of the Traffic Signal

Author Karyn Parsons, Illustrator R. Gregory Christie
Little, Brown and Company, 2021

Human Capital

by Marsha Masters

INTRODUCTION: Human capital refers to the quality of labor resources, which can be improved through investments in education, training, and health. Investments in human capital are ways to “train your brain” to become more skilled, productive and successful at tasks. In this lesson, students will examine the human capital of Garrett’s family and then how he discovers and invests in his own human capital. Students will then categorize human capital that matches specialists in the community and evaluate their own human capital.

STORY SYNOPSIS: This picture book biography recounts the story of Garrett Augustus Morgan [1877-1963] who became a successful inventor and entrepreneur. Growing up in a large African American farming family, his parents recognized that his intellectual abilities needed to be addressed. He is sent to the city where he studies, works, and hones his skills. Taking advantage of his opportunities, he becomes a prominent business man and skilled inventor, producing the traffic signal, a gas mask, and the zigzag switch for the sewing machine.

TIME ALLOCATION: 30-35 minutes

MATERIALS:

- Book- *Saving the Day: Garrett Morgan’s Life-Changing Invention of the Traffic Signal* by Karyn Parsons
- Access to computer for website: <https://www.bls.gov/k12/students/careers/career-exploration.htm>
- Projection Device for website
- Activity: Carrer Cards & Clues Puzzle cards (Prepare in advance by copying and cutting apart)
- Red and green crayons (one per student)
- Red Light/Green Light formative assessment card (Copy one per student. Have students color one side red and one side green.)
- Assessment: One per student (answer key included)
- Optional: Extension Activities

OBJECTIVES:

- The student will listen to a story and determine the human capital traits of the Morgan family.
- The student will define human capital and demonstrate understanding of the concept by identifying human capital of specialists in the community.

ECONOMIC CONCEPTS:

- **Human Capital** – the package of talents, skills, education, experience, health habits, and attitudes each person has that enables them to be a productive worker.
- **Specialization** - a situation in which people produce a narrower range of goods and services than they consume. Specialization increases productivity.

NATIONAL CONTENT STANDARDS IN ECONOMICS

STANDARD 1: SCARCITY

Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

STANDARD 6: SPECIALIZATION

When individuals, regions, and nations specialize in what they can produce at the lowest cost and then trade with others, both production and consumption increase.

ARKANSAS STANDARDS:

E.1.2.3 Discuss knowledge, skills, education, and experience (i.e., human capital) that workers need for jobs.

E.1.3.3 Explain the relationship between knowledge, skills, education, and experience (i.e., human capital) to productivity.

E.1.4.3 Analyze how knowledge, skills, education, and experience (i.e., human capital) can impact productivity, career advancement, and potential income.

PROCEDURE:

1. Share with students that today they will listen to a book spotlighting the life of Garrett Morgan. All of Garrett’s siblings have special skills, attitudes, education, training, talents, and abilities. Garrett and his mom try to discover his special skills and talents that provide him with success because they know that will help them be productive in the future and possibly lead to a career. Challenge students to listen for each of the sibling’s special talents. Read the book to the students.

2. Introduce the concept of **human capital**. In economics, the term is used to describe skills, talents, education, experience, and abilities. As an example, ask students to consider a basketball player. What special human capital does a basketball player need for success? (Ex. TALENTS- good at dribbling, shooting, and guarding; EDUCATION- training camp, practice, watching others

play; ATTITUDES- determined, self-motivated, team player; EXPERIENCE-playing on teams from a young age; ABILITIES-athletic, good health)

3. Now ask students to identify the human capital of Garrett's siblings. (Ruth-fishing skills, Will- loves to bake, Lucille-studies the stars, Frank-special skills with tools and repairing things, and Minnie-vocal talents). Ask students what career interests Will might have using his human capital. (He might become a baker.) What career interests might Minnie pursue? (She might become a singer/ musician.) What career interests might Frank consider? (He might become a construction worker or a handyman on the farm.) Why would Minnie choose becoming a musician rather than a baker? (She has more human capital in music which would make her more productive and successful.)

4. Discuss with students the concept of **specialization**. When one specializes to do one task, they often concentrate their production of a good or service and depend on others in the marketplace to provide other goods and services. For example, if Minnie were to become a musician, she would probably not have time to bake, build, etc. She would depend on others to provide those goods and services.

5. Was Garrett skilled at working like Frank? (No.) What evidence do we have in the book? (He fell off all ladders, couldn't hammer a nail, and he was too weak to lift a pail.) Were there any clues of special skills and talents Garrett had before his parents sent him off to be tutored? (He was very creative, imaginative, and inventive.)

6. What did Garrett's mom and dad think would help him become ready for his future success? (They thought if he went to the city and was tutored, he would find his talents.) What did he discover about his human capital? (He learned through classes and tutoring. He also discovered passions. Garrett loved fixing sewing machines. He was creative and inventive. He was a problem solver.)

7. How can you discover what human capital is necessary for special careers? Take students to <https://www.bls.gov/k12/students/careers/career-exploration.htm> . Will loves to bake. Let's see what human capital might be important for a baker. Click on the FOOD tab and then baker. <https://www.bls.gov/k12/students/careers/career-exploration.htm> . (Salary may not be an important factor to consider when researching today because the focus is to discover human capital traits.)

What Bakers Do

Bakers mix ingredients according to recipes in order to make breads, pastries, and other baked goods.

Work Environment

Most bakers work in retail or commercial bakeries (manufacturing facilities), grocery stores or wholesale club stores, and restaurants. Work shifts often include early mornings, nights, weekends, and holidays.

How to Become a Baker

Although bakers typically need no formal educational credential, employers may prefer or require that candidates have a high school diploma. Some choose to attend a technical or culinary school. They typically learn their skills through on-the-job training, which may include participating in an apprenticeship program.

Based on these sections, what human capital seems important?

(Answers may include: Bakers like to cook, attend classes or culinary skills, and must be good at math/measuring. Bakers must be flexible in their work hours.)

8. Tell students they are going to have an opportunity to identify human capital traits of specialists through a fun activity. Divide the class in half. One half of the class will receive career cards. One half will receive clues. Ask the career card students to hold up their card. The clue card students will read their card and find their match. Both students must agree. Allow time for students to then share with the class. Challenge students to identify the human capital skills they found in the puzzle.

- Clue 1: I study hard to keep people's teeth pearly white and help them have a healthy bite. (dentist-human capital-lots of study, likes working with people)
- Clue 2: Working outside with animals and crops gives me pride...on a tractor I might ride. (farmer-human capital- know how to care for animals, like working outside, know how to ride a tractor)
- Clue 3: I like to draw and create buildings, offices, and schools. I use software, paper, pencil and a blueprint as a rule. (architect-human capital-artistic, creative, trained to use software)
- Clue 4: I love keeping animals healthy of all size. I have attended school for many years to make me pet wise. (veterinarian-human capital-lots of education, like animals)
- Clue 5: I like to entertain using my feet. People attend my performances by often reserving a seat. (dancer-human capital-good health, coordinated, like to perform in front of audiences)
- Clue 6: I use paint, canvas, and an easel each day. Finish a piece, and consumers will pay. (artist-human capital-artistic, creative)
- Clue 7: I love sports, or so it seems! I also like training student athletes to work together on an award-winning team. (coach-human capital-knowledge about sports and the rules, knows how to teach players, works well under pressure)
- Clue 8: Keeping patients healthy is my work all day. I check your temperature, weigh you, and encourage you to stay active and play. (nurse-human capital-knows how to read tools, likes working with people, trained to know about health)
- Clue 9: I wear a uniform and a helmet that is bright. I face flames, hose in hand, with all my might. (firefighter-human capital-brave, trained, strong)

- Clue 10: I work hard to keep my community safe and sound. To uphold the law, I am bound. (police officer-human capital-trained, brave, make decisions under pressure)
- Clue 11: I like to read and share book ideas with many. If you want to borrow a book, I have plenty. (librarian-human capital-reader, likes to help others, organized)
- Clue 12: Helping get goods to the market is what I do each day. I have been trained to drive big vehicles and that is how I earn my pay. (truck driver-human capital-good driver, able to see well, training to drive big vehicles)
- Clue 13: I take lots of classes to help keep your money safe and develop a plan. When you need a loan or advice, I am available. Helping you would make my day! (banker-human capital-good at counting money, customer service skills, skills to know about banking)

FORMATIVE ASSESSMENT:

Red Light/Green Light:

Distribute a red light/green light card. Allow time for students to color one side red and one side green. They should then fold the sheet in half so that one side shows red and the other green. Tell students that now is the time to show what they have learned. Each time a statement is read, students will show one side of their card. If the student agrees with the statement, they will show the green light. If they disagree, they will show the red light. (As an extension, students could create their own statements for the class.)

1. Artists need to be athletic to do their job. (red light)
2. Human capital includes your skills and abilities to do your job. (green light)
3. To be a baker, you should have a passion for food, good at baking, and be able to measure. (green light)
4. Minnie was good at fishing in the book. (red light)
5. Math is an important skill for a banker. (green light)
6. All specialists require the same human capital. (red light)

ASSESSMENT:

Distribute an assessment sheet to each student. They will be challenged to identify human capital traits for 3 specialists in the community. Students may either cut and paste the human capital traits under the correct category heading or record their responses in written form. (Answer sheet included.)

ENRICHMENT & EXTENSION:

Research- Using the site from earlier, <https://www.bls.gov/k12/students/careers/career-exploration.htm>, (text and video on website), have students work in teams with their specialist puzzle cards to identify human capital needed for those careers and report their findings to the class.

Career Day- Invite specialists to the classroom. Identify the human capital required for their special careers.

My Human Capital- Have students create a poster that identifies their human capital.

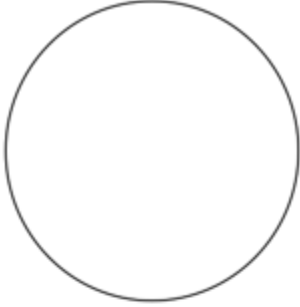
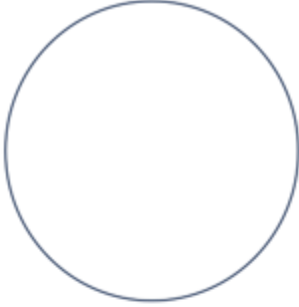
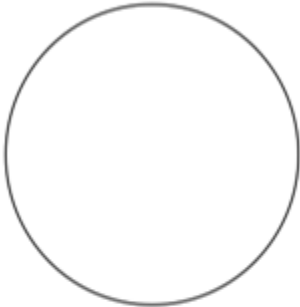
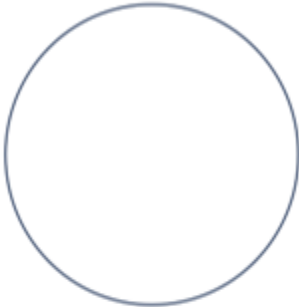
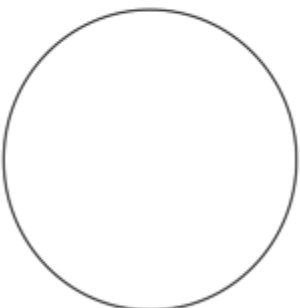
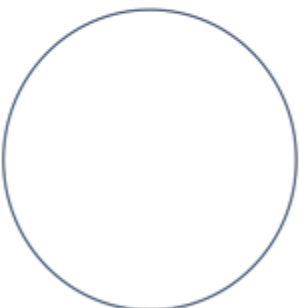
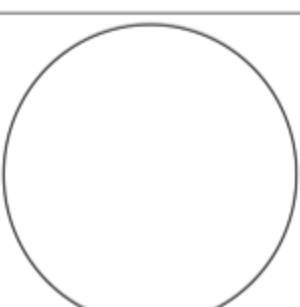
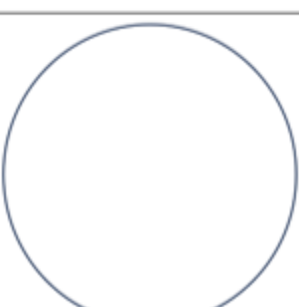
Showcasing My Human Capital- Have students present an oral presentation that showcasing a skill they have and the human capital needed to learn that skill.

Activity- Carrer Cards and Clues Puzzle Pieces

<p>dentist</p>		<p>I study hard to keep people’s teeth pearly white and help them have a healthy bite.</p>
<p>farmer</p>		<p>Working outside with animals and crops gives me pride...on a tractor I might ride.</p>
<p>architect</p>		<p>I like to draw and create buildings, offices, and schools. I use software, paper, pencil, and a blueprint as a rule.</p>
<p>veterinarian</p>		<p>I love keeping animals healthy of all size. I have attended school for many years to make me pet wise.</p>
<p>dancer</p>		<p>I like to entertain using my feet. People attend my performances by often reserving a seat.</p>
<p>artist</p>		<p>I use paint, canvas, and an easel each day. Finish a piece, and consumers will pay.</p>
<p>coach</p>		<p>I love sports, or so it seems! I also like training student athletes to work together on an award-winning team.</p>

<p>dentist</p>		<p>I study hard to keep people’s teeth pearly white and help them have a healthy bite.</p>
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<p>artist</p>		<p>I use paint, canvas, and an easel each day. Finish a piece, and consumers will pay.</p>
<p>coach</p>		<p>I love sports, or so it seems! I also like training student athletes to work together on an award-winning team.</p>

Activity: Red Light/ Green Light Formative Assessment

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Assessment:

Saving the Day: Human Capital Assessment

Directions: Sort the human capital traits below that best fits each specialist. Write in the box the correct descriptions, or cut and paste them in the correct category.

Football Player	Veterinarian	Baker
good at measuring	lifts weights and has a workout routine	physically fit
team player	finishes medical school	knows how to read recipes
attends football camp	artistic/creative	knows how to catch and throw a football
knows how to read an x-ray	practices with new recipes	attends trainings about new medicine
enjoys taking care of animals	enjoys being in the kitchen	knows how to use medical equipment

Human Capital Traits

Saving the Day: Human Capital Assessment

Assessment (**Suggested answers.**)

Sort the human capital traits below that best fits each specialist.

Football Player	Veterinarian	Baker
knows how to catch and throw a football	finishes medical school	good at measuring
physically fit	enjoys taking care of animals	knows how to read recipes
team player	knows how to use medical equipment	artistic/creative
attends football camp	knows how to read an x-ray	practices with new recipes
lifts weights and has a workout routine	attends trainings about new medicines	enjoys being in the kitchen

LESSON II

Saving the Day: Garrett Morgan’s Life-Changing Invention of the Traffic Signal

Author Karyn Parsons, Illustrator R. Gregory Christie
Little, Brown and Company, 2021

What's So Good About Public Goods & Services?

by Angie Battle

INTRODUCTION:

Public goods and services are things that help everyone in our community and are provided by the government to make our lives better. These are things that we all share and use together. The government collects taxes from people to be able to pay for public goods and services. In this lesson, students will identify the purpose of various public goods and services then evaluate their importance to the community.

STORY SYNOPSIS: This picture book biography recounts the story of Garrett Augustus Morgan [1877-1963] who became a successful inventor and entrepreneur. Growing up in a large African American farming family, his parents recognized that his intellectual abilities needed to be addressed. He is sent to the city where he studies, works, and hones his skills. Taking advantage of his opportunities, he becomes a prominent business man and skilled inventor, producing the traffic signal, a gas mask, and the zigzag switch for the sewing machine.

TIME ALLOCATION: 30 minutes

MATERIALS:

- Book- *Saving the Day: Garrett Morgan’s Life-Changing Invention of the Traffic Signal* by Karyn Parsons
- “What’s So Good About Public Goods and Services?” Slide Deck (Google Slides)
https://docs.google.com/presentation/d/19tmKiCL6W8xkNKDO1aQtsWIfjpkkymzymDqF_QpvGBQ/edit?usp=sharing
- A pair of scissors for each student
- A copy of Handout 1: What’s So Good About Public Goods and Services Activity for each pair of students
- A copy of Handout 2: Purpose of Public Goods or Services for each pair of students

OBJECTIVES:

- The student will listen to a story and consider how the traffic light helps make our communities safer.
- The student will define public goods and services.
- The student will explain how governments use the money collected from taxes to pay for public goods and services.
- The student will evaluate the importance of the public goods and services provided by government in their community.

ECONOMIC CONCEPTS:

- **Public goods and services** – goods or services that benefit (satisfy) many people at one time; goods or services that people can use even if they don’t pay for it.
- **Taxes** - money that people and businesses pay to the government which uses it to fund important things like building schools, hospitals, roads, and helping with things that benefit everyone in the country, like police and firefighters.

NATIONAL CONTENT STANDARDS IN ECONOMICS

STANDARD 16: ROLE OF GOVERNMENT AND MARKET FAILURE

There is an economic role for government in a market economy whenever the benefits of a government policy outweigh its costs. Governments often provide for national defense, address environmental concerns, define and protect property rights, and attempt to make markets more competitive. Most government policies also have direct or indirect effects on people’s incomes.

GEORGIA STANDARDS OF EXCELLENCE

SS3E2 Explain that governments provide certain types of goods and services in a market economy (schools, libraries, roads, police/fire protection, and military) and pay for these through taxes.

PROCEDURE:

1. Share with students that today they will listen to a book spotlighting the life of Garrett Morgan. Garrett was alarmed when he witnessed a bad accident caused by drivers confused with the “stop and go” traffic signals that were used at that time. He decided to make an improvement and add a third “slow down” feature to let drivers know the signal was about to change. This helped make travelers on the road much safer. Today, national, state, and local governments provide public goods and services like the traffic signal to make our communities safer, healthier, and happier.

2. Read aloud *Saving the Day: Garrett Morgan’s Life-Changing Invention of the Traffic Signal*.

3. After reading the story, ask students, “How did the improved traffic signal help people in the town?” **(It helped make intersections a lot safer by giving people a signal that the sign was about to change.)** Remind students a traffic signal is an example of a public good.

4. Display Slide 1 of the presentation and tell students they will take a closer look at what makes public goods and services good for our communities.

5. Display Slide 2 and read the text, “Public Good and Services Provided by the Government. Public goods and services are things that help everyone in our community and are provided by the government to keep us safe, healthy, and happy. These are things like roads, parks, libraries, and safety rules that keep us protected.”

6. Advance to Slide 2 and ask students to interpret this graphic. **(People pay taxes to the government which uses that money to pay for public goods and services like roads, traffic signals, military protection, fire departments, police departments, schools, etc.)**

7. Next, tell students you are going to play a game of “Would You Rather?” The next few slides will give them two options of public goods or services they would prefer to have in their community. If the option they select is on the left of the screen, they should stand on that side of the room. If the option they select is on the right of the screen, they should stand on that side of the room.

- Slide 4 – Traffic Signal or Public Park. Ask, “Would you rather have a traffic signal in your community or a public park?” Once they have moved to stand in the side of the room representing their choice, ask students to explain to the others who chose as they did why they made that selection. **(If they chose the traffic signal, answers will vary but may include traffic signals let people know when to stop, go, and slow down which helps keep people from getting into accidents. If they chose the public park, answers will vary but may include parks provide a place for people to meet, play, and enjoy the outdoors.)**
- Repeat the same procedure with Slides 5-7.
 - Slide 5 – Public School or Public Library - **(If they chose the school, answers will vary but may include you get to make lots of friends and learn cool things with other kids from all over. If they chose the public library, answers will vary but may include they have lots of books to read and provide quiet and cozy spaces where you can enjoy your books comfortably.)**
 - Slide 6 – Fire Station or Police Station - **(If they chose the fire station, answers will vary but may include they have brave firefighters who help us when we need it, and they work hard to keep our community safe by teaching us about fire safety. If they chose the police station, answers will vary but may include they have police officers who keep us safe and teach us how to stay safe in our community.)**

- Slide 7 **(If they chose the school, answers will vary but may include you get to make lots of friends and learn cool things with other kids from all over. If they chose the police station, answers will vary but may include they have police officers who keep us safe and teach us how to stay safe in our community.)**

8. Next, assign each student a partner and pass out scissors to each one. Give each pair of students one copy of Handout 1: What's So Good About Public Goods and Services Activity and one copy of Handout 2: Purpose of Public Goods or Services. Instruct students to work with their partner to cut out the items of Handout 1 on the dotted lines (there are 10 items in all). This should take no more than 5 minutes to complete. They will set Handout 2 off to the side for a few minutes.

9. Once students have cut out the items, advance the presentation to Slide 8. Instruct students to arrange the items they've cut out on their desks/tables to look like the map you have displayed. Go around the classroom to check to see if each pair has their interactive map set up to resemble what is on the slide. Once everyone is ready, proceed to procedure 10.

10. Explain to students they will be listening to instructions from you and discussing the purpose of a few of the public goods and services they see on their interactive map. Advance to Slide 9 and tell students to take away the library from their map and place it on a separate part of their desk/table away from their map. Ask the question, "What if there was no library in our community?" **(Answers will vary but may include there wouldn't be a place that allows anyone to check out books and videos at no price, lets people do research on topics of interest, or puts on special events like story time and arts & crafts sessions.)** Explain to students what we would miss if we didn't have a library is its purpose. Tell them to now take Handout 2 and jot down a couple of things that were mentioned on the row indicating the library. Give them a minute or two to complete this. Repeat what was shared to clarify. Repeat this procedure for Slides 10-12.

- Slide 10 - "What if there were no more schools?" **(Answers will vary but may include there wouldn't be a place any child can attend to learn and grow smarter, allows anyone to increase their human capital, or where we learn how to be good friends and good people.)**
- Slide 11 - "What if there was no more fire station?" **(Answers will vary but may include there wouldn't be a place that helps people when there's an emergency like when there is a fire or a bad accident or teach people to stay safe.)**
- Slide 12 - "What if there were no roads?" **(Answers will vary but may include there would not be paths that help us travel or allow us to move around safely, whether we're walking or riding in a car.)**

11. Advance to Slide 13 and announce that it is Quiz Time (the formative assessment). Explain to students they will indicate their answer choice by hand signals. Go on to Slide 14. Tell them if

their answer is option A, they will raise one finger up. If they believe the correct response is option B, they will raise two fingers up like the slide show. If the answer is option C, they will raise three fingers up. If the answer is option D, they will raise four fingers up.

12. Display Slide 15 and read the question and response options. Give students a few seconds to respond. Then advance to Slide 16 to reveal the correct answer. You will repeat this for the remaining slides.

FORMATIVE ASSESSMENT (Slides 15-24):

1. What are public goods and services?
 - A) Things that are only for rich people
 - B) Things that are provided by the government for everyone *
 - C) Things that can only be bought in special stores
 - D) Things that are only available on weekends
2. Which of the following is an example of a public service?
 - A) A grocery store
 - B) A library *
 - C) A video game
 - D) A toy store
3. What's an example of a public good?
 - A) A toy
 - B) A park *
 - C) A candy shop
 - D) A movie theater
4. Who pays for public goods and services?
 - A) Only the rich people
 - B) Only the poor people
 - C) Everyone in the community through taxes *
 - D) Nobody, they are free for everyone
5. Why are public goods and services important?
 - A) They are only for special occasions
 - B) They help make life better for everyone in a community *
 - C) They are not useful at all
 - D) They are only for adults

ENRICHMENT & EXTENSION:





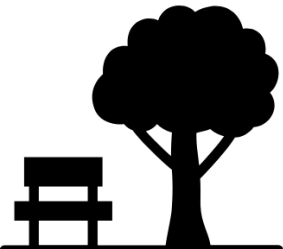
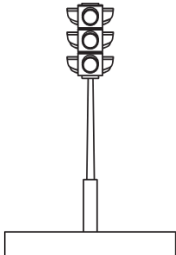


- **Writing** – Have students write a letter to municipal leaders or their state representatives suggesting a public good or service they should have in their community and explain why the government should use tax money to pay for it.

- **Community Leader Day** – Invite community leaders to visit the classroom and explain how they make the decisions on what public goods and services are provided for the area in which they live.

Handout 1: What's So Good About Public Goods and Services Activity




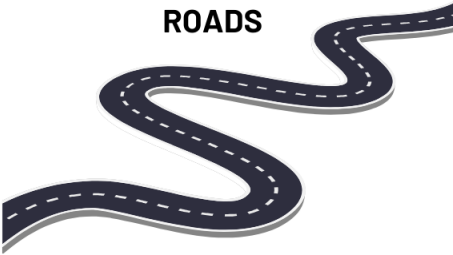
What's So Good About Public Goods & Services?

Directions: Cut out the items on this page on the dotted lines. With your small group or partner, quickly design a small town with the images. Listen and follow directions given to you by your teacher for the next part of this activity.

<p>SCHOOL</p> 	<p>POLICE STATION</p> 	
<p>FIRE STATION</p> 	<p>PUBLIC LIBRARY</p> 	
<p>PUBLIC PARK</p> 	<p>TRAFFIC SIGNAL</p> 	<p>CAR</p>  <p>MINIVAN</p> 

Two road cutouts are provided: a vertical road on the right side and a horizontal road at the bottom of the page, both with dashed center lines and dotted borders.

Handout 2: Purpose of Public Goods or Services

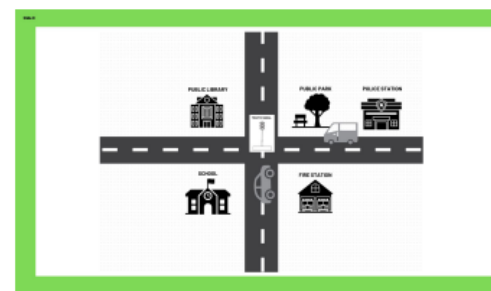
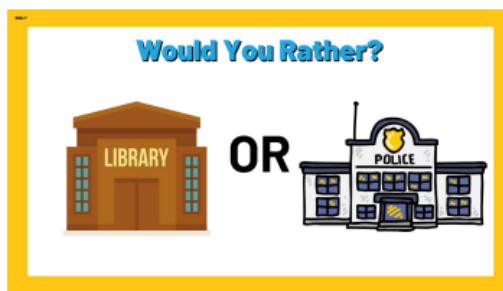
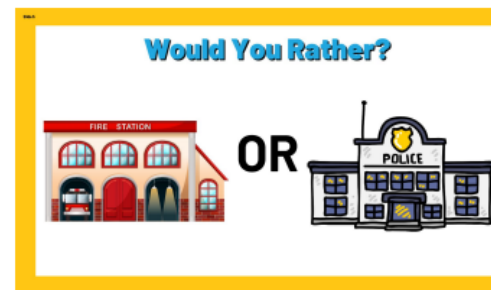
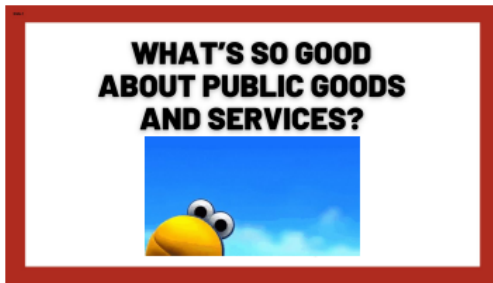
Public Good or Service	Purpose
<p data-bbox="423 447 678 478">PUBLIC LIBRARY</p> 	
<p data-bbox="488 751 613 783">SCHOOL</p> 	
<p data-bbox="451 1098 651 1129">FIRE STATION</p> 	
<p data-bbox="500 1434 602 1465">ROADS</p> 	

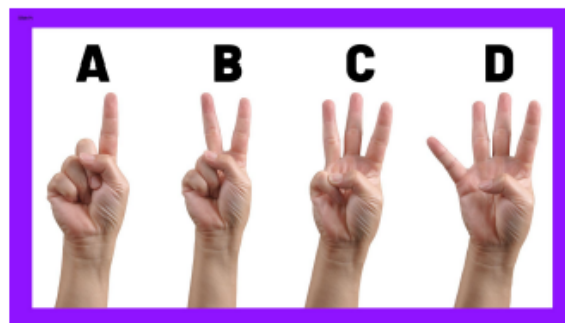
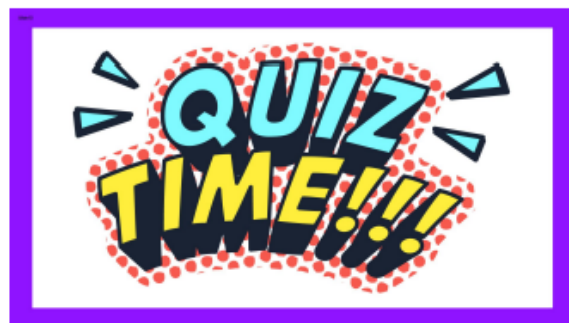
Handout 2: Purpose of Public Goods or Services

Answers will vary but may include the following:

Public Good or Service	Purpose
<p>PUBLIC LIBRARY</p> 	<ul style="list-style-type: none"> • Allows anyone to check out books and videos at no price • Lets people do research on topics of interest • Put on special events like storytime and arts & crafts
<p>SCHOOL</p> 	<ul style="list-style-type: none"> • Place any child can attend to learn and grow smarter • Allows anyone to increase their human capital • Where we learn how to be good friends and good people
<p>FIRE STATION</p> 	<ul style="list-style-type: none"> • Help people when there's an emergency like when there is a fire or a bad accident • Teach people to stay safe
<p>ROADS</p> 	<ul style="list-style-type: none"> • Paths that help us travel • Allow us to move around safely, whether we're walking or riding in a car

“What’s So Good About Public Goods and Services?” Slide Deck





Question 1:
What are public goods and services?
A) Things that are only for rich people
B) Things that are provided by the government for everyone
C) Things that can only be bought in special stores
D) Things that are only available on weekends

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Question 2:

Which of the following is an example of a public service?

- A) A grocery store
- B) A library
- C) A video game
- D) A toy store

Question 2:

Which of the following is an example of a public service?

- A) A grocery store
- B) A library
- C) A video game
- D) A toy store

Question 3:

What's an example of a public good?

- A) A toy
- B) A park
- C) A candy shop
- D) A movie theater

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- B) A park
- C) A candy shop
- D) A movie theater

Question 4:

Who pays for public goods and services?

- A) Only the rich people
- B) Only the poor people
- C) Everyone in the community through taxes
- D) Nobody, they are free for everyone

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- D) Nobody, they are free for everyone

Question 5:

Why are public goods and services important?

- A) They are only for special occasions.
- B) They help make life better for everyone in a community.
- C) They are not useful at all.
- D) They are only for adults.

Question 5:

Why are public goods and services important?

- A) They are only for special occasions.
- B) They help make life better for everyone in a community.
- C) They are not useful at all.
- D) They are only for adults.

Saving the Day: Garrett Morgan's Life-Changing Invention of the Traffic Signal

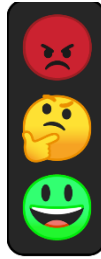
Author Karyn Parsons, Illustrator R. Gregory Christie

Little, Brown and Company, 2021

LESSON III

To Stay or to Go: Cost-Benefit Analysis

by Lynne Stover



BOOK SYNOPSIS: This picture book biography recounts the story of Garrett Augustus Morgan [1877-1963] who became a successful inventor and entrepreneur. Growing up in a large African American farming family, his parents recognized that his intellectual abilities needed to be addressed. He is sent to the city where he studies, works, and hones his skills. Taking advantage of his opportunities, he becomes a prominent business man and skilled inventor, producing the traffic signal, a gas mask, and the zigzag switch for the sewing machine.

INTRODUCTION: In this lesson students learn that a Cost/Benefit Decision-Making Model is a valuable tool. When using it for future decisions it allows them to consider less obvious factors that may be important to the outcome. When used in consideration to past decisions it helps them understand why an action was taken and to evaluate whether this was the best decision that could have been made.

GRADE LEVEL: 2-4

TIME REQUIRED: 25-30 minutes.

MATERIALS:

- Book- *Saving the Day: Garrett Morgan's Life-Changing Invention of the Traffic Signal* by Karyn Parsons
- Visual 1 - Cost/Benefit Decision-Making Model
- Visual 2- Cost-Benefit Decision-Making Grid -*To Go or to Stay*
- Projection Device
- Assessment
- Optional - Extension Activity
- Writing Tools

OBJECTIVES:

- The student will be introduced to the economic concepts of alternative, benefit, choice, cost, opportunity cost and scarcity.
- The student will participate in a teacher directed cost/benefit analysis activity.
- The students will discuss the choice made by other people.

ECONOMIC CONCEPTS

- **Benefit-** A benefit is what satisfies your wants. A benefit is the positive effect of a decision.
- **Cost-** A cost is what you give up when you decide to do something. A cost is the negative effect of a decision.
- **Alternative** - One of two or more possible choices or courses of action in a given situation.
- **Choice** - takes place whenever someone makes a personal decision to use limited resources.
- **Cost/benefit analysis** – takes place whenever the cost is weighed in regards to the benefit received
- **Opportunity cost** – that which is given up when a choice is made. When deciding how to spend a resource it is one’s second-best alternative; the alternative given up.
- **Scarcity** – the condition of limited resources. Because resources are limited, people must make choices.

NATIONAL STANDARDS

- **Standard 1: Scarcity.** Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.
- **Standard 2: Decision Making.** Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something; few choices are “all or nothing” decisions.

VIRGINIA HISTORY AND SOCIAL SCIENCE STANDARDS OF LEARNING -2023

Skills K-3	The student will apply history and social science skills to content by g. using economic decision-making models to make informed economic decisions
Skills VS	The student will apply history and social science skills to content by g. using economic decision-making models to make informed economic decisions and to explain the incentive and consequences of a specific choice.
CE.11	The student will apply history and social science skills to analyze how economic decisions are made in the marketplace and in daily life by b. explaining the importance of innovation and productivity including the freedom to choose occupations, the role of technology and the development of human capital.

CE.14	The student will apply history and social science skills to explain career opportunities and understand the fundamentals of personal finance by a. identifying the talents, interests, and aspirations that can influence career choice; b. identifying the attitudes and behaviors that strengthen the individual work ethic and promote career success; c. identifying human capital, abilities, intellectual and physical skills, work habits, and education and the changing supply of and demand for them in the economy.
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PROCEDURE:

1. Collect and prepare materials prior to class.
2. Show the students the cover of the book, *Saving the Day: Garrett Morgan’s Life-Changing Invention of the Traffic Signal* by Karyn Parsons. Ask them if they have ever heard of this inventor and businessman. Tell them they will be learning about him and his live saving inventions.
3. Read the book to the students. A seven-minute read aloud is available here: <https://www.youtube.com/watch?v=SHAEPpdM8dg>
4. Tell the students that today’s lesson will be about decision-making. Explain that many choices were made in this story. For example, his parents had to make a choice to either keep Garrett on the farm with his family or send him to the city to learn skills. It would be in their best interest to find out what the costs and benefits are before making a final decision.
5. Display Visual 1 and read the contents to the students, reviewing the terms **cost**, **benefit** and **alternative**.
6. Explain that all decisions have costs and benefits and that Garrett’s parents considered both the positive and negative things when making the decision to send him to the city. Did they make the right choice? If they had completed a cost-benefit decision grid before sending him to the city, would they have made the same decision?
7. Display Visual 2. Solicit suggestions from the students concerning the costs and benefits of making and selling lemonade and record them on the Cost-Benefit Decision Grid visual. Accept all reasonable suggestions.
8. Display Visual 2, Cost-Benefit Decision-Making Grid -*To Go or to Stay*. Solicit suggestions from the students concerning the costs and benefits of keeping Garrett on the farm or sending him to the city, and record them on the Cost-Benefit Decision Grid visual. Accept all reasonable suggestions. NOTE: Possible student replies can be found at the end of this lesson.

9. Ask the students to use the information they have suggested on the Cost-Benefit Decision Grid to help Garrett's parents to determine what decision they would make concerning the future of their son.
10. Fill out the information on the bottom of the grid. Define opportunity cost as the next best choice that is given up when you make a decision. Explain that the opportunity cost of making the decision to send Garret to the city or keeping him on the farm will be the choice that was not made.
11. Distribute the activity sheet and writing tools. Instruct students to complete a Cost-Benefit Decision Grid based on another situation from the story. (Students may work in pairs or small groups.) Decision Examples: Should colors be used as signals for the traffic light? [Alternatives: Use Colors/Don't Use Colors] Should sounds be used for the traffic signal? [Alternatives: Use Sounds/Don't Use Sounds]
12. Allow students to share their completed Cost-Benefit Decision Grids including their final decision with the class.
13. Conclude the lesson by reminding the students that all choices have costs and benefits. Often, we will make better decisions if we stop and think about our costs and benefits, before we choose what to do.

ASSESSMENT:

Distribute the provided assessment and writing tools to the students. Read the directions. If time allows read the definitions also. When the students have completed the assessment, check for understanding, encouraging discussion. Possible answers:

1. Garrett Morgan **benefited** from going to the city and getting an education. TRUE - He received an education and became an inventor and business person.
2. It did not **cost** anything for Garrett's parents to send him to the city away from his family. FALSE – His family missed him, it cost them the joy of having him there on the farm.
3. When you are young and in school, you never have to make a **choice**. Many students may answer UNSURE to this statement, feeling that decisions are made for them. Point out that they likely get to chose what they wear to school, eat for lunch and have for friends.
4. The **opportunity cost** of sending Garrett away to get an education in the city was that he was no longer on the farm with his family. TRUE- There were other reasons, but this is likely the second-best alternative.
5. The Morgan family had very little money. Because of this **scarcity** they had to make some difficult choices. TRUE- The Mogan family was large and they worked hard on their farm. However, they made little money.




EXTENSION ACTIVITIES:

Garrett Morgan had an interesting life. His engineering skills and problem-solving abilities lead him to invent many things. Challenge the students to research his life and create a list of all of his inventions.
















- An entrepreneur is a person who comes up with an idea for a good or service and who organizes the human, natural, and capital resources to produce that good or service. Ask the students if they think Garrett Morgan would be considered an entrepreneur.
- For discussion: What might have been different if Garrett Morgan had decided to use sounds instead of lights in his traffic signal invention?

Cost/Benefit Decision-Making Model

A Cost/Benefit Decision-Making Grid is a tool used for deciding whether or not an action should be taken by comparing its costs and benefits.

 <p>COST</p>	<p>A cost is what you give up when you decide to do something. Costs are the effort, loss, or sacrifice necessary to achieve or obtain something.</p>
 <p>ALTERNATIVE</p>	<p>An alternative is one of two or more possible choices or courses of action in a given situation.</p>
 <p>BENEFIT</p>	<p>A benefit is what satisfies your wants. A benefit is the positive effect of a decision.</p>
















Cost/Benefit Decision-Making Grid

Alternatives Choices 	Alternative 1	Alternative 2
Benefits Advantages or Good Points 	  	  
Costs Disadvantages or Bad Points 	  	  

Visual 2-

Saving the Day
 Cost-Benefit Decision-Making Grid
To Go or to Stay

Directions: What should young Garrett’s parents do? Should they keep him with his brothers and sisters on the farm, or send him to the city to get an education and learn new skills? Help them decide by filling in this chart with some of the advantages (benefits) and disadvantages (costs) of their two possible alternatives (choices).

Alternatives Choices 	Alternative 1 Keep Garret on the farm.	Alternative 2 Send Garret to the city.
Benefits <i>Advantages or Good Points</i> 	  	  
Costs <i>Disadvantages or Bad Points</i> 	  	  

If you were Garrett’s parents. what would you do?
 Keep him on the farm _____ Send him away to the city _____

Why did you make this decision? _____

What was your opportunity cost? _____

Activity Sheet-

Cost-Benefit Decision Grid

Problem:











Alternatives Choices 	Alternative 1	Alternative 2
Benefits <i>Advantages or Good Points</i> 	  	  
Costs <i>Disadvantages or Bad Points</i> 	  	  








Decision:

Opportunity Cost:

Possible Responses-

Saving the Day
 Cost-Benefit Decision-Making Grid
To Go or to Stay

Alternatives Choices 	Alternative 1 Keep Garrett on the farm.	Alternative 2 Send Garrett to the city.
Benefits <i>Advantages or Good Points</i> 	<ul style="list-style-type: none">  The family could stay together.  Maybe Garrett could get stronger and learn to help with more farm work.  Garrett could help his brothers and sisters with their schooling.  Garrett might be able to invent things to make farming easier. 	<ul style="list-style-type: none">  Garrett could get an education and learn new skills.  Garrett was of little help on the farm. Maybe he would do better in the city.  If Garrett invented new things he might be able to help others.  If Garrett invented new things he might be able to make money.

<p style="text-align: center;">Costs <i>Disadvantages or Bad Points</i></p> 	<p> Garrett would not get an education if he stayed on the farm.</p> <p> Garrett might get hurt or cause others to get hurt because of his physical weaknesses.</p> <p> It cost money to feed Garret.</p> <p> Garrett will never be a farmer.</p>	<p> Garrett might not be able to take care of himself in the city.</p> <p> We would miss him.</p> <p> He might not be able to find work and make money.</p> <p> He could miss his family and get homesick.</p>
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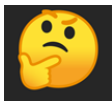


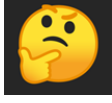

Assessment-

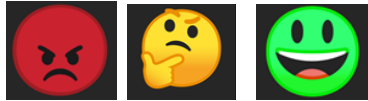
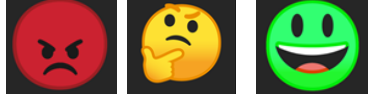
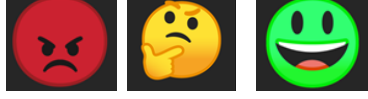
Saving the Day



Directions: If the statement is true, circle the green traffic light, if it is false circle the red traffic light, if you are unsure, circle the yellow traffic light. The difintions on the box below will help you with your responcees.

 **False**
  **Unsure**
  **True**

<p>1. Garrett Morgan benefited from going to the city and getting an education.</p>	  
<p>2. It did not cost anything for Garrett’s parents to send him to the city away from his family.</p>	  

<p>3. When you are young and in school, you never have to make a choice.</p>	
<p>4. The opportunity cost of sending Garrett away to get an education in the city was that he was no longer on the farm with his family.</p>	
<p>5. The Morgan family had very little money. Because of this scarcity they had to make some difficult choices.</p>	

- **Benefit**- A benefit is what satisfies your wants. A benefit is the positive effect of a decision.
- **Cost**- A cost is what you give up when you decide to do something.
- A cost is the negative effect of a decision.
- **Choice** - takes place whenever someone makes a personal decision to use limited resources.
- **Opportunity cost** – that which is given up when a choice is made. When deciding how to spend a resource it is one’s second-best alternative; the alternative given up.
- **Scarcity** – the condition of limited resources. Because resources are limited, people must make choice

Discussion Questions

Saving the Day: Garrett Morgan's Life-Changing Invention of the Traffic Signal
by Karyn Parsons

Book Introduction:

Hold up paperclip for the students to see and ask the following questions:

- “What job can this simple tool do?” [A paperclip keeps loose papers together.]
- “What problem does it solve?” [It helps keep papers organized and desks neat.]
- Where do you think the idea for the paperclip come from? [An inventor thought of the idea of paperclip. In fact, most of the things we use every day were invented or designed by a person trying to solve a problem.]

Show What the students a picture of a traffic signal and ask:

- What is this? [It is a traffic signal.]

- Where can a traffic signal be found? [Traffic signals are located on roads.]
- do traffic signals do? [They regulate traffic so that drivers know when it's their turn to proceed on a road.]
- What are the colors on a traffic signal and what do they stand for? [Red means stop. Yellow means caution. Green means go.]

Explain that the story you are going to read is about the perceptive and clever man who invented the lifesaving traffic signal.



Discussion Questions:

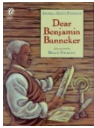

1. **Scarcity** means not having enough of something we want. What was scarce for Garrett Morgan's family when he was growing up?? [His parents' house was small and he had five siblings. Space was scarce. His family had to spend most of their time working on their farm. There was little room for mistakes. Time was scarce. They worked hard but had little money. Money was scarce.]
2. **Human resources** are the efforts directed toward producing goods and services. Garrett was a **human resource** with many skills and abilities. What are some of the skills that made him a valuable human resource. [He had many ideas for how to make things work better. He could build things.]
3. Garrett's brothers and sisters were also **human resources**. What skills and talents did they have? [Ruth could fish. Will was a baker. Lucille was knowledgeable about the stars. Frank was a mechanic. Minnie was a singer.]
4. Garrett was smart and inventive. Why do you think his parents sent him to the city to be tutored? [They wanted him to **invest in his human capital** or


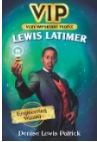
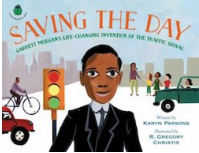

invest in himself. Therefore, becoming more knowledgeable, skilled, and valuable human resource.]

5. What was the motivation for Garrett to invent new things. [He saw that improvements on existing machines would help others and that new inventions could save lives.]

6. Garrett had a lot of the personality traits or qualities that inventors and **entrepreneurs** need to have. What are some of those traits? [He is willing to take a risk. He was persistent; he didn’t give up. He invested time in getting an education so he had the necessary skills. He believed in his ideas and in himself.]

7. How do traffic lights help people? [They signal to drivers when to go and when to stop.] Is a traffic signal an example of a public good or a private good? [It is an example of a public good because it benefits many people at one time.]

Title/Author	Publisher/ Copyright	Notes
<p><i>Dear Benjamin Banneker</i> by Andrea Davis Pinkney</p>  <p>Banneker, Benjamin [1731-1806]</p>	<p>Harcourt-1994</p>	<p>Reading Level: 6.4 Interest Level: 3-6 Econ Concepts: Human Capital, Entrepreneurship, Productive Resources [Thomas Jefferson connection] https://www.youtube.com/watch?</p>
<p><i>George Crum and the Saratoga Chip</i> by Gaylia Taylor</p>  <p>Speck, George [a.k.a. George Crum] [1824-1914]</p>	<p>Lee & Low Publishers-2018</p>	<p>Reading Level: 5:3 Interest Level: 2-5 Econ Concepts: Entrepreneurship, Productive Resources, Choices [Cornelius Vanderbilt connection] Read Aloud: https://www.youtube.com/watch?v=TyQSpXwdevU</p>

<p><i>Ice Cream Man: How Augustus Jackson Made a Sweet Treat Better</i> by Emily Glenda Armand and Kim Freeman</p> 	<p>Bloomsbury-2018</p>	<p>Reading Level: 1.2 Interest Level: K-3 Econ Concepts: Entrepreneurship, Productive Resources, Choices [White House Chef] Read Aloud: https://www.youtube.com/watch?v=w7ZTD-AmqUg</p>
<p><i>Lewis Latimer: Engineering Wizard</i> by Denise Lewis Patrick</p>  <p>Latimer, Lewis Howard [1848-1928]</p>	<p>HaperCollins-2021</p>	<p>Reading Level: 3.0 Interest Level: 3-6 Econ Concepts: Human Capital, Entrepreneurship [Thomas Edison connection]</p>
<p><i>Saving the Day: Garrett Morgan's Life-Changing Invention of the Traffic Signal</i> by Karyn Parsons</p> 	<p>Little, Brown & Co.- 2021</p>	<p>Reading Level: 2.0 Interest Level: K-3 Economic Concepts: Human Capital, Decision-Making, Public Services, Choices, Entrepreneurship Read Aloud: https://www.youtube.com/watch?v=SHAEPpdM8dg</p>
<p><i>Whoosh! Lonnie Johnson's Super-Soaking Stream of Inventions</i> by Chris Bolton</p>  <p>Johnson, Lonnie [1948]</p>	<p>Charlesbridge Publishing-2018</p>	<p>Reading Level: 4.7 Interest Level: 2-7 Econ Concepts: Human Capital, Entrepreneurship, [NASA connection] Read Aloud: https://www.youtube.com/watch?v=zL99Kv6fias</p>

African American Inventors and Entrepreneurs