

# Contextualized Lesson Plans

ACCESSIBLE ONLINE TOOLS FOR CONTEXTUALIZED  
LEARNING SEPTEMBER 2021

Created for OSSE/UDC Mini-Professional Development Institute by  
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## Accessible Online Tools for Contextualized Learning (2021)

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**Lesson plans adapted from:** The Literacy Cooperative of Greater Cleveland (2019, 2020) *Contextualized Curriculum* (CC BY-NC-SA)

**Register for FREE access to additional lesson plans in 5 industries:**

<https://www.literacycooperative.org/contextualized-curriculum/>

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## Mini-Professional Development Institute 2021

**OVERVIEW:** The Office of the State Superintendent of Education, Adult and Family Education (OSSE AFE), in collaboration with the University of the District of Columbia (UDC), will host a four-day Mini-Professional Development Institute for adult education providers, training providers, partner agencies and other stakeholders.

**What are some online resources and strategies that can be used to enliven learning for adult learners who are pursuing different career paths?**

How can adult educators and vocational instructors contextualize their online academic instructional programs and occupational skills training to help District residents achieve their workforce goals?

Each webinar will introduce and highlight free online resources and a template that can be used to develop contextualized lesson plans that integrate adult literacy, workforce preparation and workforce training aligned to one of seven of the District of Columbia's high demand industries and specific industry certifications.

### Schedule of Events: September 27-30, 2021

Date(s)	Time(s)	Industry-Focus	Sample Lesson & Slideshow
Monday Sept. 27, 2021	10-11 a.m.	<b>IT/Business Administration, inclusive of Finance (Banking)</b>	<a href="#">Creating Invoices and Using Formulas Slideshow</a>
	2-3 p.m.	<b>Hospitality</b>	<a href="#">Job Titles Slideshow</a>
Tuesday Sept. 28, 2021	10-11 a.m.	<b>Healthcare</b>	<a href="#">Measurement 1 Slideshow</a>
	2-3 p.m.	<b>Construction</b>	<a href="#">Classical Civilizations Slideshow</a>
Wednesday Sept. 29, 2021	10-11 a.m.	<b>Infrastructure (Energy &amp; Utilities, Energy Efficient Technology, Transportation &amp; Logistics)</b>	<a href="#">Conservation, Transformation and Flow of Energy Slideshow</a>
	2-3 p.m.	<b>Law and Security</b>	<a href="#">Community Resources Slideshow</a>
Thursday Sept. 30, 2021	10-11 a.m.	<b>Early Childhood Education</b>	<a href="#">Containers Slideshow</a>

# Instructional strategies for college and career readiness in the 21<sup>st</sup> Century

**Contextualized Learning:** Delivering instruction of academic skills and content in the form of real-life and/or career-focused contexts. Utilizing frameworks that are familiar and/or meaningful to students builds on prior knowledge and can make the learning process easier as students can connect new information to something they already know.

## **Suggested Topics for Contextualization**

- Culture
- Current Workforce Trends
- Diversity
- Professionalism
- Teamwork
- Discrimination
- Harassment
- Test Strategies
- Troubleshooting

The following supplemental topics can be incorporated into or interchanged with the course at the teacher's discretion based on student needs. Resources are included in the appendix.

- Note-taking strategies
- Study skills
- Employability skills

**Differentiation:** Responsive teaching that recognizes diversity and aims to meet the unique needs of all learners. Incorporating thoughtful strategy in the planning, process and delivery of instruction to offer variety of content, tools, tasks, assessments to facilitate multi-level student success.

**Interdisciplinary Approach:** Moving beyond 'teaching for the test', integrated instruction incorporates more than one discipline or subject area during knowledge and skill building lessons. The integration of subject matters helps facilitate critical thinking, allowing students to make connections across topics and gain deeper understanding of the material.

Source: Farrell, Meagen (2013) *Teaching Adults: A GED Test Resource Book*. New Readers Press: Syracuse, NY. <https://www.newreaderspress.com/teaching-adults-ged>

## Contextualized Lesson Plan Template with Notes

**Industry:**  IT/Business Administration  Hospitality  Healthcare  Construction  
 Infrastructure  Law & Security  Early Childhood Education

**Academic Subject:**  Language Arts  Science  Social Studies  Mathematics

**Lesson Title:** \_\_\_\_\_

**Author:** \_\_\_\_\_ **Program:** \_\_\_\_\_

**Skill Level:** \_\_\_\_\_

**Lesson Summary:**

**Notes to instructor:**

### Materials Needed:

- Student computers with internet access
- Instructor computer with internet access
- Projector and screen
- Whiteboard or flip chart & markers
- Handouts:
- Textbook (page #s):
- Website(s):

**Objectives:** Students will be able to...

- List standards addressed
- Recognize key vocabulary:
- Identify, search, compare...
- Analyze, apply, calculate, define, write...

### Introduction (Bell Work, Warm Up, Vocabulary, etc):

- A. Motivate students by applying the academic skill to its context in an industry
  1. Ask students a brief question or present a scenario (on board, or

- provide handout)
- 2. Encourage discussion or written responses
- 3. Explain the connection to today's lesson

### **Lesson Activities:**

- A. Contextualized Learning in Industry: \_\_\_\_\_
  - 1. Share a video, handout, physical task, or physical objects to introduce a real world work scenario
    - a. Explain
    - b. Students will...
    - c.
- B. Direct instruction
  - 1. On instructor computer/projector, show students how to:
    - a. Complete a task,
    - b. Understand an academic concept, or
    - c. Access learning materials...
  - 2. Provide your essential points of learning:
    - a.
    - b.
    - c.
- C. Guided Practice
  - 1. As a large group, have students contribute ideas and answers as you work through sample problems, texts, or scenarios
  - 2. Document the sources for all handouts, textbooks, videos, and other learning content for future reference
- D. Exploration Activity
  - 1. Give students a task to apply what they have learned or practice independently as individuals or small groups
    - a. Circulate during this time to answer questions. Online, rotate through breakout groups or discussion forums to monitor activity.
    - b. If students complete early, provide extension or challenge activities (see differentiation below)
  - 2. Provide time to access personalized learning material (see "Top Picks for DC Educators").
- E. Wrap up and teach back (options)
  - 1. If you defined words or introduced formulas, quickly review them and their meanings.
  - 2. Ask each student or group to share something they learned or report back about their results.
  - 3. Formative assessment: Give an "exit ticket" with one or more brief



questions to assess each student's mastery of the day's topic and adjust future instruction.

### **Differentiation:**

- A. Beginner (students who take more time):
  - 1. Assign a peer partner who can help define terms or explain the process. Make sure the partner does not do the work FOR the slower student.
  - 2. Direct student to additional explanation and practice on the topic.
- B. Accelerated (finishes quickly):
  - 1. After completing small group or individual activity, ask the student to assist a beginner student. Tell them NOT to complete the activity for the slower student.
  - 2. Provide additional activities to keep the learner engaged.
  - 3. Direct student to additional information or challenges on the topic.

## Blank Contextualized Lesson Plan Template

**Industry:**  IT/Business Administration  Hospitality  Healthcare  Construction  
 Infrastructure  Law & Security  Early Childhood Education

**Academic Subject:**  Language Arts  Science  Social Studies  Mathematics

**Lesson Title:** \_\_\_\_\_

**Author:** \_\_\_\_\_ **Program:** \_\_\_\_\_

**Skill Level:** \_\_\_\_\_

**Lesson Summary:**

**Notes to instructor:**

### Materials Needed:

- 
- 
- 
- 

**Objectives/Outcome:** Students will be able to...

- 
- 
- 

### Introduction (Bell Work, Warm Up, Vocabulary, etc):

- A. Motivate students by
- 1.
  - 2.
  - 3.

### Lesson Activities:

A. Contextualized Learning

1.
  - a.
  - b.

B. Direct instruction

1.
  - a.
  - b.
  - c.
2.
  - a.
  - b.
  - c.

C. Guided Practice

- 1.
- 2.

D. Exploration Activity

1.
  - a.
  - b.
2. Provide time to access personalized learning material (see “Top Picks for DC Educators”).

E. Wrap up and teach back (5-10 minutes)

- 1.
- 2.
- 3.

**Differentiation & Assessment:**

A. Beginner (students who take more time):

- 1.
- 2.

B. Accelerated (finishes quickly):

- 1.
- 2.

C. Assessment

1.

# IT, Business Administration & Finance

## Module 2, Lesson 6: Creating Invoices and Using Formulas

**Skill Level:** Basic Computer Literacy, Intermediate Computer Literacy, or IC3

**Lesson Summary:** In this lesson, students will learn how to create an invoice using a Microsoft Word template. They will create billing formulas to type into the template and learn the concepts used in solving problems with formulas such as substitution, solving for a variable, and applying order of operations (PEMDAS).

### Notes to Instructor:

- The length of time needed for this lesson will vary greatly based on your students' backgrounds with technology. The lesson can be adapted for use over the course of two class sessions, one week, or any other span of time that seems appropriate. For beginner classes, demonstrate each step of the lesson on the instructor computer / projector and have students follow along on their individual computers.
- It may be helpful to check your lab computers ahead of time to make sure the version of Microsoft Word installed contains the template "Service Invoice." If not, look for another template that is like the one shown in the lesson plan below.
- To review the Order of Operations (using the acronym PEMDAS) before the lesson, visit this page at MathisFun.com  
<http://www.mathsisfun.com/operation-order-pemdas.html>
- To review basic algebra concepts ahead of time, view videos and practice problems at Khan Academy (2019) "Variables, expressions, & equations"  
<https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-intro-equations/v/variables-expressions-and-equations>

### Resources/Materials Needed

- Student computers with internet access, printer access, and Microsoft Office software
- Instructor computer with internet access, printer access, MS Office software, projector, and screen
- MS Word file with partially completed Invoice: "Digital Literacy Lesson 6 Invoice." Download from:  
<https://drive.google.com/open?id=1kh9eqTRFZlpZTisWptymEV9-lpp01z-h>

**Objectives:** Students will be able to...

- Follow Order of Operations in solving multi-step math problems.
- Create basic cost formulas to calculate customer charges.
- Understand the concepts of substitution and solving for a variable.
- Use a template in Microsoft Word to create an invoice.
- Print and save a document.

### **Introduction (5-10 minutes):**

1. Ask the class if anyone has ever thought of owning a business. Has anyone done odd jobs or subcontracting work? These are all examples of times when you would need to create an invoice to bill customers. Today we are going to go over how to use a template to create standard invoices and create basic billing formulas to calculate charges.

### **Lesson Activities:**

1. Searching for a Template (5 minutes)
  1. On the instructor computer / projector, show students how to open Microsoft Word and click on "New."
  2. Demonstrate how to use the search function to look for an invoice template. Ask students to do the same on their computers and select the "Service Invoice" template. It should look like this:

<b>PrintDoc</b>	<b>INVOICE</b>
1234 Summit Pkwy. Mount Green, Ohio 44100 314-555-6000 MGR@printdoc.com	<b>INVOICE #</b> 100 <b>DATE</b> November 1, 2017
<b>TO</b> JRC Offices 6789 Jenkins Blvd. Edelburg, Ohio 44252 314-777-8000 manager@jrc.org	<b>FOR</b> Printer Installation <b>P.O. #</b> N/A

Description	Amount
3 labor hours (H) at \$30	\$90.00
6 printer cables (P) at \$4.25	\$25.50
<b>Total</b>	<b>30H + 4.25P = \$115.25</b>

Make all checks payable to **PrintDoc**  
 Payment is due within 30 days.  
 If you have any questions concerning this invoice, contact 314-555-6000 | MGR@printdoc.com

THANK YOU FOR YOUR BUSINESS!

3. Take a moment to explain what a template: a ready-made form you can just type into. Today we are going to learn how to use this type of tool. Take another minute to demonstrate how to type in information.
2. Creating and Using Cost Formulas (60 minutes)
    1. So how do you figure out what to charge a customer for a service you provide? The answer is basic math, but also basic algebra! Most invoices use formulas to charge for things like labor hours, mileage, fees, and/or materials.
      - a. Consider this example: you take your phone to the repair shop to replace a broken screen. The repair shop charges a "materials fee" for the cost of the new screen plus a certain dollar amount for the amount of time it takes to fix the screen. The company has a formula for how to calculate charges. In words, it would be "customer cost = materials fee plus the charge for number of hours to replace the screen." In symbols, it would be  $C = M + 20xH$ , where M is the materials fee and H is the number of hours to replace the screen.
      - b. Another example would be if you charge \$24 per hour as a

Network Administrator, your formula is  $C = 24xH$  where  $C$  is the charge, and  $H$  is the number of hours worked.

- c. Write the formulas on the board and make up a few numbers for substitution.
    - For example, If the new screen costs \$55 and the screen takes an hour and a half to replace, then what is the final charge?
    - A network administrator job to install new software may take 8 hours to complete. What is the customer charge?
    - Ask students to calculate the outcomes. Did they all get the same answers? Did they all do the problem in the same way?
    - Did anyone notice that they had to do multiplication before addition in the first example? This is called order of operations, or PEMDAS, which some of you may remember from school.
  - d. Review the rules of PEMDAS using Math is Fun - <http://www.mathsisfun.com/operation-order-pemdas.html>
    - P - ( ) parentheses E
    - exponents
    - M - multiplication, left to right
    - D - division, left to right
    - A - addition
    - S - subtraction
2. Select a portion of a YouTube video tutorial that provides example hourly wage scenarios, plus a common situation that pays extra. Pause the videos and ask the class to work out the problems as a group before revealing the answer in the video. Some options include:
- a. Hourly Wage and Shift Premium: "Lesson 2 - Hourly Wage" (2015) by factswithfowler  
<https://www.youtube.com/watch?v=fgT1Pe7YXlk>
  - b. "Hourly Rate and Overtime Rate" (2017) by AlRichards314  
<https://www.youtube.com/watch?v=yHRuXVipIU0>
  - c. Commissions "Gross Earning: Commissions-Math with Business Applications, Payroll Unit" (2016) by Peter C. Esser at Southwest Tech Math/Science Center  
<https://www.youtube.com/watch?v=J-Xk5vCnhPk>
  - d. Video comes a PowerPoint of the presentation, fill-in-the-blank note pages, and a unit assessment (2013)  
<https://sites.google.com/site/swtcbusmath/home/payroll>



3. Allow students to get into pairs or groups of three. Each pair or group has 3 minutes to come up with at least one example of what companies might charge for an hourly service.
4. Ask groups to report back on their examples. Help them to create formulas in words and then symbols on the white board.
5. Open Excel and project to the class. Explain that formulas are equations where the letters always stand for the same things. They are called variables and you will always be trying to figure out (or solve for) one of them. Convert one of the student-created hourly wage examples into a formula in Excel.
6. *If more practice is needed*, have students work in groups to solve more formula problems - use Trades Math worksheets p.78-81. Go around the room and have each group explain how they did a problem. Do a few rounds of this until the problems are finished.

*\*Additional video lessons and practice on these concepts can be found at*

<https://www.khanacademy.org/math/algebra/introduction-to-algebra>

<https://www.khanacademy.org/math/algebra/units-in-modeling/appropriate-units/v/appropriate-units>

3. Filling in the Template (45 minutes)
  - a. Put students into groups and give them the task of creating an IT service scenario. This is a mini-research project where they will use the internet to look up services provided by IT companies such as ComDoc, Best Buy, or any electronics or communication company. Open the file "Digital Literacy Lesson 6 Invoice" to show them what they will be creating. Groups should make up a company name for the invoice, fictitious phone number, email account, etc. On the example, point out the fact that it is a printing company and that the job involves installing printers.
  - b. Once they have researched the various services they might provide, ask students to create a billing formula for a particular service. Show how to type it into the template using the example on the instructor computer /projector.
  - c. Have the groups save their invoice on a class computer and email it to the instructor.
  - d. Allow the groups to present their company and formula to the class. The instructor can pull up each file from his or her own email on the instructor computer.

4. Personalized Learning: Allow time for individual online work
  - a. Computer Essentials by Essential Education (must set up student accounts in advance)  
<https://www.essential.com/educators/computer-essentials>
  - b. Northstar Digital Assessment: Limited free lessons and assessments available. Testing locations can give students access to Northstar Online Learning <https://www.digitalliteracyassessment.org/>
5. Wrap up and teach back (5-10 minutes)
  1. Ask students what they learned or will take home from today's lesson. Do they foresee the possibility of using these skills in the future? Ask students if they would like to have the invoice they created emailed to them individually.
  2. Thank students for taking the time to learn more about workplace math. If needed, turn off or return computers and tidy up the room.

## **Differentiation & Assessment**

1. Beginner (students who need more time)
  - a. For students who are struggling with the concept of formulas, try to relate it to their past work experience by asking about previous jobs and giving them possible scenarios in that context.
  - b. Illustrate variables in equations by drawing pictures on the board.
  - c. Ensure that student groups have a range of skill levels so that advanced students can “teach back” to students.
  - d. Request that less-experienced students type the invoice during the group project in order to gain more experience.
2. Accelerated (finishes quickly)
  - e. Ask students to “teach back” to other students who are having trouble completing the lesson tasks.
3. Take online practice test or assessment for Digital Literacy Certifications:
  - a. Northstar Digital Literacy Assessment: Testing locations can access staff training and technical support, and award certificates <https://www.digitalliteracyassessment.org/>
  - b. Certiport’s IC3 Digital Literacy Certification  
<https://certiport.pearsonvue.com/Certifications/IC3/Digital-Literacy-Certification/Overview.aspx>



# Hospitality

## Week 1, Day B: Job Titles

**Skill Level:** NRS EFL(s) 1-6

**Time Frame:** 2.5 hours

**Learner Outcome:** Students will identify skills for success in the food service industry.

### Materials/Resources Needed:

- Scissors for student use
- Handout: "Match the Words to Make a Sentence"
- Whiteboard with dry erase markers & eraser

### Lesson Activities:

#### 1. Vocabulary:

**Words:** Personal appearance, positive attitude, polite, responsibility, organized, on-time, late, confident, responsible

- Teacher displays vocabulary words on the board.
- Teacher says word and students repeat word.
- Teacher demonstrates or displays pictures of vocabulary words.
- Students write words in notebook.
- Large group generates 2-5 sentences using vocabulary words – write in student notebook.

#### 2. Contextualization: Comparing Hospitality Jobs

- Point out a few jobs on pages 192 & 193 of *Oxford Picture Dictionary, 3<sup>rd</sup> edition*. Examples include doorman, parking attendant, desk clerk, housekeeper, short-order cook, dishwasher, server, bus person, caterer.
- Note which jobs you picked to reference again in the future classes.
- Have students pick two jobs on pages 192 and 193. Compare them by writing a blank T-chart on the whiteboard with the name of each job as the headings. Repeat if there is additional time.

#### 3. Dialogue: Starting a New Job

- Pair students to create a dialogue introducing themselves using two jobs:
- Server: "Hello, I am Jaime the server. What is your name?"
- Busser: "Hello, I am Maria the busser. Nice to meet you."
- Students can share their new dialogues with the class – role play as well!

#### 4. **Whole Group: Good or Bad Worker?**

- Write words on the board in a T-chart with words under the headings “Good Worker” and “Bad Worker.” Ask students to brainstorm English words to describe a good or bad worker. Examples:
  - i. Good: Helpful, nice, likes to learn, works hard, good listener.
  - ii. Bad: Talks too much, late, self-centered, and rude.

#### 5. **“Match the Words to Make a Sentence”**

- Have student cut A/B sentence pieces into individual rectangles... arrange A/B pieces to match and form accurate and complete sentences.
- Take turns reading the correct sentences orally – ex. Teacher reads “A,” student read “B.”
- Project or print copies of the key for students to check their own work.

#### 6. **Personalized Learning: ServSafe**

- Provide students time to work individually through online training course for ServSafe Food Handler Certification (National Restaurant Association) <https://www.servsafe.com/ServSafe-Food-Handler>

#### 7. **Exit Ticket: “I Can Do It”**

- Distribute handout to students from *Bridging the Employment Gap* page 49: [http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap_manual_kitchen.pdf)
- Complete as whole group, pairs or individually.
- Optional Discussion: Which jobs use which skills? Which jobs are you prepared for?

#### **Assessment/Differentiation Ideas:**

**Review:** Teacher reviews vocabulary words with pictures, pronunciations, and/or games.

**Look up job titles:** Enter job titles to search for postings at DC Works <https://www.dcnetworks.org/> or search/explore “Browse Careers” page at Career Coach DC <https://careercoachdc.emsicc.com/browse-careers>

See additional learning activities in the “Personal Safety” unit of *Bridging the Employment Gap* pages 23-72, including “**Safety in the Workplace**”

**Demonstration Assessment:**

[http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap_manual_kitchen.pdf)



## Week 1, Day B: Match the Words to Make a Sentence

Use scissors to cut out both sides of the sentence. Match them together.

A) It's important to be	B) to the customer.
A) Always be polite and helpful	B) going to be late for work.
A) The employee needs to keep	B) he has a positive attitude.
A) You must call when you are	B) on time for work.
A) Always look neat and clean because	B) the snack bar organized.
A) John always smiles at work because	B) personal appearance is important.

## Week 1, Day B: Match the Words to Make a Sentence-KEY

Answers for matching:

A) It's important to be	B) on time for work.
A) Always be polite and helpful	B) to the customer.
A) The employee needs to keep	B) the snack bar organized.
A) You must call when you are	B) going to be late for work.
A) Always look neat and clean because	B) personal appearance is important.
A) John always smiles at work because	B) he has a positive attitude.



# Healthcare

## Module 5, Math Lesson 1: Measurement 1

**Skill Level:** NRS EFL(s) 3-6

**Learner Prior Knowledge:** Multiplication, division, decimals, fractions, percentages, ratios, proportions, basic computer and Internet skills

### Notes to instructor:

- The time for this lesson is estimated at three hours.
- This lesson lists specific publications for group demonstration and individual practice problems. Updated resources may be available from the same publisher, or you may substitute with another publication that reinforces the same skillset.
- Teacher will walk around during group work and individual work to check for understanding. Work through a problem if individual student is struggling.
- Pause exercise and work through more than one problem as a class if group is struggling. Reteach if necessary.
- Further review in next class if not mastered. Mastery is considered completing individual practice problems with 80% accuracy.

### Materials Needed:

- Scratch paper
- Pencils
- Calculators
- White board
- Dry erase markers
- Computers with Internet connection
- Projector
- *Maths for Healthcare Professionals*  
[http://libguides.hull.ac.uk/ld.php?content\\_id=24181495](http://libguides.hull.ac.uk/ld.php?content_id=24181495)
- (Garza, D. and Becan-McBride, K., 2015) *Phlebotomy Handbook: Blood Specimen Collection from Basic to Advanced, 9<sup>th</sup> Edition*. New Jersey: Pearson.
- (Perspective Press, 2016) *The Pharmacy Technician: 6<sup>th</sup> Edition*. Englewood: Morton Publishing.
- GED® Testing Service (2014) Mathematics Formula Sheet & Explanation  
[https://ged.com/wp-content/uploads/math\\_formula\\_sheet.pdf](https://ged.com/wp-content/uploads/math_formula_sheet.pdf)
- McGraw-Hill Workforce (2018) *Workplace Skill Practice Workbook: Applied Mathematics*. McGraw-Hill Education. NOTE: Workbooks available in English or Spanish at CCRS Levels A-D  
<https://www.mheducation.com/prek-12/program/MKTSP-YCY08M0.html>

**Objectives:** Students will be able to:

- Mathematics: Measure and estimate lengths in standard units
- Convert like measurement units within a given measurement system
- Use ratio reasoning to convert measurement units
- Healthcare: Compute healthcare-relevant mathematic equations and apply expressions to workplace scenarios
- Utilize reasoning, logic and mathematical analysis to solve workplace-related measurement operations

### **Lesson Activities:**

1. Sign in. Hand out pencils, scratch paper, calculators
2. Warm Up:
  - a. 1 kilogram = how many lbs? Students use prior knowledge or computer. Teacher writes examples on board and students convert lbs to kilograms and kilograms to lbs.
3. Healthcare Contextualization & Direct Instruction:
  - a. Write Healthcare Ratio and Proportions Word Problem on the board. (Use *Phlebotomy* and *Pharmacy Technician* textbooks as a resource, or another industry-specific publication)
  - b. Demonstrate how to solve one or two sample problems
  - c. Students complete the rest individually. Write volunteer answers on the board and discuss the process.
4. Guided Practice:
  - a. Handout GED® Test Mathematics Formula Sheet to practice converting measurements
  - b. *Workplace Skills Practice Workbooks: Applied Mathematics*. Choose lessons related to ratio, proportions, and converting measurements and complete as a class.
5. Exploration Activities:
  - a. Handout: *Maths for Healthcare Professionals*  
[http://libguides.hull.ac.uk/ld.php?content\\_id=24181495](http://libguides.hull.ac.uk/ld.php?content_id=24181495)

- i. Students complete pg. 34 “Unit Conversion Exercise 1” #1 individually or in small groups using computers or prior knowledge. Review as a class.
  - b. Personalized Learning:
    - i. Provide students time to work online at their own pace with CASAS GOALS Academy. Instructor or administrator must set up student accounts in advance.  
<https://www.essential.com/educators/casas-academy>
6. Exit Ticket/Assessment:
  - a. Students complete *Maths for Healthcare Professionals* page 34 #2, 3, and 4 individually. Grade as a class and collect handouts to assess individual student understanding.

### **Differentiation:**

- Give extra help to students who need it; pair low-level with high-level students
- Use worksheets for tactile and visual learners
- Individual and Whole Class instruction
- Circulate room to provide additional assistance throughout applicable activities/exercises/worksheets
- CASAS GOALS Academy is an individualized program

## Construction

# Social Studies Unit 2 Geography and the World, Lesson 9: Classical Civilizations

**Lesson Summary:** In this lesson, students will understand the development and connectedness of Western civilization and other cultures in many areas of the world over time. Students will make relevant connections between ancient and modern history.

**Materials Needed:** Handouts, computers (if available)

**Objectives:** Students will be able to...

- ✓ Explain how ancient Greek society was influenced and shaped by its major geographic features
- ✓ Explain the conquest of Greece by Macedonia and the formation and spread of Hellenistic culture by Alexander the Great.
- ✓ Describe ancient Greek contributions in drama, poetry, history, sculpture, architecture, science, mathematics, and philosophy, with emphasis on Athens and Sparta
- ✓ Describe and define “democratic government”

## Instructional Activities

### 1. Introduction

- a. Discuss: “What is ‘civilization’?”
- b. For additional background, show this video/lesson on “What is Civilization? Definition & Explanation” at Study.com (must register with site to view): <https://study.com/academy/lesson/what-is-civilization-definition-lesson-quiz.html>

### 2. Direct Instruction: Ancient Civilizations

- a. By now, we have covered all the U.S. history topics, and students should be prepared with that information. But what should you know about World History to be prepared for the High School Equivalency Social Studies Test?
- b. It would take a lifetime of intense study to become well-versed in the historic details of all the cultures that have risen and fallen in the last 5,000 years. Two challenges in studying world history are deciding how much information you should store in your memory banks and developing a framework that helps to make your study meaningful.

- c. Be aware that the GED Test’s “Geography and the World” questions fall into the following categories:
  - i. In the theme “Development of Modern Liberties and Democracy,” test takers may see questions about “Development of classic civilizations”
  - ii. In the theme “Dynamic Responses in Societal Systems,” test takers may see questions about:
    - Relationships between the environment and societal development
    - Borders between peoples and nations
    - Human migration
- d. Today we are going to learn about the development of classic civilizations, especially their current impact on modern democracy, and also construction: Ancient Greeks (Athens and Sparta), Alexander the Great (Hellenistic Period), and the Roman Empire.

### 3. Construction Contextualization:

- a. The saying goes: “Rome wasn’t built in a day.” Yet many Roman structures are still standing after almost two thousand years. Introduce ancient Roman construction using a few example photos and descriptions from “Construction techniques of Ancient Rome” *Rome Art Lover*  
<https://www.romeartlover.it/Costroma.html>
- b. Practice key vocabulary words related to building arches.
- c. Khan Academy lesson: Greek Architecture  
<https://www.khanacademy.org/humanities/ancient-art-civilizations/greek-art/beginners-guide-greece/a/introduction-to-greek-architecture>
- d. Individually or in pairs, introduce three types of Greek columns using this matching game: “Ancient Greek Temple Building Game (printable)” (April 18, 2014) *Deceptively Educational*  
<https://deceptivelyeducational.blogspot.com/2014/04/ancient-greek-temple-building-game.html>

### 4. Exploration Activity 1: Ancient Greece

- a. One of the most important skills on the GED® Social Studies test is “Describe people, places, environments, processes, and events, and the connections between and among them.”
- b. To practice, explore lesson “Two faces of Greece: Athens and Sparta” at PBS.org

<https://www.pbs.org/empires/thegreeks/educational/lesson1.html>

- c. At the end of this lesson, students should be able to do the following:
  - i. Describe the people, environment, and major events from ancient Athens and Sparta.
  - ii. Write a 3-5 sentence paragraph making connections between ancient Athens, Sparta, and U.S. society today (ex: democracy, military, architecture).
  - iii. When giving feedback on these tasks, focus on the development of ideas instead of spelling, grammar, or word usage.
  
5. **Exploration Activity 2: Alexander the Great**
  - a. If there is time, verbally explain the long-term impact of Alexander the Great and the Hellenistic period.
  - b. Divide students into two teams to research and debate the question: “Was Alexander truly Great?” To prepare, students should read information on Alexander the Great from History.com, and cite evidence to support their argument:  
<https://www.history.com/topics/ancient-history/alexander-the-great>
  
6. **Personalized Learning:**
  - a. Give students time to learn and practice in the Social Studies section of GED® Academy (need to create an account for students in advance)  
<https://www.essentialed.com/educators/ged-academy>
  
7. **Exit Ticket: World History Quiz**
  - a. Have students test their knowledge on ancient civilizations by taking topical quizzes at Study.com (may need to register with an account) using “Chapter 7: World History (8000BCE to 600CE)”  
<https://study.com/academy/course/ged-social-studies.html>
  
8. **Differentiation Activities**
  - a. Beginner: If students do not pass the Study.com World History quiz, have them review the video lesson.
  - b. Accelerated: Have students write a social media profile for an important Greek figure. For a list of Greek characters with background information, see “Interview a Famous Greek” at PBS.org  
<https://www.pbs.org/empires/thegreeks/htmlver/>

# Infrastructure

## Science Lesson 7: Conservation, Transformation, and Flow of Energy

**Lesson Summary:** In this lesson, students will be introduced to the concepts of renewable and nonrenewable energy, types of energy (kinetic, potential, mechanical, electrical, chemical, light, sound), conduction and convection, and electromagnetic radiation. They will also consider the impact of conserving energy or using renewable energy sources, especially in the infrastructure industry.

**Materials Needed:** Handouts, computers (if available), Fan, Battery, Banana, Flashlight, Radio, Guitar, Candle, Waterfall (mini desk waterfall or a picture of a waterfall)

**Objectives:** Students will be able to...

- ✓ Gain an understanding of energy and its various forms in physical science
- ✓ Apply knowledge of energy and its various forms
- ✓ Describe and calculate an object's potential energy
- ✓ Describe and calculate an object's kinetic energy
- ✓ Describe and utilize the relationship between energy and work
- ✓ Describe transformation from one energy type to another by an object

### Introduction: What is Energy?

1. Ask students the question: "Can we ever run out of energy?"
  - a. Engage students in a discussion about renewable and nonrenewable energy. Explain renewable versus nonrenewable energy. Renewable can be replenished (e.g., water, wind, geothermal). Nonrenewable can be depleted (e.g., fossil fuels, nuclear). The US gets most of our energy from nonrenewable sources so paying attention to how we use, and waste, energy is important.

### Instructional Activities

1. **Infrastructure Contextualization:**
  - a. As more people and companies try to conserve energy, more jobs are created in the fields of renewable energy and utilities, and energy efficient technology. Electric vehicles are also going to transform transportation and logistics.
  - b. Explore jobs related the growing field of renewable energy infrastructure.

- i. Explore a list of jobs in the field of Mobile Equipment Maintenance (or similar) at DC Career Coach, and discuss how changes in energy use will impact these jobs:  
<https://careercoachdc.emsicc.com/browse-careers/16.1>
- c. Students take the O\*NET® Interest Profiler to see which jobs and industries fit their interests.
  - i. Students can use Virtual Job Shadow Account to take this mobile career assessment tool:  
<https://www.virtualjobshadow.com/features/#career-assessments>
  - ii. If no account, anyone can take the free web-based assessment (will not be saved) at <https://www.onetcenter.org/IP.html#web-based>

## 2. Activity 1: Identifying Types of Energy

- a. Types of energy: potential, kinetic, electrical, chemical, light, sound, and thermal
  - i. Use descriptions, photos, and videos from “Forms of Energy” by The Teachers Café to explain the different types:  
[https://theteacherscafe.com/Science/Energy\\_Forms.php](https://theteacherscafe.com/Science/Energy_Forms.php)
- b. Bring to class examples or images of the following objects. Have students identify the type of energy that is related to each item. You could set up stations around the room or turn it into a game in which the students earn points for each type of energy correctly identified.
  - i. Fan (Answer: Uses electrical energy; produces kinetic energy.)
  - ii. Battery (Answer: Stores chemical energy.)
  - iii. Banana (Answer: A source of chemical energy.)
  - iv. Flashlight (Answer: Uses chemical energy; produces light energy.)
  - v. Radio (Answer: Uses electrical energy; produces sound energy.)
  - vi. Guitar (Answer: Uses chemical energy from a person [energy from the food they eat]; produces sound energy.)
  - vii. Candle (Answer: Uses chemical energy; produces light and thermal energy.)
  - viii. Waterfall (Answer: The water has potential energy at the top of the falls and kinetic energy at the bottom of the falls.)

## 3. Activity 2: What’s Your Score?

- a. There is a growing field of jobs that make homes and apartment buildings more energy efficient. When a building uses less energy, this will reduce the cost of utilities. The Home Energy Score is a national rating system developed by the U.S. Department of Energy. The Score reflects the energy efficiency of a home based on the home’s structure and heating, cooling, and hot water systems.
- b. Have students go to this website to learn more about this rating system, and discuss how they might rate their own residence:



<https://betterbuildingsolutioncenter.energy.gov/home-energy-score/home-energy-score-about-score>

- c. If you are offline, use this handout “What Does My Score Mean?” by the U.S. Department of Energy  
<https://betterbuildingsolutioncenter.energy.gov/sites/default/files/attachments/What%20Does%20My%20Score%20Mean%20Fact%20Sheet.pdf>
- 4. Activity 3: Conduction**
- a. Have students take [Science 7: Conduction True/False Quiz](#) as a pre-assessment.
  - b. Show students Conduction Convection Radiation PowerPoint to explain this process:  
<https://drive.google.com/file/d/1PSFL5jvLkjH1c2qjgT8lyoviwaSjDIWU/view?usp=sharing>
- 5. Activity 4: Convection**
- a. How can rice, a table tennis ball and a ball bearing be used to demonstrate convection? An amazingly simple demo that students love. Push the table tennis ball to the bottom of the rice before showing it to the students. Then put the ball bearing on top. Shake the bowl vigorously and the ball bearing sinks. Continue shaking and the table tennis ball appears (and they love it!) Ask - “Why does this happen?” [Answer: Effectively you turn the rice into a fluid and so denser objects will sink and less dense ones will rise.
  - b. Review Convection using PowerPoint and notes to be filled in.
  - c. Have students take [Science 7: Convection True/False Quiz](#) as a post-assessment.
- 6. Personalized Learning:**
- a. Career Exploration Roadmap at Virtual Job Shadow: Give students time to watch videos or read more about careers they matched during their career interest assessment  
<https://www.virtualjobshadow.com/career-exploration/#exploration-roadmap>

### **Differentiation and Assessment:**

1. Discuss the 2016 Chevy Volt regenerative braking system:  
<https://www.youtube.com/watch?v=4AiKsoS1VsE>
2. Optional Assessment: Energy Quiz -  
<http://www.proprofs.com/quiz-school/story.php?title=physical-science-energy-unit-quiz>



## Science 7: Conduction True/False Quiz

1. Metals are good conductors of heat.	
2. Saucepans have plastic handles because plastics are good conductors of heat.	
3. The particles at the hot end of a metal rod vibrate vigorously.	
4. Gases are good conductors of heat.	
5. Plastic tablemats are good insulators; they prevent heat from hot food reaching and damaging the table.	
6. A thick piece of glass is a better insulator than two thin pieces with air in between.	
7. Conduction can only occur in solids.	
8. Non-metals are all good conductors of heat.	
9. Woven materials such as wool and cotton contain trapped air, and so are excellent insulators.	
10. Energy is passes from particle to particle during conduction.	



## Science 7: Convection True/False Quiz

Hot air falls and cool air rises.

Thermal energy can be transferred through solids by convection currents.

Hot water rises, cold waterfalls.

Thermal energy can be transferred through liquids and gases by convection currents.

# Law and Security

## Healthcare Module 5, ELA Lesson 2: Community Resources

**Skill Level:** NRS EFL(s) 3-5

### **Learner Prior Knowledge:**

- Familiarity with the field of law and security
- Ability to work in groups
- Basic communication skills

**Notes to instructor:** The length of time for this lesson is approximately one hour.

This lesson lists specific publications for group demonstration and individual practice problems. Updated resources may be available from the same publisher, or you may substitute with another publication that reinforces the same skillset.

Teacher will walk around during group work and individual work to check for understanding. Work through a concept/situation if individual student is struggling. Pause exercise and provide prompts if group is struggling. At the end of session, review worksheets for accuracy.

### **Materials Needed:**

- Computers with Internet connection
- Community Resources crossword puzzle
- Community Resources Research Worksheet
- Optional: Graph paper and ruler

**Objectives:** Students will be able to:

- Language Arts: Demonstrate command of the conventions of Standard English grammar and usage when writing and speaking
- Expand vocabulary related to community resources
- Law and security: Practice effective communication through exchange of verbal, nonverbal and paraverbal messages in the context of workplace relations
- Mathematics: Extend graphic reading

### **Lesson Activities:**

#### **1. Warm up: Defining Community Resources**

- a. Discussion: Why is it helpful to know community resources when working in law and security? How can they be helpful to citizens?

## 2. Direct Instruction: Community Resources Vocabulary

- a. Project or write words one at a time. Ask students to volunteer a definition. If no one is sure, offer a brief, one sentence definition.

Suicide Prevention	Grief Counseling
Mental Health	Food Pantries
Addiction Services	Education & Training
Domestic Violence	Medical Facilities
Aging Population	Veteran's Administration
Financial Services	Pregnancy Services
Family Resources	Parks and Recreation

- b. Briefly discuss when each category might be helpful while working in law or security.

## 3. Community Resources Search

- a. Ask students if there are any categories they would add to the list? Anything that they would search for using a different name (synonym)?
- b. Individually or in pairs, students search online for community resource centers in their local area. Use the [Community Resources Search worksheet](#) to note findings.
- c. You can use [211.org](http://211.org) or similar local directories to create a “key” listing one example each type of resource listed in the Community Resources crossword puzzle.
- d. For Education & Training resources, encourage students to use the “Browse Programs” page at DC Career Coach, which includes a map of DC <https://careercoachdc.emsicc.com/browse-programs>

## 4. Small Group Exploration Activity: Create a map of community resources.

Options:

- a. Using graph paper, students draw a grid map of their city incorporating the community resource centers from the web search. Students should utilize a ruler or measurement tool to accurately mark distances and include a key.
- b. Students can create an online map using [www.MapCustomizer.com](http://www.MapCustomizer.com). During their search, students must collect addresses and a brief title/description to generate the map. If students need additional help

with maps, see “Using Google Maps” at GCF Learn Free  
<https://edu.gcfglobal.org/en/google-maps/using-google-maps/1/>

- c. Use Google Maps to print maps of the neighborhood where your class is located, zoomed to the level where they can read most street names. Ask students to use the street names and their personal knowledge to plot and label an estimated location of nearby resources.

## 5. Teach Back

- a. Ask small groups or individual students to share new community resources that they found. Continue to make connections about when each might be helpful while working in law or security.
- b. Encourage students to search for community resources whenever they start a new job or move to a new area.

### **Differentiation:**

- Provide extra support to students and offer suggestions to prompt brainstorming, if necessary
- Structure small groups to include low-level and high-level students
- Pair higher-level students with low-level to help solve problems
- Individual, small group and/or whole class instruction, depending on class needs
- Utilize projector to display excerpt to class; or use large print if necessary, for those struggling to read individually
- Utilize resources including computer with Internet and/or dictionaries to support vocabulary acquisition
- Circulate room to provide additional assistance throughout applicable activities/exercises/worksheets
- Use projector and worksheets for tactile and visual learners



**Community Resources Search:**  
**(Name of your city or neighborhood)**

---

Name of organization:  
\_\_\_\_\_

Type of organization:  
\_\_\_\_\_

Address:  
\_\_\_\_\_

Phone number:  
\_\_\_\_\_

Website:  
\_\_\_\_\_

Two free services offered:  
\_\_\_\_\_

Name of organization:  
\_\_\_\_\_

Type of organization:  
\_\_\_\_\_

Address:  
\_\_\_\_\_

Phone number:  
\_\_\_\_\_

Website:  
\_\_\_\_\_

Two free services offered:  
\_\_\_\_\_

Name of organization:  
\_\_\_\_\_

Type of organization:  
\_\_\_\_\_

Address:  
\_\_\_\_\_

Phone number:  
\_\_\_\_\_

Website:  
\_\_\_\_\_

Two free services offered:  
\_\_\_\_\_

# Early Childhood Education

## Hospitality Week 4, Day A: Containers

**Skill Level:** NRS EFL(s) 1-4

**Time Frame:** 2.5 hours

**Learner Outcome(s):** Students will distinguish appropriate containers for food packaging.

### Materials/Resources Needed:

- Dry erase board or flip chart & marker
- List of containers: bowl, box, can, jar, bag, spoon. You may want to make large cards with the words on them to assist with the lesson.
- Pictures on page 74 of Adelson-Goldstein, J & Shapiro, N. (2016) *Oxford Picture Dictionary Third Edition: Monolingual American English*. Oxford University Press. [https://elt.oup.com/catalogue/items/global/dictionaries/oxford\\_picture\\_dictionary\\_third\\_edition/](https://elt.oup.com/catalogue/items/global/dictionaries/oxford_picture_dictionary_third_edition/)
- Activities and worksheets on pages 97, 100, 109-116 from Simcoe/Muskoka Literacy Network (2008) *Bridging the Employment Gap*. Human Resources and Social Development Canada [http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap_manual_kitchen.pdf)

### Lesson Activities:

#### 1. Naming Containers

- Teacher will display a variety of empty, clean containers from the vocabulary list. These are also available in *Oxford Picture Dictionary, 3<sup>rd</sup> edition* (2016) on page 74.
- **Vocabulary:** bowl, box, can, jar, bag, spoon. For some of the objects, bring three to five different sizes of the same object (nesting bowls are great!).
- As the teacher selects a container, hold it up for all to see. Note: At this point, just say the name of the object, even if it is a repeat name of another size object. For example, say “bag” not “small bag.” Small, medium and large will be introduced in the next section.
- After naming all the objects, teacher picks up one at random. Teacher says, “What is this called?” After students guess, say the correct name of the

object. Students repeat the name. Put object aside until all have been practiced.

## 2. Sorting by Size: Small, Medium, and Large

- Pull out your differently sized bowls, boxes, bags, etc.
- Start with one set of objects (ex: bag). First, ask students “What is this called?” After repeating the name, show three different sizes, and say the size: “Small, medium, large.”
- Repeat with three sizes for multiple objects.
- Next add “smallest” and “largest” to make five different sizes: smallest, small, medium, large, largest.
- Mix up the sizes of one object. Ask students to put the objects in order from smallest to largest.
- This activity is modified from “Sorting by Size” on page 97 in *Bridging the Employment Gap*  
[http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap_manual_kitchen.pdf)
- If you would like to print and cut worksheets for students to practice with paper instead of objects, use pages 109-116 in *Bridging the Employment Gap*.
- For a variation on this sorting activity that involves reading labels, see *Bridging the Employment Gap* page 100.

## 3. Extension: Container Sentences

- After displaying all containers, teacher will orally give related sentences with every 5<sup>th</sup> word missing (CLOZE sentences). Students can give the correct answer out loud.
- Next, give students a vocabulary word and ask them to make a sentence about the word (Ex: I put cereal in my bowl).
- Language Experience Approach: As students say the sentence, write it on the board or chart using correct spelling, grammar, and word usage.
- After writing it out, have students read the sentence aloud together.
- Repeat until you are out of vocabulary words, or attention.

### Assessment/Differentiation Ideas:

**Review:** Teacher reviews vocabulary words with pictures, pronunciations, and/or games.

**Demonstration Assessment:** “Sort Them Out” in *Bridging the Employment Gap* pages 117-128:

[http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap_manual_kitchen.pdf)



## All Web Links by Industry

### **Resources Available to OSSE Adult Education & Training Instructors**

Resources for OSSE Adult Education Providers and Partners

<https://osse.dc.gov/page/adult-education-providers-and-partners#resources>

Contact [osse.afeta@dc.gov](mailto:osse.afeta@dc.gov) with specific questions about resource availability

DC WORKS <https://www.dcnetworks.org/>

Career Coach DC <https://careercoachdc.emsicc.com/>

Essential Education (must request a login from site administrator):

CASAS Academy <https://www.essentialed.com/educators/casas-academy>

Computer Essentials <https://www.essentialed.com/educators/computer-essentials>

GED® Academy <https://www.essentialed.com/educators/ged-academy>

Money Essentials <https://www.essentialed.com/educators/money-essentials>

Work Essentials <https://www.essentialed.com/educators/work-essentials>

Virtual Job Shadow (must request a login from site administrator)

<https://www.virtualjobshadow.com/>

“To request access to these products, submit an email to [OSSE.AFETA@dc.gov](mailto:OSSE.AFETA@dc.gov) which includes the product for which you are requesting access, your name, email, and phone number as well as your agency name, address, and website. Please include your mission statement and the primary population that your agency serves.”

The NorthStar Digital Literacy Assessment (click “Build Your Skills” for free resources)

<https://www.digitalliteracyassessment.org/>

OSSE Web-Based Assessment and Instructional Resources for DC Providers and Partners

[https://osse.dc.gov/sites/default/files/dc/sites/osse/page\\_content/attachments/OSSE%20Resources%20for%20DC%20Providers%20and%20Partners%204.29.20.pdf](https://osse.dc.gov/sites/default/files/dc/sites/osse/page_content/attachments/OSSE%20Resources%20for%20DC%20Providers%20and%20Partners%204.29.20.pdf)

EdTech Center at World Education: Tips for Distance Learning

<https://edtech.worlded.org/tips-for-distance-learning/>

National Skills Coalition: Worker Stories (highlighting the importance of skills training)

<https://www.nationalskillscoalition.org/networks/voices-for-skills/worker-stories/>

## **Forward**

Mustard Seed Training [blog.mustseed.org](http://blog.mustseed.org)

License: [CC BY-NC-SA 3.0 Common Core Attribution-NonCommercial-ShareAlike 3.0 Unported](https://creativecommons.org/licenses/by-nc-sa/3.0/)

Source of Lesson Plans: The Literacy Cooperative of Greater Cleveland (2019, 2020)  
*Contextualized Curriculum*

Please register for free access to additional lesson plans for five industries:  
<https://www.literacycooperative.org/contextualized-curriculum/>

Farrell, Meagen (2013) *Teaching Adults: A GED Test Resource Book*. New Readers Press: Syracuse, NY. <https://www.newreaderspress.com/teaching-adults-ged>

## **IT, Business Administration & Finance**

MathisFun.com (2019) "Order of Operations: PEMDAS"  
<http://www.mathsisfun.com/operation-order-pemdas.html>

Khan Academy (2019) "Variables, expressions, & equations"  
<https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-intro-equations/v/variables-expressions-and-equations>

MS Word file with partially completed Invoice: The Literacy Cooperative of Greater Cleveland (2019) "Digital Literacy Lesson 6 Invoice."  
<https://drive.google.com/open?id=1kh9eqTRFZlpZTisWptymEV9-lpp01z-h>

FactswithFowler (2015) "Lesson 2 - Hourly Wage"  
<https://www.youtube.com/watch?v=fgT1Pe7YXlk>

Richards, A. (2017) "Hourly Rate and Overtime Rate." Ontario, CA.  
<https://www.youtube.com/watch?v=yHRuXVipIU0>

Esser, P. (2016) "Gross Earning: Commissions-Math with Business Applications, Payroll Unit." Southwest Tech Math/Science Center, Fennimore, WI.  
<https://www.youtube.com/watch?v=J-Xk5vCnhPk>

Esser, P. (2013) "Payroll" Southwest Tech Math/Science Center, Fennimore, WI.  
<https://sites.google.com/site/swtcbusmath/home/payroll>

Khan Academy (2019) "Introduction to Algebra"  
<https://www.khanacademy.org/math/algebra/introduction-to-algebra>

Khan Academy (2019) “Appropriate Units”

<https://www.khanacademy.org/math/algebra/units-in-modeling/appropriate-units/v/appropriate-units>

**Highlighted Certification:** Certiport’s IC3 Digital Literacy Certification

<https://certiport.pearsonvue.com/Certifications/IC3/Digital-Literacy-Certification/Overview.aspx>

**Highlighted Certification & Resource:** Northstar Digital Literacy Assessment

<https://www.digitalliteracyassessment.org/>

**Highlighted Program:** Academy of Hope (Adult Public Charter School) Technology Workforce and Skills Programs <https://aohdc.org/about-us/college-careers/>

## **Hospitality**

Adelson-Goldstein, J & Shapiro, N. (2016) *Oxford Picture Dictionary Third Edition: Monolingual American English*. Oxford University Press.

[https://elt.oup.com/catalogue/items/global/dictionaries/oxford\\_picture\\_dictionary\\_third\\_edition/](https://elt.oup.com/catalogue/items/global/dictionaries/oxford_picture_dictionary_third_edition/)

ServSafe Food Handler Course & Certification (National Restaurant Association)

<https://www.servsafe.com/ServSafe-Food-Handler>

Simcoe/Muskoka Literacy Network (2008) *Bridging the Employment Gap: Kitchen Help*. Orillia, ON.

[http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgegap_manual_kitchen.pdf)

Handout: “I Can Do It” page 49

Optional: Additional learning activities and demonstration assessment in “Safety in the Workplace” unit, pages 23-72

**Highlighted Certification:** ServSafe (National Restaurant Association)

Instructors/Proctors <https://www.servsafe.com/Instructors-Proctors>

**Highlighted Resource:** DC Works <https://www.dcnetworks.org/> or search/explore “Browse Careers” page at Career Coach DC

<https://careercoachdc.emsicc.com/browse-careers>

**Highlighted Program:** DC Central Kitchen

<https://dcentralkitchen.org/wp-content/uploads/2018/05/DCCK-Trifold-2018.pdf>

## **Healthcare**

*Maths for Healthcare Professionals*

[http://libguides.hull.ac.uk/ld.php?content\\_id=24181495](http://libguides.hull.ac.uk/ld.php?content_id=24181495)

GED® Testing Service (2014) Mathematics Formula Sheet & Explanation

[https://ged.com/wp-content/uploads/math\\_formula\\_sheet.pdf](https://ged.com/wp-content/uploads/math_formula_sheet.pdf)

McGraw-Hill Workforce (2018) *Workplace Skill Practice Workbook: Applied Mathematics*. McGraw-Hill Education. NOTE: Workbooks available in English or Spanish at CCRS Levels A-D

<https://www.mheducation.com/prek-12/program/MKTSP-YCY08M0.html>

**Highlighted Resource:** CASAS GOALS Academy

<https://www.essentialed.com/educators/casas-academy>

**Highlighted Certification:** National Healthcareer Association (NHA) Phlebotomy Technician <https://certportal-store.nhanow.com/category/professions/cpt2/>

**Highlighted Program:** University of the District of Columbia Community College, Division of Workforce Development and Lifelong Learning, Career Pathways

<https://www.udc.edu/cc/workforce-development/career-pathways/>

## **Construction**

“What is Civilization? Definition & Explanation” at Study.com (must register with site to view): <https://study.com/academy/lesson/what-is-civilization-definition-lesson-quiz.html>

“Construction techniques of Ancient Rome” *Rome Art Lover*

<https://www.romeartlover.it/Costroma.html>

Khan Academy lesson: Greek Architecture

<https://www.khanacademy.org/humanities/ancient-art-civilizations/greek-art/beginners-guide-greece/a/introduction-to-greek-architecture>

“Ancient Greek Temple Building Game (printable)” (April 18, 2014) *Deceptively Educational*

<https://deceptivelyeducational.blogspot.com/2014/04/ancient-greek-temple-building-game.html>

“Two faces of Greece: Athens and Sparta” at PBS.org

<https://www.pbs.org/empires/thegreeks/educational/lesson1.html>



“Alexander the Great” from History.com:

<https://www.history.com/topics/ancient-history/alexander-the-great>

Topical quizzes at Study.com (may need to register with an account) using “Chapter 7: World History (8000BCE to 600CE)”

<https://study.com/academy/course/ged-social-studies.html>

“Interview a Famous Greek” at PBS.org

<https://www.pbs.org/empires/thegreeks/htmlver/>

**Highlighted Resource:** GED® Academy by Essential Education

<https://www.essentialed.com/educators/ged-academy>

**Highlighted Certification:** National Center for Construction Education and Research (NCCER) Core Certification

<http://www.nccer.org/workforce-development-programs/disciplines/craft-details/core>

**Highlighted Program:** YouthBuild Public Charter School

<https://www.youthbuildpcs.org/>

## **Infrastructure**

**Highlighted Resource:** Mobile Equipment Maintenance jobs at DC Career Coach

<https://careercoachdc.emsicc.com/browse-careers/16.1>

**Highlighted Resource:** Virtual Job Shadow’s career assessments

<https://www.virtualjobshadow.com/features/#career-assessments>

Better Buildings® “About the Home Energy Score™” by U.S. Department of Energy

<https://betterbuildingssolutioncenter.energy.gov/home-energy-score/home-energy-score-about-score>

Handout: “What Does My Score Mean?” by Better Buildings® at the U.S. Department of Energy

<https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/What%20Does%20My%20Score%20Mean%20Fact%20Sheet.pdf>

Conduction Convection Radiation PowerPoint:

<https://drive.google.com/file/d/1PSFL5jvLkjH1c2qjgT8lyoviwaSjDIWU/view?usp=sharing>

“2016 Chevy Volt Regenerative Braking” by YouTube user *Michael Chevrolet*  
<https://www.youtube.com/watch?v=4AiKsoS1VsE>

“Physical Science – Energy Unit Quiz” (2013) by Vanrhoads at ProProfs Quizzes  
<http://www.proprofs.com/quiz-school/story.php?title=physical-science-energy-unit-quiz>

**Highlighted Certification:** Building Maintenance Service Technician Certification (EPA 608) <https://www.epatest.com/store/products/epa608/>

**Highlighted Program:** So Others Might Eat (SOME)  
<https://some.org/services/job-training/prospective-students>

## **Law and Security**

Find community resources at [211.org](http://211.org)

**Highlighted Resource:** “Browse Programs” using DC Career Coach  
<https://careercoachdc.emsicc.com/browse-programs>

Map Customizer (powered by Google Maps) [www.MapCustomizer.com](http://www.MapCustomizer.com)

“Using Google Maps” at GCF Learn Free  
<https://edu.gcfglobal.org/en/google-maps/using-google-maps/1/>

**Highlighted Certification:** Physical Security Certification from Center for the Development of Security Excellence  
<https://www.cdse.edu/Certification/About-SP%C4%93D-Certification/Physical-Security-Certification/>

**Highlighted Program:** Careers through Facilities Management (Physical Safety) at Congress Heights Community Training & Development Corporation  
<https://chctdc.org/>

## **Early Childhood Education**

Adelson-Goldstein, J & Shapiro, N. (2016) *Oxford Picture Dictionary Third Edition: Monolingual American English*. Oxford University Press.  
[https://elt.oup.com/catalogue/items/global/dictionaries/oxford\\_picture\\_dictionary\\_third\\_edition/](https://elt.oup.com/catalogue/items/global/dictionaries/oxford_picture_dictionary_third_edition/)

Simcoe/Muskoka Literacy Network (2008) *Bridging the Employment Gap*. Human Resources and Social Development Canada

[http://literacynetwork.ca/wp-content/uploads/2014/06/bridgethergap\\_manual\\_kitchen.pdf](http://literacynetwork.ca/wp-content/uploads/2014/06/bridgethergap_manual_kitchen.pdf)

**Highlighted Resource:** Department of Employment Services, Washington D.C. Economic Insights <https://does.dc.gov/page/labor-statistics>

**Highlighted Certification:** T.E.A.C.H. D.C. Early Childhood® Washington, D.C. <https://osse.dc.gov/node/1258311>

**Highlighted Program:** University of the District of Columbia: [Career Pathways](#), [Associate of Arts](#), [BA in Pre-K to 3<sup>rd</sup> grade](#), [BA in Human Development](#), [MA in Early Childhood Education](#)