

Wheeeeeeeels!!!

The History of the Wheel

CARS, CRAFTS
AND COMMERCE

QUEST 07
WORLD HISTORY

STATE FAIR OF TEXAS
CURRICULUM

From the time prehistoric man invented the wheel, to the birth of the Ferris Wheel, to the latest development - self-driven cars! - wheels and the machines that power them have driven much of global progress - and nowhere is this exciting history displayed more than at the State Fair of Texas. There's the wheelbarrow. The water wheel. Hot Wheels collections. Shiny new high-performance automobiles. We car-crazy Texans love, love, love - and use, use, use - them all.



During this Cars, Crafts, & Commerce Quest, you will:

- ★ Conduct a scavenger hunt to identify 10 types of wheels that owe their origins to multiple centuries.
- ★ Create a timeline of wheel-driven transportation developments, examining the advantages and disadvantages of wheeled vehicles over the ages.
- ★ Identify elements of the global Industrial Revolution that owe their origins to the wheel.
- ★ **Answer the Essential Questions:** What role has the wheel played in driving critical migratory patterns and economic developments? Has the wheel truly served as one of man's primary engines of ingenuity, and if so, how?
- ★ **Achieve the Learning Target:** I can explain the nature of man's invention of the wheel; I'm able to employ my understanding of the wheel and its associated technologies to analyze historical migratory patterns and economic developments.



Standards

- ★ World History TEKS: 113.42 (c) (1-4), (7-9), (16) (A-C), (17), (25), (27-31)
- ★ Arts TEKS: Art I: 1A, 1B, 1C, 2F, 3A; Art II: 1A, 2D, 2A, 3A
- ★ ELAR TEKS: EL(14)(B)
- ★ Career Development TEKS: 130.3 (c)(3-4, 6-9, 10)



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STATE FAIR MAP



Invitation

★You're invited on a Quest to use the State Fair of Texas as your lab for exploration, observing and gathering research on the never-ending use and display of wheels and wheel-driven technology at the Fairgrounds. Which wheels at the Fair perform largely the same functions as the first Mesopotamian wheels? Which perform functions those early inventors could never have imagined? Use the route, materials, and instructions below to find out!



Plan Your Route

★Plan where you'll go before you arrive at the Fairgrounds. This is a scavenger hunt that asks you to collect as many examples of the wheel as you can - so the following are just the start of places you may decide to explore as you gather your research:

- ★The D.A.R. House
- ★The Perot Museum Building
- ★The African-American Museum
- ★Fun on the Farm

- ★The State Fair Auto and Truck Zones
- ★The Old Mill Inn
- ★Chevrolet Ride & Drive
- ★...where else?

Before You Go (Timing: 1-2 x 45-min daily classes or 0.5-1 x 90-min block class)

- ★Hold a discussion about the history of the wheel, comprising the extraordinary nature of the wheel's invention to recent patents for spherical wheels.
- ★Use classroom computers or smartphones to find, share, read and discuss in small groups a recent news article that clearly illustrates the role the wheel plays in driving our current economy - and another that takes a look at breaking technologies that appear set to forever change the way we think about the wheel and its importance in moving man forward.
- ★Work with your group to brainstorm a list of the types of wheels you're likely to encounter on Fair Day - and then, employ your class notes to identify an approximate date or period of invention for each wheel type you've listed.
- ★Referencing your class notes to date, your textbook, and your smart phone, identify one key development in global history tied to each of these inventions and their associated periods.

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Optional Materials to Bring

- ★ Your “Wild, Whacky and Wonderful Wheels in World History” chart
- ★ Pen or Pencil
- ★ Notebook or Paper
- ★ Smartphone or Tablet
- ★ A printed map of the State Fair of Texas, available online or at any gate



While You're There

Complete the “Wild, Whacky Wonderful Wheels in World History” chart as you conduct your scavenger hunt, locating and recording examples of different types of wheels from various global time periods. You might find an example of a Model T Ford in one of the Fair’s many museum exhibits (or some other cool example with wheels)! If you do, write down what you find, and follow the instructions on the chart. Complete it, and then bring it to your next class, ready to work with your group to analyze your findings.

Wild, Wacky, & Wonderful Wheels in World History

HISTORY OF THE WHEEL

- o Start by finding at least 10 different kinds of wheels. Here’s the tricky part:
 - Their function needs be traced to at least 4 different major periods or developments in world history.
 - Also identify wheels that owe their origins or their inventors to at least 3 different continents.
- o Once you’ve completed the chart, gather other examples – with associated global regions and historical time periods – as you can during your time at the Fair.

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CURRICULUM

Wheel	Location In Fair	Purpose of Wheel	Estimated Time Period of Origin	Known/Anticipated Continent of Origin
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Whooooooooo!!!

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CURRICULUM



After the Fair (Timing: 2 x 45-min daily classes or 1-1.5 x 90-min block class)

After Fair Day, you'll work in your previously assigned small groups to:

- ★ Catalog your scavenger-hunt findings to create as comprehensive a list of wheels, world history, and representative global regions as possible
- ★ Use your notes and the results of your initial periodization efforts to identify the major global historical period each belongs to.
- ★ Identify one example for each of the wheel examples you found of an associated invention or economic development that helped shape world history.
- ★ Write a one-page analysis summarizing the wheel lecture, your scavenger hunt findings, your periodization-analysis efforts, and your group discussions:
 - o Prompt: "What role has the wheel played through history in driving critical technological, economic, and industrial developments? Use specific examples to support your assertions."



ART PORTION

Now that you have documented and experienced multiple designs and uses for the wonderful wheel, it's time to create some kinetic wheel art!

- ★ Before you get started, look at the art of Andrew Calder.
 - o Calder was the original "inventor" of the hanging mobile.
 - Although he is best known for his hanging mobiles, he created many different types of sculptures and several that included wheels, like this fun kangaroo piece!
 - Be sure to click on the tab that says "Calder's Work" and scroll through his many examples. <http://www.calder.org/>
- ★ In the mobile that you create, you will focus on the idea of the wheel, or circular form.
 - o Draw inspiration from the ones that you document at the State Fair.
 - o You will need wire - a thinner type that you can bend with your hands, or you will need pliers to manipulate a thicker kind.
 - o The material that you create your "wheels" from is up to you, but keep in mind that it needs to be light enough to allow your mobile to float in the air!

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60 → TIMAEUS AND CRITIAS

was roused at the instigation of reason making proclamation of any wrong assailing them from without or being perpetrated by the desires from within, quickly the whole power of feeling in the body, perceiving these commands and threats, might obey and follow through every turn and alley, and thus allow the principle of the heart to follow the command in all of them. But as the gods knew the palpitation of the heart, in the expectation of danger and excitement of passion, they formed and implanted the lung as a sort of aid to the heart in the place, soft and bloodless, and also had within hollows like the pores of a sponge, in order that, receiving breath at the drink and food, it might give the power of respiration and alleviate the heart. Wherefore they cut the passages of the trachea which lead to the lung and placed the lung above the heart as a soft support. When anger was rife in the heart beating against the yielding body, might be refreshed and might thus become more ready to accomplish its duty in the presence of reason.

The part of the body which desires meats and drinks and such things as are necessary for its needs, they placed between the midriff and the lungs, and in all this region a sort of manger for the desires, and there they bound the desires down as if with chains, while the heart is chained up with man and must be necessary to exist. In order that this lower creature might always feed in the manger, and have his dwelling as far as possible in a quiet chamber, making as little noise and disturbance as possible, and permitting the best part to advise quietly for the good of the whole, they appointed for him this place. And knowing that this principle in man would not listen to reason, and even attaining to some degree of perception would never naturally be persuaded by arguments, and was liable to be led away by phantasms and visions of the night and also by day, God, considering this, framed



ENGLISH PORTION

Write a found poem about the wheels that you encountered at the Fair.

- ★ Found poetry is created by taking words and phrases from another source and then changing the format, spacing, and adding and deleting words to create your own poem.
- ★ Follow the steps below to complete your found poem:
 1. Make a photocopy, or print off, a page from a book. Use a page from a fiction selection, as the diction and literary elements used lend themselves better to found poetry.
 2. Read the page and take notes of the words and phrases that stick out to you, and that can be used to describe the wheels that you encountered, how you felt about the wheels, your favorite wheel, etc.
 3. Mark up your page. Go through the page and mark out the words you do not need, but leave the words you need that will help you write your poem.
 4. When you are done marking out your words, go back through and connect the words that are left in a creative way.
- ★ Click the link below for images of found poetry
 - <https://goo.gl/Lc8PNy>