# **NSDAR Educational Resources Committee**

Daughters of the American Revolution

Military Math - Happy Birthday US Army

**Contributor:** Barbara Genter Davis **Grade Level:** 5<sup>th</sup> – 8<sup>th</sup>

#### 1. Identify the standards to be addressed:

5<sup>th</sup> – 8<sup>th</sup> - Michigan – Addresses Common Core Standards and Addresses State Standards

#### Reading:

#### **Key Ideas and Details:**

CCSS.ELA-Literacy.RI.5.1 - Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from a text.

CCSS.ELA-Literacy.RI.5.2 - Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

CCSS.ELA-Literacy.RI.5.3 - Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.

#### **Craft and Structure:**

CCSS.ELA-Literacy.RI5.4 - Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

CCSS.ELA-Literacy.RI5.5 - Compare and contrast the overall structure(e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts.

#### Integration of Knowledge and Ideas:

CCSS.ELA-Literacy.RI.5.7

Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

https://www.thecorestandards.org/ELA-Literacy/W/5/

#### Math:

#### **Number and Operations in Base Ten**

# 5.nBt Understand the place value system.

- 1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
- 3. Read, write, and compare decimals to thousandths.
- a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form.
- 4. Use place value understanding to round decimals to any place.

#### Perform operations with multi-digit whole numbers and with decimals to hundredths.

- 5. Fluently multiply multi-digit whole numbers using the standard algorithm.
- 7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

#### Number and operations—fractions

5.nf Apply and extend previous understandings of multiplication and division to multiply and divide

#### fractions.

- 3. Interpret a fraction as division of the numerator by the denominator ( $a/b = a \div b$ ). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.
- 4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
- a. Interpret the product  $(a/b) \times q$  as a part of a partition of q into b equal parts; equivalently, as the result of a sequence of operations  $a \times q \div b$ .
- 5. Interpret multiplication as scaling (resizing), by:
- a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

#### **Social Studies:**

#### **National Standards for Historical Thinking:**

HI Historical Habits of Mind - 1.2 Historical Analysis and Interpretation

## U3 USHG ERA 3 Revolution and the New Nation (1754-1800)

- U3.1 Causes of the American Revolution: Identifying the major political, economic, and ideological reasons for the American Revolution.
- 5 U3.1.4 Describe the role of the First and Second Continental Congress in unifying the colonies (addressing the Intolerable Acts, declaring independence, drafting the Articles of Confederation).
- 5 U3.1.8 Identify a problem confronting people in the colonies, identify alternative choices for addressing the problem with possible consequences, and describe the course of action taken.

#### 2. Statement of the objective and lesson outcomes:

Students will begin to understand the reasons and costs associated with forming the new Continental Army in 1775. Students will read and collect data from a primary source document to determine how much money the Continental Congress agreed to pay each soldier based on his rank in the first riflemen companies, and in turn, how much money was needed to pay each company on a monthly basis. Students will use mathematical skills of rounding, multiplication, and addition, as well as informational reading skills, to determine the answers to the questions on the worksheet, and to learn more information about the foundations of the US Army.

# 3. Materials, resources, and technology to be used by teacher/students:

- 1. Textbook pages (if applicable) about the Second Continental Congress and George Washington's appointment as Commander-in-Chief of the Continental Army
- 2. Background information to read with students:

Appointment as Commander in Chief - Mount Vernon

Siege of Boston - Mount Vernon

3. Optional video clips -

George Washington's Appointment - John Adams Miniseries

Liberty's Kids - The Second Continental Congress

George Washington, A Novice General

George Washington and the Continental Army

4. Primary source document - one copy for each student:

Resolution of Continental Congress Adopting the Continental Army, 14 June 1775

5. Continental Army: Military Math Worksheet - one copy for each student: Military Math Worksheet

6. 10-12 count pack of colored pencils or thin line markers for each pair of students to share

## 4. Introduction of the topic:

In the years following the French and Indian War (1754-63), Britain faced enormous debt and looked to the Colonies to pay this debt. For years, Britain levied ever increasing taxes on trade and commerce which caused, in turn, ever increasing unrest among the Colonies. This frustration was escalated by the lack of representation in Parliament, commonly referred to as "taxation without representation."

By April 1775, this situation had reached a breaking point. Patriot leaders had trained militias to prepare for armed conflict. On April 18, 1775 Patriots Paul Revere and Williams Dawes left Boston and rode to Concord to warn of an impending British attack. On April 19, this attack erupted into open conflict in the towns of Lexington and Concord, Massachusetts, marking the start of the American Revolution. Though defeated in Lexington, the colonial militia prevailed in Concord, resulting in the British retreat back to Boston.

The Second Continental Congress began on May 10, 1775. The Continental Army was formed to represent the Thirteen Colonies on June 14, 1775 by a resolution during the Second Continental Congress. The Continental Congress voted to create the Continental Army as a united colonial response against the British enemy. This new Continental Army was to be comprised of 10 companies of riflemen. The riflemen were intended to serve as light infantry. The Continental Army also adopted the forces already in place in Boston and New York, which included 22,000 and 5,000 troops, respectively. George Washington was elected the Commander-in-Chief the following day..

#### 5. Procedure for instruction:

- 1. Begin the lesson by reading background information from a textbook (if available), or from the information provided in the resource list above. This information will help to set the stage for the necessity of forming the Continental Army on 14 June 1775.
- 2. Show optional video clip(s) as desired to support background knowledge of the topic.
- 3. Project a copy of the primary source document "Resolution of Continental Congress Adopting the Continental Army, 14 June 1775" on a screen that is visible to all students.
- 4. Together, the teacher and students will read the primary source document.
- 5. Pass out a copy of the primary source document to each student.

6. Model for students how to identify and underline information in the text to determine the rates of pay for each rank in the first riflemen companies of the Continental Army. Work with students to underline information with the following color-code for the ranks of Captain and Lieutenant. This will serve as a model for how students will proceed with gathering the remainder of the information:

Captain - underline in RED

Lieutenants - underline in BLUE

Serjeants - underline in GREEN

Corporals - underline in PURPLE

**Drummer or Trumpeter** - underline in **ORANGE** 

Privates - underline in BROWN

- 7. Students will finish locating and color-coding each company rank and pay scale.
- 8. Pass out a copy of the "Military Math US Army 1775 Company Costs" worksheet to each student. Read the worksheet directions together.
- 9. Model for students how to transfer the color-coded information for the ranks of Captain and Lieutenant from the primary source document to the data chart on the "Military Math" worksheet.
- 10. Remind students to round to the nearest cent for pay rates that are a fraction of a dollar ( $\frac{1}{2}$  = \$.33 and  $\frac{3}{2}$  = \$.67)
- 11. Individually or with a partner, students will proceed to underline and transfer the remaining information to the chart on their worksheet.
- 12. Upon completion of the transfer of data to the Military Math worksheet chart, students will use a separate sheet of paper to show their computation to determine the monthly cost for each rank per month. (Worksheet column #3)
- 13. After students have completed the computation for the chart on the worksheet, they will work with a partner or small group to check the accuracy of their answers.
- 14. After a computation check has been completed, students will determine the monthly cost required to pay a single company of riflemen in 1775 and in today's dollars.
- 15. Students will go to the website listed on the worksheet to convert the 1775 costs to today's dollar amount to better understand the monthly cost of the original rifle companies. Record today's dollar amount on the Military Math worksheet.
- 16. Optional Extension Questions (worksheet p.2): Teachers may decide to have students complete the extension questions, or the teacher may work with the entire class to complete the extension questions together.
- 17. Students will attach their computation page(s) to the Military Math worksheet which will be handed in to the teacher for assessment.

# 6. Lesson Closure:

Ask students questions related to the costs and the establishment of the first official companies of the Continental Army:

Did the pay rates seem fair for each rank in a company? Why or why not? Where might the funding come from?

How might the first leaders of each company go about enlisting men to serve?

What would be some of the challenges that George Washington, the first Commander in Chief of the Continental Army, would face in raising and commanding the new army?

If you were living during this time period, would you consider enlisting in the new Continental Army? Why or why not?

After discussion, students will turn in their worksheets, with their computation pages attached, to the teacher for assessment.

# 7. Assessment of Understanding:

Students will exhibit their understanding of the information in this lesson by accurately completing the chart and computations on the Military Math worksheet. Students will show their understanding of the content of this lesson by participating in the follow up questions and by turning in their completedworksheet and computation pages to the teacher.

# Resolution of the Continental Congress Adopting the Continental Army, 14 June 1775

The resolutions being read, were adopted as follows:

Resolved, That six companies of expert rifleman, be immediately raised in Pensylvania, two in Maryland, and two in Virginia; that each company consist of a captain, three lieutenants, four serjeants, four corporals, a drummer or trumpeter, and sixty-eight privates.

That each company, as soon as compleated, shall march and join the army near Boston, to be there employed as light infantry, under the command of the chief Officer in that army.

That the pay of the Officers and privates be as follows, viz. a captain @ 20 dollars per month; a lieutenant 13 1/3 dollars; a serjeant @ 8 dollars; a corporal @a 7 1/3 dollars; drummer or [trumpeter] @ 7 1/3 doll.; privates @a 6 2/3 dollars; to find their own arms and cloaths.

That the form of the enlistment be in the following words:

I have, this day, voluntarily enlisted myself, as a soldier, in the American continental army, for one year, unless sooner discharged: And I do bind myself to conform, in all instances, to such rules and regulations, as are, or shall be, established for the government of the said Army.

Upon motion, *Resolved*, That Mr. [George] Washington, Mr. [Philip] Schuyler, Mr. [Silas] Deane, Mr. [Thomas] Cushing, and Mr. [Joseph] Hewes be a committee to bring in a draft of Rules and regulations for the government of the army.

https://www.history.army.mil/books/revwar/ss/revdoc.htm

Name:					

# Military Math - US Army 1775 Riflemen Company Costs

- 1. Use the primary source document "Resolution of the Continental Congress Adopting the Continental Army, 14 June 1775" to complete the chart below.
- 2. Column #1: List the number of officers and privates as stated on the primary source.
- 3. Column #2: Record the cost that the Continental Congress would need to pay each rank on a monthly basis. Round each amount to the nearest cent ( $\frac{1}{3}$  \$.33 and  $\frac{2}{3}$  = \$.67).
- 4. Column #3: Determine the total monthly cost for each rank in a company and the overall cost for an entire company. Show your computations on a separate sheet of paper.

Riflemen Company Ranks	#1. Number of each rank per company	#2. Pay per month for each rank	#3. Total monthly cost per rank for each company
Captains	х	\$	= \$
Lieutenants	х	\$	= \$
Serjeants	х	\$	= \$
Corporals	х	\$	= \$
Drummer or Trumpeter	х	\$	= \$
Privates	х	\$	= \$
	Add column #1: Total number of soldiers in each company		Add column #3: Total cost per company

How much would each riflemen company cost in today's dollars?						
Use this website to find out:	officialdata.org	Officialdata.org				
Monthly cost per company in today's dollars = \$						

# **Optional extension questions:**

1.	How many riflemen compan June 1775? Look back at th	5	_
2.	Using your answer to questi companies of the Continenta	•	• • •
	Number of init	ial companies	
	Total cost	per company X \$	
	Monthly cost for riflemen	companies = \$	
3.	How much would it cost the companies for one year? Sh	•	-
	Monthly cost for rifleme	n companies \$	
		x	12 months
,	Yearly cost for all riflemen co	mpanies = \$	
4.	Convert 1775 costs to today	's dollar amounts:	
	Use this website - Office	cialdata.org Offic	<u>ialdata.org</u>
		1775 Cost	Today's Cost
	Monthly total for each riflemen company	\$	\$
	Monthly cost for all original riflemen companies	\$	\$
	Yearly cost for all original riflemen companies	\$	\$