

## Day 5: Tone, Mood, and Theme

### English Language Arts

- Apply the concept of tone, mood, and theme to President Jefferson's address to Lewis in 1803.
- Complete the questions at the conclusion of Jefferson's letter.

#### Tone, Mood, and Theme

#### Transcript: Jefferson's Instructions for Meriwether Lewis

*Thomas Jefferson and Early Western Explorers*

*Transcribed and Edited by Gerard W. Gawalt, Manuscript Division, Library of Congress. June 20 1803*

*To: Captain Meriwether Lewis esq. Capt. of the 1st. regimt, of Infantry of the United States*

*Full Transcript Available at <https://www.loc.gov/exhibits/lewisandclark/transcript57.html>*

[ante June 20 1803]

To <Captain> Meriwether Lewis esq. Capt. of the 1st. regimt, of Infantry of the US. of A.

Your situation as Secretary of the President of the US has made you acquainted with the objects of my confidential message of Jan. 18. 1803 to the legislature; you have seen the act they passed, which they expressed in general terms, was meant to sanction these objects, and you are appointed to carry them into execution.

(5) Instruments for ascertaining by celestial observations, the geography of the country through which you will pass, have been already provided. Light articles for barter and presents among the Indians, arms for your attendants, say from 10. to 12. men, boats, tents, & other travelling apparatus with ammunition, medicine, surgical instruments and provisions you will have prepared with such aids as the Secretary at War can yield in his department; & from him also you will receive authority to (10) engage among our troops, by voluntary agreement, the number of attendants above mentioned, over whom you, as their commanding officer, are invested with all the powers the laws give in such a case.

The object of your mission is to explore the Missouri river, & such principal stream of it as by it's course and communication with the waters of the Pacific ocean whether the Columbia, Oregon, Colorado or any other river may offer the most direct & practicable water communication across this (15) continent for the purposes of commerce.

Beginning at the mouth of the Missouri, you will take careful observations of latitude & longitude at all remarkable points on the river, & especially at the mouth of rivers, at rapids, at islands, & other places & objects distinguished by such durable natural marks & characters of a durable nature kind as that they may with certainty be recognized hereafter.

(20) The course of the river between these points of observation may be supplied by the compass, the log-line & by time, corrected by the observations themselves. The variations of the compass too, in different places should be noticed.

The interesting points of the portage between the heads of the Missouri, & of the water offering the best communication with the Pacific ocean, should also be fixed by observation, & the course of that (25) water to the ocean, in the same manner as that of the Missouri.

Your observations are to be taken with great pains & accuracy, to be entered distinctly & **intelligibly** for others...fix the latitude and longitude of the places at which they were taken, and are to be rendered to the war office for the purpose of having the calculations made concurrently by proper persons within the US. several copies of these as well as of your other notes should be made at (30) leisure times, & put into the care of the most trust-worthy of your attendants, to guard by multiplying them against the accidental losses to which they will be exposed. A further guard would be that one these copies be on the paper of the birch, as less liable to injury from damp than common paper.

The commerce which may be carried on with the people inhabiting the line you will pursue, renders a (35) knowledge of those people important. You will therefore **endeavor** to make yourself acquainted with as far as a **diligent** pursuit of your journey shall admit, with the names of the nations & their numbers; the extent & limits of their possessions; their relations with other tribes of nations; their language, traditions, monuments; their ordinary occupations in agriculture, fishing, hunting, war, arts & the implements for these; their food, clothing, & domestic accommodations; the diseases prevalent (40) among them, & the remedies they use; moral & physical circumstances which distinguish them from the tribes we know; peculiarities in their laws, customs & dispositions; and articles of commerce they may need or furnish & to what extent.

Other objects worthy of notice will be the soil & face of the country, it's growth & vegetable productions, especially those not of the US. the animals of the country generally, & especially those (45) not known in the US. the remains & accounts of any which may be deemed rare or extinct; the mineral productions of every kind; but more particularly metals; limestone, pit-coal, & salt-petre; salines & mineral waters, noting the temperature of the last & such circumstances as may indicate their character; volcanic appearances; climate, as characterized by the thermometer, by the proportion of rainy, cloudy, & clear days, by lightening, hail, snow, ice, by the access & recess of (50) frost, by the winds prevailing at different seasons, the dates at which particular plants put forth or lose their flower, or leaf, times of appearance of particular birds, reptiles or insects.

Although' your route will be along the channel of the Missouri, yet you will endeavor to inform yourself, by enquiry, of the character & extent of the country watered by it's branches & especially on it's Southern side, the North river or Rio Bravo which runs into the gulph of Mexico, and the North (55) river, or Rio Colorado which runs into the gulph of California, are understood to be the principal streams heading opposite to the waters of the Missouri, and running Southwardly. Whether the dividing grounds between the Missouri & them are mountains or flat lands, what are their distance from the Missouri, the character of the intermediate country, & the people inhabiting it, are worthy of particular enquiry.

(60) The Northern waters of the Missouri are less to be enquired after, because they have been ascertained to a considerable degree, & are still in a course of ascertainment by English traders, and travellers. But if you can learn anything certain of the most Northern source of the Mississippi, & of it's position relatively to the lake of the woods, it will be interesting to us.

Two copies of your notes at least & as many more as leisure will admit, should be made & confided to (65) the care of the most trusty individuals of your attendants.

In all your intercourse with the natives, treat them in the most friendly & **conciliatory** manner which their own conduct will admit; allay all jealousies as to the object of your journey, satisfy them of it's innocence, make them acquainted with the position, extent character, peaceable & commercial dispositions of the US. of our wish to be neighborly, friendly, & useful to them.

(70) If a few of their influential chiefs within practicable distance, wish to visit us, arrange such a visit with them, and furnish them with authority to call on our officers, on their entering the US. to have them conveyed to this place at the public expense.

If any of them should wish to have some of their young people brought up with us, & taught such arts as may be useful to them, we will receive, instruct & take care of them. Such a mission whether of (75) influential chiefs or of young people would give some security to your own party.

Carry with you some matter of the kinpox; inform those of them with whom you may be, of it's efficacy as a preservative from the smallpox; & instruct & encourage them in the use of it. This may be especially done wherever you winter.

As it is impossible for us to foresee in what manner you will be received by those people, whether (80) with hospitality or hostility, so is it impossible to prescribe the exact degree of perseverance with which you are to pursue your journey. We value too much the lives of citizens to offer them to probable destruction. Your numbers will be sufficient to secure you against the unauthorized opposition of individuals or of small parties: but if a superior force authorized, or not authorized by a nation, should be arrayed against your further passage, and inflexibly determined to arrest it, you (85) must decline it's farther pursuit, and return.

In the loss of yourselves, we should lose also the information you will have acquired. By returning safely with that, you may enable us to renew the essay with better calculated means. To your own discretion therefore must be left the degree of danger you risk, and the point at which you should decline, only saying we wish you to err on the side of your safety, and to bring back your party safe (90) even if it be with less information.

Should you reach the Pacific Ocean inform yourself of the circumstances which may decide whether the furs of those parts may not be collected as advantageously at the head of the Missouri ... On your arrival on that coast endeavor to learn if there by any port within your reach frequented by the sea-vessels of any nation, & to send two of your trusty people back by sea, in such way as they (95) shall judge shall appear practicable, with a copy of your notes: and should you be of opinion that the return of your party by the way they went will be eminently dangerous, then ship the whole, & return by sea, by the way either of cape Horn, or the cape of good Hope, as you shall be able. As you will be without money, clothes or provisions, you must endeavor to use the credit of the U.S. to obtain them, for which purpose open letters of credit shall be furnished you, authorizing you to draw upon (100) the Executive of the U.S. or any of it's officers...

Should you find it safe to return by the way you go, after sending two of your party round by sea, or with your whole party, if no conveyance by sea can be found, do so; making such observations on your return, as may serve to supply, correct or confirm those made on your outward journey.

On re-entering the U.S. and reaching a place of safety, discharge any of your attendants who may (105) desire & deserve it, procuring for them immediate payment of all arrears of pay & clothing which may have incurred since their departure, and assure them that they shall be recommended to the liberality of the legislature for the grant of a soldier's portion of land each, as proposed in my message to Congress; & repair yourself with your papers to the seat of government ....

To provide, on the accident of your death, against anarchy, dispersion, & the consequent danger to (110) your party, and total failure of the enterprise, you are hereby authorized, by any instrument signed & written in your own hand, to name the person among them who shall succeed to the

command on your decease, and by like instruments to change the nomination from time to time as further experience of the characters accompanying you shall point out superior fitness...

Given under my hand at the city of Washington this 20th day of June 1803.

**Th. J. Pr. U.S. of A.**

Directions: Read Jefferson's Letter and complete the following questions.

1. What **tone** does Jefferson set throughout the letter?
2. Consider your answer to the first question. Provide one line of evidence as to why you made this selection.
3. What is the potential **theme** of Jefferson's letter to the Corps of Discovery?
4. Provide two pieces of evidence from the text (sentences/quotes) that support your choice of a theme:
  - A.
  - B.

## Day 5: Slope of a Line

### Math

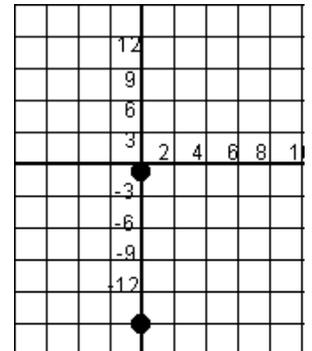
Complete this sheet on Calculating the slope of the hills of Mars for the Curiosity Rover.

## Slope of a line

Materials:

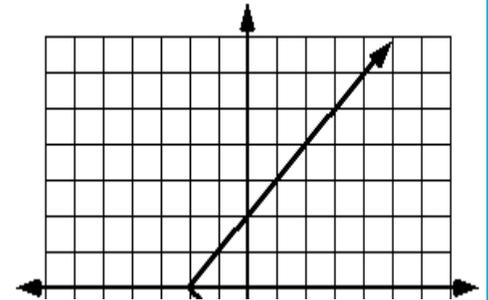
- Calculator
- Pencil

In Math, the slope of a line describes how steep the line is. You can find that but using 2 points (also called ordered pairs) on a graph. For example, on this graph, the ordered pairs would be (0,-1) for the top point and (0,-15) for the bottom point. When we write the ordered pair, we always write it (x,y).



In order to find the slope of a line, we take the change in the y-values over the change in the x-values. That means we would write it like this:

$$(y_2 - y_1) / (x_2 - x_1) = \text{slope}$$



On the graph to the right, what would the ordered pair be (assuming each block is 1)?

If you said (-2,0) and (5,7), then you would be correct. Now, what would be the slope of that line?

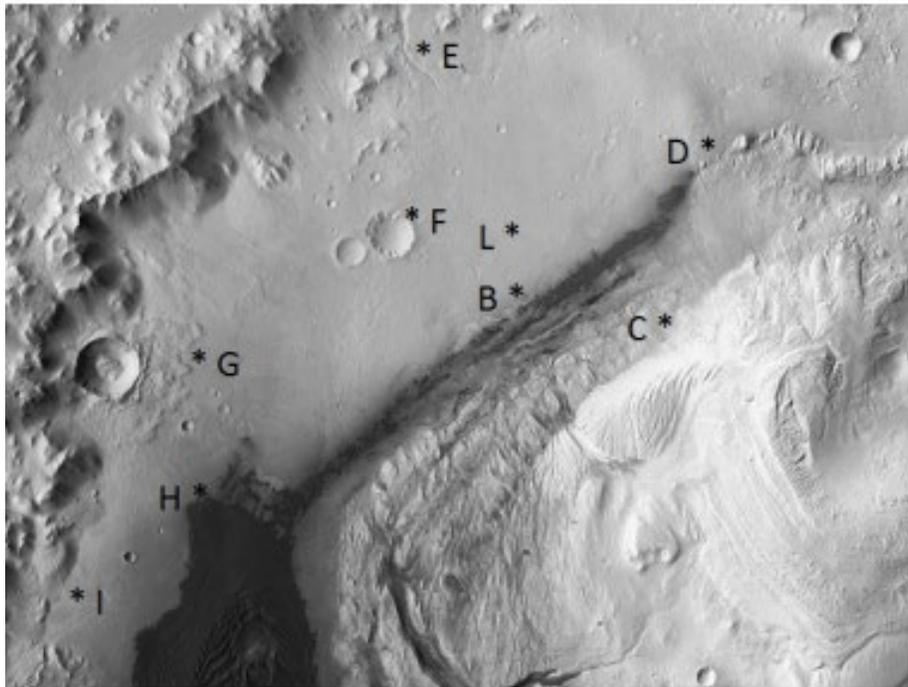
$$(y_2 - y_1) / (x_2 - x_1) = \text{slope}$$

$$(7 - 0) / (5 - -2) =$$

$$(7) / (7) = \quad \textbf{Slope = 1}$$

Important: If the slope of a line is NEGATIVE, that means the numerical value, when you calculate it, will be negative!

## Exploring Gale Crater with the Curiosity Rover



The table below gives the coordinates for the locations to be visited by the Curiosity Rover shown in the figure above. The X and Y coordinates are given in kilometers and the Y coordinate is the elevation about the lowest point. All x coordinates are measured the distance from the landing area. You will need to find slope using the formula  $\text{slope} = (\text{change in } y) / (\text{change in } x)$ . You will need 2 points and find the difference in Y (subtract one from the other) and do the same for the x values of those points.

Label	Name	(X,Y)	Label	Name	(X,Y)
L	Landing Area	(0,25)	F	Crater Wall	(18,23)
B	Layered Wall	(50,35)	G	Mudslide	(62,30)
C	Alluvial Fan	(40,102)	H	Dark Sands	(87,12)
D	Summit Access	(45,40)	I	Mystery Valley	(105,0)
E	River Bed	(47,58)			

**\*\*Always use the Landing Area as the 1st ordered pair.**

**Problem 1** – Curiosity needs to travel to the highest point but can not go above a slope of 1. Prove that it either can or can not go from the Landing area to the highest point directly.

**Problem 2** – Which places have a slope going downward? Name those places.

**Problem 3** – Calculate the slope for each location from the Landing Area.

Name	<i>Slope</i>	Name	<i>Slope</i>
Landing Area		Crater Wall	
Layered Wall		Mudslide	
Alluvial Fan		Dark Sands	
Summit Access		Mystery Valley	
River Bed			

## Day 5: Comparing and Contrasting Earth & Mars Part 2

### Science

- Using the chart from Day 4 Science, finish collecting data for the chart to compare the Earth & Mars.
- Summarize whether or not you believe humans could live on Mars and why in your science journal, use examples from your chart to justify your claim.
- Keep your Planet Chart for Day 6 Science!

## Day 5: Cold War and the Space Race

### Social Studies

1. Analyze the origin of the Space race
2. Examine the Cold War Space Race terms:
3. Read the background information sheet on the Cold War and Space Race:
4. Write a journal entry answering the following: *after reading Document B, how might Sputnik have changed America's perception of the Soviet Union?*

### Cold War Space Race Terms

- ❖ **arms race**—a race between hostile nations to accumulate or develop weapons broadly; a competition between nations for superiority in the development and accumulation of weapons, especially between the United States and the former Soviet Union during the Cold War
- ❖ **duck and cover**—a measure that was widely practiced as part of air-raid drills in the United States during the Cold War in which civilians would kneel and face the floor below a desk or other inside space and cover their heads with their hands; preparing in this way was supposed to provide personal protection against the effects of a nuclear explosion, although in reality this would have done little against the heat, force, or radiation from such an attack
- ❖ **hydrogen bomb**—a nuclear bomb in which energy is released from the fusion of hydrogen atoms; its enormous explosive power results from an uncontrolled, self-sustaining chain reaction; also called a thermonuclear bomb
- ❖ **national security**—a country's ability to protect itself from the threat of violence or attack
- ❖ **nuclear blast**—the initial high-speed destructive wave of compressed air resulting from the rapid release of energy of a nuclear explosion
- ❖ **propaganda**—information or media that deliberately attempts to influence people's thoughts, opinions, and actions with a specific purpose or goal in mind
- ❖ **satellite**—in space technology, a manufactured object or vehicle designed to orbit Earth or another celestial body; satellites typically collect or communicate information Sputnik—the name given to a series of Earth-orbiting satellites launched by the Soviet Union beginning in 1957; Sputnik 1 was the first human-made object put into Earth's orbit; the Russian word sputnik translates as “a traveling companion”

### Sputnik's Launch Begins the Space Race | Chasing the Moon Background Reading

At the end of World War II, competing visions for the postwar world emerged. The Soviet Union pictured a spread of revolutions in the Russian model that would one day produce a Communist utopia. The United States believed in democracy, with private enterprise at the core of capitalist economies. With their worldviews at odds, U.S.–Soviet cooperation, which was key to the Allied victory in the war, devolved into combative rhetoric. The Cold War, a state of political hostility and

military tension between the U.S.-led Western bloc and the Soviet-led Eastern bloc, would span nearly 50 years.

During the Cold War, the two superpowers competed in several arenas. Each side sought to prove its superiority not only in politics and economics but also in athletics and scientific research. For example, success in the Olympic Games offered a way for one country to score literal and figurative points against the other. Competition also spurred technological advancements. The era introduced jet planes, chemical and biological weapons, long-range missiles, and spy satellites. Inventions with non-military uses included microwave ovens, GPS, supercomputers, and ARPANET—a network that would become the basis of the Internet.

The United States had used its atomic bomb on Hiroshima and Nagasaki in 1945. When the Soviet Union had test-detonated its own atomic bomb in 1949, a new competition began. The “arms race” was dedicated to the buildup of nuclear weapons, especially those that could be propelled into enemy territory. As military rocket technology improved, the superpowers adjusted their sights on reaching—and ultimately controlling—space. The “space race” was a race to be the first: first to launch a satellite, first to orbit Earth, first to send a person into space, and first to land on the Moon.

To the public, the space program was a purely scientific and intellectual effort. But both U.S. president Dwight Eisenhower and Soviet leader Nikita Khrushchev recognized its potential strategic value. An Earth-orbiting satellite could observe anything on the ground, including military movements and weapons stockpiles. Moreover, a satellite would be safe from attack—unlike a spy plane, which could be shot down from the sky. Both nations worked hard to build their satellites and be the first to launch. By 1957, the United States, which had recently endured both the Great Depression and the Second World War, had a burgeoning middle class.

As social changes were beginning to transform the country into a more egalitarian society, confidence was high and many Americans were optimistic about the future. In October of that year, however, the Soviet Union sent Sputnik into orbit. By doing so, the Soviets had won the first leg of the space race. While President Eisenhower, a Republican, played down the significance of the event, the Democratic Senate majority leader, Lyndon B. Johnson, sensed a political opportunity for the Democrats. Johnson played up the security implications of the Soviets winning the space race.

This contributed to John F. Kennedy’s election as president in 1960. During the election campaign, the Kennedy–Johnson ticket emphasized the Republican administration’s role in creating a “space gap” (in addition to a “missile gap”). Following the election, with a new national priority given to scientific research, Johnson would lead the American space program—first as Kennedy’s vice president and later as president.

Reprinted from PBS LearningMedia: Sputnik’s Launch Begins the Space Race |Chasing the Moon  
<https://www.pbslearningmedia.org/resource/amex31ctm-soc-sputnikspacerace/sputniks-launch-begins-the-space-race/>

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## Document B

Source: Robert D. Launius. (n.d.). Sputnik and the Origins of the Space Age. In *NASA History Division*. Retrieved September 2, 2009, from <http://history.nasa.gov/sputnik/sputorig.html>.

On that same evening of 4 October, Senate Majority Leader Lyndon B. Johnson ...heard the announcement of Sputnik 1's launch on the radio...Johnson's mind kept returning to the heavens as he pondered the Soviet triumph. He recollected, "Now, somehow, in some new way, the sky seemed almost alien. I also remember the profound shock of realizing that it might be possible for another nation to achieve technological superiority over this great country of ours."

...One of Johnson's aides, George E. Reedy, summarized the feelings of many Americans: "the simple fact is that we can no longer consider the Russians to be behind us in technology. It took them four years to catch up to our atomic bomb and nine months to catch up to our hydrogen bomb. Now we are trying to catch up to their satellite."

Full source is: [https://www.nasa.gov/pdf/466719main\\_AP\\_ED\\_Hist\\_RacetoSpace\\_09-17-09.pdf](https://www.nasa.gov/pdf/466719main_AP_ED_Hist_RacetoSpace_09-17-09.pdf)