## **Teacher Instructions**

The attached student projects rely on a modified version of the postal ledgers used by Benjamin Franklin created by APS Museum Guide Craig Fox. If interested in learning how the modified ledger was created, <u>read this post about the process</u>. In addition to the assignments below, we encourage you to make your own assignments involving the ledgers to explore different topics and to fit the needs of your students and classroom. You can also use the data (found <u>here</u>) to make your own ledgers and explore other data.

Share what you make with us at MuseumEducation@AmPhilSoc.org!

### **Modified Ledgers**

Again, you can also use the data (found here) to make your own ledgers and explore other data.

The last page of this PDF contains the modified ledger used for these activities.

Here's a link to the modified ledger in Google Sheets as well.

### Useful Resources and Further Learning

More Educator Resources

https://www.amphilsoc.org/educator-resources

Want to learn more about the Franklin Postal Project? Check out these links

https://diglib.amphilsoc.org/franklindata/

https://www.amphilsoc.org/blog/introducing-franklins-philadelphia-post-office-ledgers

#### Help Expand These Records

Postal records like these can be hard to find because they sometimes weren't considered valuable enough to put in an archive! But to tell a fuller story about relationships between people and places in colonial British North America, we'd love to be able to connect our records from Philadelphia to similar postal records from the other twelve colonies. We could use your help! If you know of any account books, postal records, or other data sources related to the postal service prior to 1800, please let us know at digitalprojects@amphilsoc.org.



# Addition, Subtraction and Conversion: Student Instructions

One of the many ways Franklin improved the postal system was to devise a series of ledgers that standardized the information recorded and made a concrete system of record keeping of letters. Look at the information in the ledger and use it to answer the questions below.

## **Helpful Conversions**

1 featherweight (dwt) = 24 grains (grs) 1 grain (gr) = 1/7000 pound (lb)

#### Questions

- 1. On June 11, 1767 (Time of Receiving): How many featherweights (dwt) of unpaid letters were received?
- 2. How many grains (grs) were paid for on June 6, 1767 (Date of the Bills received)?
- 3. How many unpaid letters were received from Boston from June 6, 1767 to June 18th, 1767?
- 4. Way letters were letters picked up on the way from a location. Add up the way letters coming from each location. Which location had the most? How much more are from that location compared to all the other locations?
- 5. On June 10, 1767 how many pounds of unpaid letters were received?
- 6. Are there more undercharged or overcharged letters in featherweights on June 11, 1767 and by how much?
- 7. How many grains of letters were mis-sent during the whole time period of the ledger?



# Fractions, Percentages, and Ratios: Student Instructions

One of the many ways Franklin improved the postal system was to devise a series of ledgers that standardized the information recorded and made a concrete system of record keeping of letters. Look at the information in the ledger and use it to answer the questions below.

### Questions

- 1. What is the ratio of unpaid letters to paid letters received on June 6th, 1767?
- 2. Do we still send unpaid letters? What does this show you about the mail system in the mid-1700s?
- 3. From June 6th to June 12th 1767 what percentage of letters are from New York? What about Boston?
- 4. At the time there were roughly two million people in the Thirteen Colonies. New York had about 16,000 people, and Boston had about 15,000 people. Compare these proportions to those of the number of letters you found in Question 3. Is there a discrepancy? If so, what do you think could be the cause of it?
- 5. What fraction of entries from June 12th to June 18th 1767 have the same time of receiving and date of the bills received? What fraction is the time of receiving and date of the bills received within two days?
- 6. Is there a pattern between which places have shorter differences? How does this compare to the modern mail system's speed?



Time of Receiving	Name of the Offices and Ships,	Date of the Bills received	Unpaid Letters re		Way Letters re		Undercharged from oth		Overcharged from other		Paid Letters from other		Forwarded to other other Offices being r		Number paid for
Time of Receiving	from whence they were received.	Date of the Bills received	Dwt.	Grs.	Dwt.	Grs.	Dwt.	Grs.	Dwt.	Grs.	Dwt.	Grs.	Dwt.	Grs	Number paid for
Jun 6, 1767	Boston	May 28, 1767	34								4				
Jun 6, 1767	New York	Jun 5, 1767	90	16							8				
Jun 6, 1767	Brunswick	Jun 6, 1767	1	8											
Jun 6, 1767	Princetown	Jun 6, 1767	1	8							2	16			
Jun 6, 1767	Trenton	Jun 6, 1767	1	8											
Jun 9, 1767	Portsmouth	May 29, 1767	4	16							4	16			
Jun 9, 1767	Newbury	May 29, 1767	4	16											
Jun 9, 1767	Boston	Jun 1, 1767	50												
Jun 9, 1767	Newport	Jun 2, 1767	4												
Jun 9, 1767	New York	Jun 8, 1767	166		24						8			8	
Jun 9, 1767	Brunswick	Jun 8, 1767	6	16				1	8		3	8			
Jun 10, 1767	Cambridge	Jun 2, 1767	5	8											
Jun 10, 1767	Talbot	Jun 6, 1767	10	16											
Jun 10, 1767	Newtown	Jun 8, 1767	13	8	8										
Jun 10, 1767	Fredricktown	Jun 8, 1767	10												
Jun 11, 1767	Yorklown	May 26, 1767	5					8							
Jun 11, 1767	W Burg	May 30, 1767	12	16					8						
Jun 11, 1767	F. Burg	Jun 5, 1767	6	16			3	8							
Jun 11, 1767	Marlborough	Jun 7, 1767	2	16											
Jun 11, 1767	Annapolis	Jun 7, 1767	42	16	2	16	5	8			2	16			
Jun 11, 1767	Baltimore	Jun 8, 1767	34	16							8	7			
Jun 11, 1767	Charlestown	Jun 10, 1767									6				
Jun 11, 1767	Wilmington	Jun 10, 1767			14								4		
Jun 11, 1767	Lancaster	Jun 9, 1767	4								4				
Jun 11, 1767	New York	Jun 10, 1767	92		17	8					16		1	8	
Jun 11, 1767	Woodbridge	Jun 10, 1767	4												
Jun 11, 1767	Brunswick	Jun 10, 1767	1	8							1	8			
Jun 13, 1767	Boston	Jun 4, 1767	25	8											
Jun 13, 1767	New York	Jun 12, 1767	73	8	2				2	16	38				
Jun 13, 1767	Brunswick	Jun 13, 1767	1	8											
Jun 16, 1767	Newbury	Jun 6, 1767	4	16											
Jun 16, 1767	Salem	Jun 7, 1767	4	16											
Jun 16, 1767	Boston	Jun 8, 1767	125	8							8				
Jun 16, 1767	Newport	Jun 9, 1767	10	16											
Jun 16, 1767	Providence	Jun 9, 1767	8												
Jun 16, 1767	New York	Jun 15, 1767	92	16	8						6		13	8	
Jun 16, 1767	Newark	Jun 16, 1767	3	8					16						
Jun 16, 1767	Woodbridge	Jun 16, 1767	2												
Jun 16, 1767	Princetown	Jun 16, 1767	1	8											
Jun 17, 1767	Vienna	Jun 9, 1767	8		18	16							18	16	
Jun 17, 1767	Talbot	Jun 13, 1767	2	16											
Jun 17, 1767	Newtown	Jun 15, 1767	10												
Jun 17, 1767	Fred: Town	Jun 15, 1767	12												
Jun 17, 1767	New Castle	Jun 16, 1767	6										6		
Jun 17, 1767	Chester	Jun 16, 1767	1	8											
Jun 18, 1767	Norfolk	May 30, 1767	6					5	8						
Jun 18, 1767	Norfolk	Jun 2, 1767	5	8											
Jun 18, 1767	Richmond	Jun 3, 1767	8												
Jun 18, 1767	WmBurg	Jun 6, 1767	8	16									4	16	
Jun 18, 1767	Hampton	Jun 6, 1767	4	16					16						
Jun 18, 1767	New Castle	Jun 7, 1767	4												
Jun 18, 1767	Fred: Burg	Jun 12, 1767	13	8				266	16		79	16	3	8	
Jun 18, 1767	Alexandria	Jun 13, 1767	7	8											
Jun 18, 1767	Alexandria	Jun 13, 1767	6	16									3		
Jun 18, 1767	Marlboroug	Jun 14, 1767	10	16											
Jun 18, 1767	Annapolis	Jun 15, 1767	13	8							2	16			
Jun 18, 1767	Baltimore	Jun 15, 1767	15	8							2	16			
Jun 18, 1767	Joppa	Jun 16, 1767	18	8			1				-	- 1.0			
Jun 18, 1767	Charlestown	Jun 17, 1767	2	- 1	2										
Jun 18, 1767	Wilmington	Jun 17, 1767	-		1	8									
Jun 18, 1767	Lancaster	Jun 16, 1767	18		6										
Jun 18, 1767	New York	Jun 17, 1767	68	16	4	16					12				
Jun 18, 1767	Brunswick	Jun 18, 1767	6	16	-										
	Diamon	va 10, 1101	1	8											