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THE OKLAHOMAN

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Oklahoma Alliance  
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Education

# TEACHER'S GUIDE 2017

# WEEK 1 GAMES

Submitted by Ginny Rohr,  
Tulsa, OK

## GAME SCHEDULE

Baylor vs Liberty  
Oklahoma vs UTEP  
Oklahoma State vs Tulsa  
TCU vs Jackson State

Kansas vs Southeast Missouri State  
West Virginia vs Virginia Tech (Landover, MD)  
Kansas State vs Central Arkansas  
Texas vs Maryland

Iowa State vs Northern Iowa  
Texas Tech vs Eastern Washington

### → OVERTIME ACTIVITY

Pressure - Something's Gotta Give

Oklahoma and Texas are among the top producers of natural gas. Safety is always a concern when dealing with any gas due to pressure. What is pressure?

Make your own rocket to find out. (Best to do outdoors!)

Materials: safety glasses, small container with snap-off lid (e.g. film canister), effervescent tablet (e.g. Alka-Seltzer), water

1. Put on your safety glasses
2. Put about 1 teaspoon of water in the container
3. Break the tablet into pieces. Place in the container
4. QUICKLY snap the lid on the container and turn it upside-down; place it on a flat surface.
5. STAND BACK and watch! Explain what happened. Why?



**1.** While Northern Iowa battles Iowa State, the popcorn that you are munching while watching the game is likely a Made in America product. What Iowa company has been popping fun for over 100 years? According to the US Census, how much corn was exported from Iowa last year?

**3.** Eastern Washington Eagles will swoop to Lubbock, Texas this week. Will fans fly or drive? Determine the distance and travel time using online maps. How will time zones factor in?

**4.** The state of Oklahoma has become the number one earthquake area in the world. What do you call a person who studies earthquakes and related phenomena? Explain how earthquakes are measured.



**2.** The University of Oklahoma is a public research university. They were recently awarded a five-year, \$166 million grant by NASA. What will they be studying? Why is it important?



## Oklahoma Alliance for Geographic Education



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## 2 GRIDIRON GEOGRAPHY 2017

### WEEK 1: AUGUST 28-SEPTEMBER 3 ANSWERS

1. Jolly Time Pop Corn - making popcorn since 1914

\$1,176 million worth

<http://money.cnn.com/2015/08/19/smallbusiness/iowa-manufacturing/index.html>

<https://www.census.gov/foreign-trade/statistics/state/data/ia.html>

2. They will be researching the earth's natural exchanges of carbon between the land, atmosphere and ocean. They will monitor plant health and vegetation stress throughout the Americas, and examine the natural sources and processes that control carbon dioxide, carbon monoxide and methane in the atmosphere.

Balance of the carbon cycle is necessary to sustain life on earth.

[http://www.ou.edu/content/web/about\\_ou.html](http://www.ou.edu/content/web/about_ou.html)

[http://www.ou.edu/content/web/news\\_events/articles/news\\_2016/nasa-grant.html](http://www.ou.edu/content/web/news_events/articles/news_2016/nasa-grant.html)

<https://earthobservatory.nasa.gov/Features/CarbonCycle/>

3. Probably fly; 5 hours to fly, 24 hours to drive

1,655 miles

Texas is Central Time Zone and Washington is two hours later, Pacific Time Zone

[https://www.google.com/search?q=eastern+washington+university&rlz=1C1GGRV\\_enUS751US751&oq=eastern+washington+university&aqs=chrome..69j57j0l5.5096j0j7&sourceid=chrome&ie=UTF-8#q=chene+washington+to+lubbock+tx](https://www.google.com/search?q=eastern+washington+university&rlz=1C1GGRV_enUS751US751&oq=eastern+washington+university&aqs=chrome..69j57j0l5.5096j0j7&sourceid=chrome&ie=UTF-8#q=chene+washington+to+lubbock+tx)

[https://nationalmap.gov/small\\_scale/printable/timezones.html#one](https://nationalmap.gov/small_scale/printable/timezones.html#one)

4. Seismologist

An instrument called a seismograph measures and records the force and duration. The Richter scale is used to assign a magnitude number to quantify the energy released by earthquake.

[http://www.enidnews.com/news/local\\_news/oklahoma-world-s-no-earthquake-area/article\\_69b145b8-c180-5065-8f99-b2a7ec7ce913.html](http://www.enidnews.com/news/local_news/oklahoma-world-s-no-earthquake-area/article_69b145b8-c180-5065-8f99-b2a7ec7ce913.html)

<http://earthquakes.ok.gov/what-we-know/earthquake-map/>

<https://earthquake.usgs.gov/learn/topics/measure.php>

### **OVERTIME ANSWER:**

Pressure is the continuous physical force exerted on or against an object by something in contact with it.

Carbon dioxide gas is given off as the water dissolves the Alka-Seltzer tablet. The gas inside the container rises. Built up pressure exerts enough force to force off the lid and shoot the container (rocket) into the air.

<https://www.eia.gov/tools/faqs/faq.php?id=46&t=8>

<https://www.grc.nasa.gov/WWW/K-12/airplane/pressure.html>

[http://www.naturalgaswatch.org/?page\\_id=4044](http://www.naturalgaswatch.org/?page_id=4044)

### **TRIVIA ANSWER:**

TransCanada Corporation, based in Canada, is the sole owner.

Pipe leakage, fossil fuels, and climate change.

The current pipeline crosses North Dakota, South Dakota, Nebraska, Kansas, Missouri, Illinois, Oklahoma, and Texas. The newest phase crosses Montana, South Dakota and Nebraska. Therefore, it passes through the Big 12 states of Kansas, Oklahoma, and Texas.

<http://www.keystone-xl.com/>

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

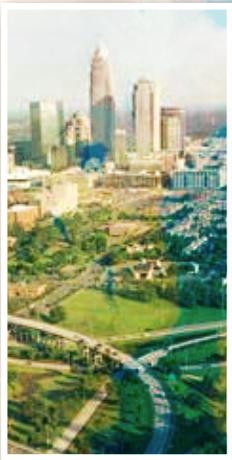
[https://en.wikipedia.org/wiki/Keystone\\_Pipeline#/media/File:Keystone-pipeline-route.png](https://en.wikipedia.org/wiki/Keystone_Pipeline#/media/File:Keystone-pipeline-route.png)

<http://www.factcheck.org/2014/03/pipeline-primer/>

# WEEK 2 GAMES

Submitted by Dr. Darren Purcell,  
University of Oklahoma, Norman, OK

GAME SCHEDULE		
Baylor vs UTSA	TCU at Arkansas	Texas vs San Jose State
Oklahoma at Ohio State	Kansas vs Central Michigan	Iowa State vs Iowa
Oklahoma State at South Alabama	West Virginia vs East Carolina	Texas Tech vs Arizona State
	Kansas State vs Charlotte	



**1.** Bank of America relocated its corporate headquarters from New York City in the year 1998 after being taken over by Nations Bank. This move fostered the rise of this Big 12 opponent's

city to become the third largest financial center as measured by assets, in the United States in 2017. Which city is it?

**2.** Big 12 country is a great place to find good barbecue, with regional rivalries over which type is best often as intense as sports rivalries.



East Carolina University, West Virginia's foe this week, is situated in a part of North Carolina known for

its distinct style of barbecue sauce. What is the name for this style of sauce and what two ingredients are the basis for it?

**3.** When San Jose State comes to Austin to play the University of Texas, they will most likely fly. However, if they decided to drive to the game, what two (2) interstates would they drive on most in order to keep their time on the road to a minimum?

**4.** The Eisenhower Interstate System connects many midsize cities and metropolitan areas. Several Big 12 universities and their opponents are in cities lacking a direct connection to the interstates. Which Big 12 schools and opponents this week are located 25 or more miles from an interstate highway?

## → OVERTIME ACTIVITY

Look up the populations for each of the Big 12 teams playing this week and compare the figure to the city size of the opponent. Then look up the number of students at each school. Which ones are larger? Which ones are smaller? Is there a link between city size and the size of the school's population? Average the population of Big 12 cities and compare it to the average of the opponent's home cities. Which is larger? What patterns do you see?



## WEEK 2: SEPTEMBER 4-SEPTEMBER 10

### ANSWERS:

1. Charlotte, NC

<https://www.bizjournals.com/charlotte/news/2017/05/23/charlotte-drops-to-third-largest-banking-hub-in-u-s.html>

2. Eastern style, vinegar and pepper-based (no tomato at all)

<https://www.eater.com/2016/6/18/11966056/barbecue-sauce-styles>

3. Interstates 5 and 10, but they would also spend time on I-280 in the Bay Area and then I-210 in greater Los Angeles, per Google Maps. Total trip time, 25 hours.

[https://www.google.com/search?q=san+jose+state&rlz=1C1GGRV\\_enUS751US751&oq=san+jose+state&aqs=chrome..69i57j0l5.2567j0j7&sourceid=chrome&ie=UTF-8#q=san+jose+to+austin+drive](https://www.google.com/search?q=san+jose+state&rlz=1C1GGRV_enUS751US751&oq=san+jose+state&aqs=chrome..69i57j0l5.2567j0j7&sourceid=chrome&ie=UTF-8#q=san+jose+to+austin+drive)

4. Central Michigan University, East Carolina University

<https://www.google.com/maps/place/Central+Michigan+University/@43.6978489,-85.327879,9.5z/data=!4m5!3m4!1s0x882204b3c623a4ed:0xc3c43a1f5e793c1f!8m2!3d43.5819086!4d-84.7756364>

<https://www.google.com/maps/place/East+Carolina+University/@35.5452316,-77.6051947,10.75z/data=!4m5!3m4!1s0x89aee796e2781607:0x5237fe62a4cda93b!8m2!3d35.6055108!4d-77.3645653>

**OVERTIME ANSWER:**

Team	City	Big 12	Population	Enrollment	
Oklahoma State	Stillwater	Yes	48,406	26,073	Smaller
South Alabama	Mobile	No	194,675	15,065	Larger
Iowa	Iowa City	No	73,415	29,748	Larger
Iowa State	Ames	Yes	63,266	32,955	Smaller
Charlotte	Charlotte	No	809,958	26,571	Larger
Kansas State	Manhattan	Yes	56,078	24,581	Smaller
East Carolina	Greenville	No	89,852	26,887	Larger
West Virginia	Morgantown	Yes	31,073	29,466	Smaller
TCU	Fort Worth	Yes	812,238	9,925	Larger
Arkansas	Fayetteville	No	80,621	25,341	Smaller
San Jose State	San Jose	No	1,015,785	31,278	Larger
Texas	Austin	Yes	912,791	52,059	Smaller
Central Michigan	Mount Pleasant	No	25,971	26,841	Smaller
Kansas	Lawrence	Yes	92,763	26,968	Larger
Oklahoma	Norman	Yes	118,040	27,292	Smaller
Ohio State	Columbus	No	835,957	57,466	Larger
UTSA	San Antonio	No	1,436,697	28,623	Larger
Baylor	Waco	Yes	130,194	15,616	Smaller

Student body size & population do not increase proportionally

Average of Big 12 population: 251,650

Average of non-Big 12 population: 506,992

On average, cities of Big 12 schools are smaller.

<http://www.city-data.com/>

[http://www.stateuniversity.com/rank/score\\_rank.html](http://www.stateuniversity.com/rank/score_rank.html)

**TRIVIA ANSWER:**

Farthest North – Central Michigan University at 43 degrees and 34 minutes North latitude.

Farthest south. UT San Antonio – 29 degrees and 34 minutes N. latitude. University of South Alabama is approximately one degree to the north.

<http://www.latlong.net/>

# WEEK 3 GAMES

Submitted by Jeff Woolsey, Jefferson Middle School, Oklahoma City, OK

## GAME SCHEDULE

Baylor at Duke  
Oklahoma vs Tulane  
Oklahoma State at Pittsburgh

TCU vs SMU  
Kansas at Ohio  
West Virginia vs Delaware State

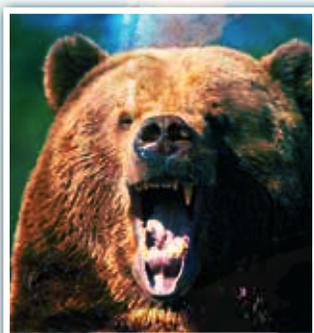
Kansas State at Vanderbilt  
Texas at USC  
Iowa State at Akron

1. Oklahoma State travels to Pittsburgh this week, which is in western Pennsylvania. Pittsburgh sits at the junction of which 3 rivers? Of the 3 rivers, how many miles is the longest river? Which states does it pass or flow through before ending in Cairo, Illinois, where it joins the Mississippi river?

2. The Cardinals of Iowa State will fly into Akron to take on the Zippers this week. Although their mascot is a Kangaroo named Zippy, Zippers are a pair of rubber overshoes and a brand name of the BF Goodrich tire company. Akron in the early 20th century was once home to four major tire companies and known as the rubber capital of the world. Name the four tire companies.

3. The Baylor Bears will travel to North Carolina to play Duke University. If they were to travel by bus, what city would they leave from, which interstates would they take, how many miles is the trip and what states would they pass through before arriving in what city?

4. The Jayhawks will flock to Tiger territory this week. Memphis' city charter was repealed by the State of Tennessee in 1879 following a yellow fever epidemic in 1878. What percentage of the population caught the fever? How was it spread? What virus is a major concern today that is spread by the same insect?



### ➔ OVERTIME ACTIVITY

This is a non-conference week for all Big 12 teams, how many Big 12 teams will have to travel and how many Big 12 teams are at home this week? Name the teams that have away games. Out of all the games, which team will have the farthest to travel and how far? Which team will have the shortest to travel and how far?

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### WEEK 3: SEPTEMBER 11-SEPTEMBER 17

#### ANSWERS:

1. The three rivers in Pittsburgh are the Monongahela River, the Allegheny River and the Ohio River. The Ohio River, which travels 981 miles, flows through or borders Illinois, Indiana, Kentucky, Ohio, Pennsylvania and West Virginia.

<https://www.reference.com/geography/three-rivers-pittsburgh-8a159dd1b352a8fc#>

2. Goodrich Corporation, Goodyear Tire and Rubber Company, Firestone Tire and Rubber Company and General Tire.

[https://en.wikipedia.org/wiki/Akron,\\_Ohio](https://en.wikipedia.org/wiki/Akron,_Ohio)  
[http://www.ohiohistorycentral.org/w/Rubber\\_Industry](http://www.ohiohistorycentral.org/w/Rubber_Industry)

3. Waco, I-35, I-20, and I-85, 1249.3 Miles, Texas, Louisiana, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Durham.

<http://maps.randmcnally.com/>

4. New Orleans, Mississippi River

[https://en.wikipedia.org/wiki/New\\_Orleans](https://en.wikipedia.org/wiki/New_Orleans)

#### OVERTIME ANSWER:

6 teams travel, 4 are at home. Oklahoma State, Iowa State, Baylor, Kansas, Kansas State, and Texas are away. Farthest – Texas to Southern California 1382.4 Miles, Shortest – SMU to TCU 39.9 miles

<http://www.big12sports.com/SportSelect.dbml?SPSID=106580&SPID=13139>

<http://maps.randmcnally.com/>

#### TRIVIA ANSWER:

Los Angeles, 1880 by Judge Robert M. Widney. 34.224 N, 118.2851 W

[https://en.wikipedia.org/wiki/University\\_of\\_Southern\\_California](https://en.wikipedia.org/wiki/University_of_Southern_California)

<http://about.usc.edu/history/>

[https://www.google.com/search?q=usc+location+latitude+longitude&rlz=1C1GGRV\\_enUS751US751&oq=usc+latit&aqs=chrome.1.69i57j0l2.7468j0j1&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=usc+location+latitude+longitude&rlz=1C1GGRV_enUS751US751&oq=usc+latit&aqs=chrome.1.69i57j0l2.7468j0j1&sourceid=chrome&ie=UTF-8)

# WEEK 4 GAMES

Submitted by Janet Hall,  
Bethany Middle School, Bethany, OK

GAME SCHEDULE		
Baylor vs Oklahoma	Oklahoma State vs TCU Texas Tech vs Houston	Kansas vs West Virginia

1. There is one non-conference game this weekend. The school hosting this game was hoping to become part of the Big 12 Conference. But the conference decided against expanding, so this team is still not part of the conference. The hosting city is also a famous international port. What city is the home of this week's non-conference game and what two teams are playing?
2. West Virginia University fans driving interstate highways to Manhattan, Kansas, for the Kansas State game will pass through a major U.S. city which

has often been called "the Gateway to the West." What is the name of this city, and on what major river is it located?

3. One game this week will be played in a city that was originally the home of the Hueco tribe of American Indians. What is the name of that city and what two teams will play there this week?
4. One of this week's teams has a mascot related to the landforms where they live. Name that team and their mascot.

## → OVERTIME ACTIVITY

The hometowns of all of this week's teams are located within the Mississippi River Basin. What is a river basin? Draw the boundaries of the Mississippi River Basin on a map of the U.S.



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### WEEK 4: SEPTEMBER 18-SEPTEMBER 24

#### ANSWERS:

1. Houston, Texas; University of Houston and Texas Tech

<http://www.chron.com/sports/cougars/article/Big-12-opts-against-conference-expansion-at-this-9976688.php>

2. St. Louis, Missouri, located on the Mississippi River

<http://www.legendsofamerica.com/mo-stlouis.html>

3. Waco, Texas; OU and Baylor

<http://wacohistory.org/items/show/46>

4. West Virginia Mountaineers

<http://www.foxsports.com/college-football/teams>

#### OVERTIME ANSWER:

There are numerous maps online. Here is one example.



<https://www.nwrc.usgs.gov/images/states.gif>

#### TRIVIA ANSWER:

Texas; Chuba Hubbard from Sherwood Park, Alberta, Canada

<http://oklahomastate.247sports.com/Season/2017-Football/Commits>

# WEEK 5 GAMES

Submitted by Pam Merrill,  
Edmond Public Schools, Edmond, OK

## GAME SCHEDULE

Baylor at Kansas State

Oklahoma State at Texas Tech

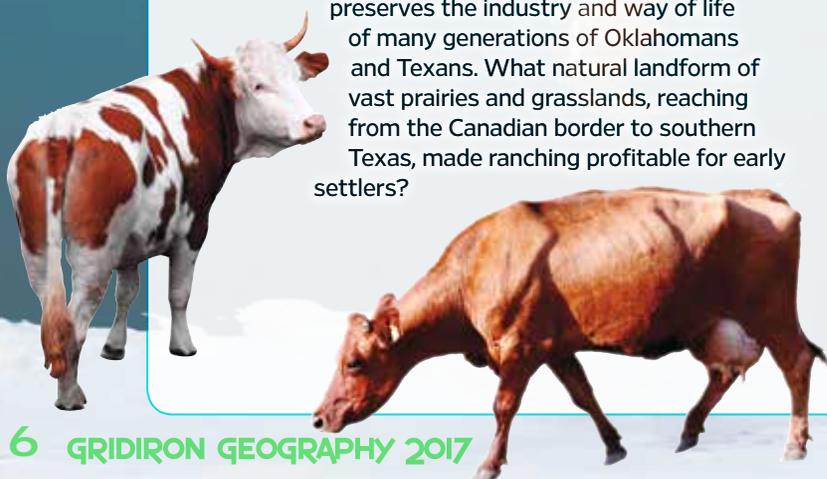
Texas at Iowa State

1. Forming a watershed which covers 65,590 square miles and the natural boundary between the neighboring states of Texas and Oklahoma, this waterway provided transportation to early explorers and traders. What did the Spanish explorers call this waterway because of its color?

2. The University of Oklahoma was the Big 12 Conference Winner of the EPA's (Environmental Protection Agency) Green Power Challenge. This award recognizes the largest green power user. What form of green energy provides electricity for the OU Campus?



3. Texas Tech houses the National Ranching Heritage Center. This museum preserves the industry and way of life of many generations of Oklahomans and Texans. What natural landform of vast prairies and grasslands, reaching from the Canadian border to southern Texas, made ranching profitable for early settlers?



4. Texas Tech is located in Lubbock, the "hub" of the largest contiguous cotton-growing region in the world. Here, cotton-growing is heavily dependent on water drawn from one of the world's largest aquifers. What is the name of this underground source of water?

### ↳ OVERTIME ACTIVITY

Learn more about the importance of aquifers to farmers throughout the Great Plains by watching this video produced by the National Science Foundations at <https://www.youtube.com/watch?v=XXFsS94HF08>.

Explore the geography of the Ogallala Aquifer by examining this interactive map provide by the National Geographic online magazine at <http://www.nationalgeographic.com/magazine/2016/08/vanishing-aquifer-interactive-map/>.

Next, analyze the current challenges and solutions for preserving the water of the Ogallala Aquifer by reading this article, "Saving a Vital U.S. Water Source" (Scientific America) at <https://www.scientificamerican.com/article/the-ogallala-aquifer/>.

Create a 3-column chart. Label the columns "New Crops", "Farming Techniques" and "Irrigation Innovations". In each column, briefly describe how each approach to farming in the regions watered by the Ogallala Aquifer can help preserve water for future generations. Participate in a brief classroom debate, supporting the method you believe will be the most effective in conserving the limited resources of this aquifer.

## WEEK 5: SEPTEMBER 25-OCTOBER 1

### ANSWERS:

1. Rio Rojo

<https://tshaonline.org/handbook/online/articles/rnr01>

2. Wind

<http://www.ou.edu/content/sustainability/currentpractices/windpower.html>

3. Great Plains

<http://www.depts.ttu.edu/nrhc/Exhibits/proctor.php>

<http://plainshumanities.unl.edu/encyclopedia/doc/egp.ag.019>

4. Ogallala Aquifer

[https://en.wikipedia.org/wiki/Lubbock,\\_Texas](https://en.wikipedia.org/wiki/Lubbock,_Texas)

### TRIVIA ANSWER:

The National Weather Center

<http://ou.edu/content/nwc/about.html>

### OVERTIME ANSWER:

New Crops	Farming Techniques	Irrigation Innovations

# WEEK 6 GAMES

Submitted by Virginia Silvis,  
University of Oklahoma, Norman, OK

Oklahoma vs Iowa State	<b>GAME SCHEDULE</b>	Kansas State at Texas
	TCU vs West Virginia	
	Kansas vs Texas Tech	



**1.** Locate Iowa State University on a map. How long would it take to ride your bike from Jack Trice Stadium in Ames, Iowa to the Gaylord Family - Memorial Stadium in Norman, Oklahoma? If you left on Friday at 8 am, would you make it in time for kick off?

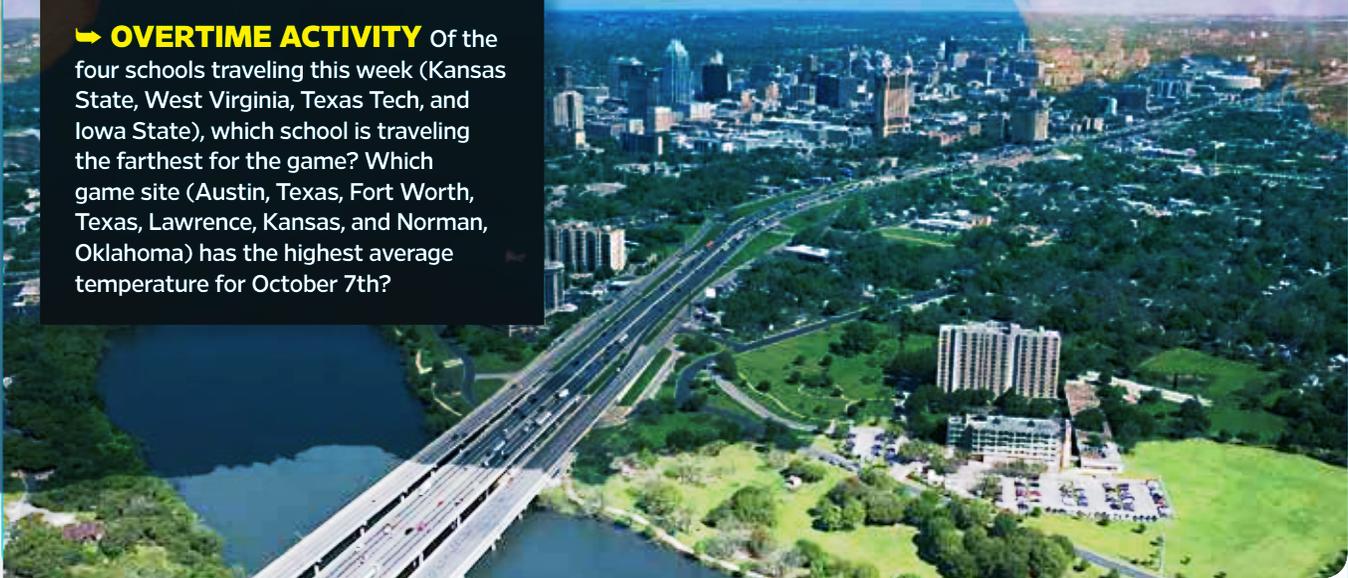
**2.** Texas Christian University was founded in 1873 as AddRan Male and Female College in Thorp Spring, Texas. It moved to Fort Worth, Texas in 1910. What other city has Texas Christian University called home?

**3.** West Virginia was part of the state of Virginia until 1863 when it joined the United States as an independent state as a result of the Wheeling Convention of 1861. What other two states were formally considered to be the territory of an existing state before they joined the Union?



**4.** The University of Texas's oldest campus is located in Austin and is the flagship of the University of Texas System. The system composes seven other universities with campuses in twelve other Texas towns, what are they?

➔ **OVERTIME ACTIVITY** Of the four schools traveling this week (Kansas State, West Virginia, Texas Tech, and Iowa State), which school is traveling the farthest for the game? Which game site (Austin, Texas, Fort Worth, Texas, Lawrence, Kansas, and Norman, Oklahoma) has the highest average temperature for October 7th?



**WEEK 6: OCTOBER 2-OCTOBER 8**  
**ANSWERS:**

- Approximately 55 hours, highly unlikely.  
<https://www.google.com/maps/dir/The+Gaylord+Family+Oklahoma+Memorial+Stadium,+Asp+Av+enue,+Norman+OK/Jack+Trice+Stadium,+Ames,+IA+50011/@38.5336689,-100.095241,6z/data=!4m15!4m14!1m5!1m1!1s0x87b269d4b5456051:0x1abd3cf33ea1be12!2m2!1d-97.4423145!2d35.2058537!1m5!1m1!1s0x87ee7a76c9f7ab35:0x843c0c6628b01223!2m-2!1d-93.635664!2d42.016144!3e1!5i2>
- Waco, Texas  
<http://www.tcu.edu/90.asp>
- Maine (formerly part of Massachusetts) and Kentucky (formerly part of Virginia)  
<https://www.loc.gov/item/today-in-history/march-15>  
<http://www.kentuckytourism.com/explore/kyfacts/history.aspx>
- Arlington (UT- Arlington), Dallas (UT-Dallas), El Paso (UT-El Paso), Brownsville (UT-Rio Grande Valley), Edinburg (UT-Rio Grande Valley), Harlingen (UT-Rio Grande Valley), McAllen (UT-Rio Grande Valley), Rio Grande City (UT-Rio Grande Valley), South Padre Island (UT-Rio Grande Valley), San Antonio (UT- San Antonio), Tyler (UT-Tyler), and Odessa (UT-Permian Basin)

[https://en.wikipedia.org/wiki/University\\_of\\_Texas\\_System](https://en.wikipedia.org/wiki/University_of_Texas_System)

[https://en.wikipedia.org/wiki/University\\_of\\_Texas\\_Rio\\_Grande\\_Valley](https://en.wikipedia.org/wiki/University_of_Texas_Rio_Grande_Valley)

**OVERTIME ANSWER:**

School traveling the farthest is the West Virginia and the game site with the highest average temperature for October 7th in Austin.  
KSU to UT: <https://www.google.com/maps/dir/Kansas+State+University,+Manhattan,+KS+66506/The+University+of+Texas+at+Austin,+Austin,+TX+78712/@34.6667171,-101.6536193,6z/data=!3m1!4b1!4m13!4m12!1m5!1m1!1s0x87bdcd8d57327449:0xd66f9bcd791b75!2m2!1d-96.5847249!2d39.1974437!1m5!1m1!1s0x8644b59b2584cfb7:0x8131ee4f174a21de!2m2!1d-97.7340567!2d30.2849185>

WVU to TCU: <https://www.google.com/maps/dir/West+Virginia+University,+Morgantown,+WV/Texas+Christian+University,+Fort+Worth,+TX/@36.1482723,-97.6698813,5z/data=!3m1!4b1!4m13!4m12!1m5!1m1!1s0x88357b7c4720d4ed:0x4d72f555d6fad830!2m2!1d-79.9559358!2d39.6361396!1m5!1m1!1s0x864e70ec923bcd7b:0x630caeb0bbe02887!2m2!1d-97.3595796!2d32.7083275>

TTech to KU: <https://www.google.com/maps/dir/Texas+Tech+University,+Lubbock,+TX/University+of+Kansas,+1450+Jayhawk+Blvd,+Lawrence,+KS+66045/@36.2149265,-103.0818976,6z/data=!3m1!4b1!4m13!4m12>

!1m5!1m1! 1s0x8640c413f31ec847:0x52db374b7b07849!2m2!1d-101.8782822!2d33.5842591!1m5!1m1!1s0x87bf6f32f3a8d673:0x53714e21ab238228!2m2!1d-95.2557961!2d38.9543439

ISU to OU: <https://www.google.com/maps/dir/lowa+State+University,+Ames,+IA+50011/The+University+of+Oklaho+ma,+660+Parrington+Oval,+Norman,+OK+73019/@38.5261753,-100.0262899,6z/data=!3m1!4b1!4m13!4m12!1m5!1m1! 1s0x87ee7a0a5e215b19:0xd7d8ed3aee6c49e8!2m2!1d-93.6464654!2d42.0266187!1m5!1m1!1s0x87b2682be67f50bb:0x4abecf8329041e54!2m2!1d-97.4457137!2d35.2058936>

Austin, TX: [https://www.wunderground.com/history/airport/KATT/2017/10/24/MonthlyCalendar.html?req\\_city=Austin&req\\_state=TX&req\\_statename=&reqdb.zip=73301&reqdb.magic=1&reqdb.wmo=99999](https://www.wunderground.com/history/airport/KATT/2017/10/24/MonthlyCalendar.html?req_city=Austin&req_state=TX&req_statename=&reqdb.zip=73301&reqdb.magic=1&reqdb.wmo=99999)

Fort Worth, TX: [https://www.wunderground.com/history/airport/KFTW/2017/10/24/MonthlyCalendar.html?req\\_city=Fort%20Worth&req\\_state=TX&req\\_statename=&reqdb.zip=76101&reqdb.magic=1&reqdb.wmo=99999](https://www.wunderground.com/history/airport/KFTW/2017/10/24/MonthlyCalendar.html?req_city=Fort%20Worth&req_state=TX&req_statename=&reqdb.zip=76101&reqdb.magic=1&reqdb.wmo=99999)

Lawrence, KS: [https://www.wunderground.com/history/airport/KLWC/2017/10/24/MonthlyCalendar.html?req\\_city=Lawrence&req\\_state=KS&req\\_statename=&reqdb.zip=66044&reqdb.magic=1&reqdb.wmo=99999](https://www.wunderground.com/history/airport/KLWC/2017/10/24/MonthlyCalendar.html?req_city=Lawrence&req_state=KS&req_statename=&reqdb.zip=66044&reqdb.magic=1&reqdb.wmo=99999)

Norman, OK: [https://www.wunderground.com/history/airport/KOUN/2017/10/24/MonthlyCalendar.html?req\\_city=Norman&req\\_state=OK&req\\_statename=&reqdb.zip=73019&reqdb.magic=1&reqdb.wmo=99999](https://www.wunderground.com/history/airport/KOUN/2017/10/24/MonthlyCalendar.html?req_city=Norman&req_state=OK&req_statename=&reqdb.zip=73019&reqdb.magic=1&reqdb.wmo=99999)

## **TRIVIA ANSWER:**

Texas

<https://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology>

## WEEK 7 GAMES

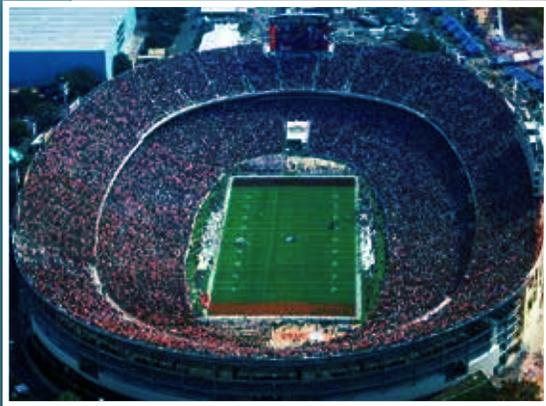
Submitted by Jeff Woolsey,  
Jefferson Middle School, Oklahoma City, OK

Baylor at Oklahoma State  
Oklahoma vs Texas (Dallas)

GAME SCHEDULE  
Oklahoma State vs Baylor  
TCU at Kansas State

Kansas at Iowa State  
West Virginia vs Texas Tech

- Oklahoma will travel to Dallas to play Texas in the Cotton Bowl. While traveling they will cross over a river that forms part of the border between these two states, which is also the namesake of this rivalry. What is the name of this river? How far is each university from the Cotton Bowl?



- Ten universities comprise the Big 12, which university is the oldest and which is the youngest? What state(s) are they located in?
- The Kansas Jayhawks will travel to Ames, Iowa to play the Iowa State Cyclones this weekend. Using a highway map or internet, determine which route they will take from Lawrence to Ames. What major Interstate will they take and what direction? What two large cities will they pass through and how many miles from Lawrence to Ames?
- The Red Raiders of Texas Tech ride into Morgantown, West Virginia to take on the Mountaineers this weekend. West Virginia did not become a state until 1863, and was once a part of another state. Which state was it, and what year did they split? Why did they split from the other state, and what historical event was taking place at this time?



### ➔ OVERTIME ACTIVITY

Lines of latitude circle the earth and run east to west, and tell us how far north or south of the equator a place is located. While lines of longitude runs from the North Pole to the South Pole, and tell us how far

east to west of the Prime Meridian a place is located. Together they form an imaginary grid around our planet. Of all the Big 12 games played this weekend, which game is the closest to the Prime Meridian? The farthest from the Prime Meridian? The closest to the Equator? The farthest from the Equator?



## 8 GRIDIRON GEOGRAPHY 2017

### WEEK 7: OCTOBER 9-OCTOBER 15

#### ANSWERS:

- The Red River, From Norman to Dallas 192.8 Miles, From Austin to Dallas 198.2 miles

<https://en.wikipedia.org/wiki/RedRiverShowdown#Venue>

<http://maps.randmcnally.com/>

- Oldest – Baylor 1845, Youngest – Texas Tech 1923, both are located in Texas

[https://en.wikipedia.org/wiki/Big\\_12\\_Conference](https://en.wikipedia.org/wiki/Big_12_Conference)

- I-35 North, Kansas City and Des Moines, 268.5 Miles

<http://maps.randmcnally.com/#>

- The state was Virginia, and the western regions of Virginia split with the eastern portion 1861 to form West Virginia over secession from the Union during the American Civil War.

<https://en.wikipedia.org/wiki/HistoryofWestVirginia>

#### OVERTIME ANSWER:

Closest to the Prime Meridian – Texas Tech vs. West Virginia (Morgantown, WV at 79.95°W)

Farthest from the Prime Meridian – Baylor vs. Oklahoma State (Stillwater, OK 97.05°W)

Closest to the Equator – Oklahoma vs. Texas (Dallas, TX 32.77°N)

Farthest from the Equator - Kansas vs. Iowa State (Ames, IA at 42.03°N)

<http://study.com/academy/lesson/what-is-the-prime-meridian-definition-facts-location.html>

#### TRIVIA ANSWER:

About 2.6 miles NW of the center of the town of Lebanon Kansas.

Latitude 39.50°N, Longitude 98.35°W. Definition - being in actual contact: touching along a boundary or at a point, touching or connected throughout in an unbroken sequence.

[https://en.wikipedia.org/wiki/Geographic\\_center\\_of\\_the\\_contiguous\\_United\\_States](https://en.wikipedia.org/wiki/Geographic_center_of_the_contiguous_United_States)

<https://www.merriam-webster.com/dictionary/contiguous>

# WEEK 8 GAMES

Submitted by Janet Hall,  
Bethany Middle School, Bethany, OK

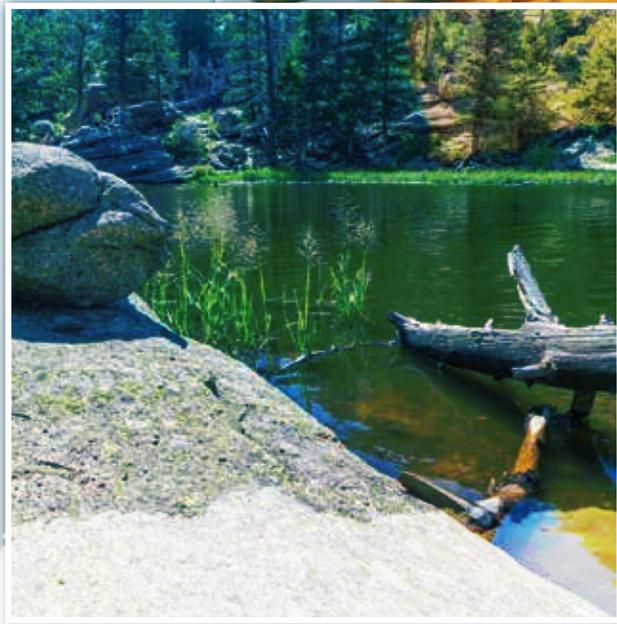
## GAME SCHEDULE

Baylor vs West Virginia  
Oklahoma at Kansas State

Oklahoma State at Texas  
TCU vs Kansas

Iowa State at Texas Tech

- Two teams will travel quite long distances for this week's games. Which two teams are they? Which one of the two teams will travel the farthest to play?
- Lines of latitude go around the globe parallel to the equator. They tell us how far north or south of the equator a place is located. Of the five games played this weekend, which game will be played closest to the equator?
- One of this week's teams is from a university that was started when their land was still claimed by a foreign country. Which university is this and which foreign country still claimed their land?
- The National Festival of Breads is held every June in one of these university cities. Their city is also the home of their state's Wheat Commission. Obviously, wheat farming is very important to their region's economy. What city is this and to what university are they home?



### → OVERTIME ACTIVITY

Towns have historically been founded near rivers because they provide fresh water. What fresh water source attracted early settlers to each of the towns/cities which have teams playing this week?

## WEEK 8: OCTOBER 16-OCTOBER 22

### ANSWERS:

- Iowa State travels to Lubbock, Texas and West Virginia travel to Waco, Texas; West Virginia travels the farthest.

<https://www.google.com/maps/dir/Ames,+Iowa/Lubbock,+Texas/@37.7053393,-102.2012965,6z/data=!3m1!4b1!4m13!4m12!1m5!1m1!1s0x87ee70624634a06b:0x273156083cc75200!2m2!1d-93.6319131!2d42.0307812!1m5!1m1!1s0x86fe12add37ddd39:0x1af0042922e84287!2m2!1d-101.8551665!2d33.5778631>

<https://www.google.com/maps/dir/Morgantown,+WV/Waco,+TX/@35.7844603,-93.0408954,6z/data=!3m1!4b1!4m14!4m13!1m5!1m1!1s0x88357b684185333d:0x78bee909ab8d43e4!2m2!1d-79.9558968!2d39.629526!1m5!1m1!1s0x864f82f1230151d3:0xfbd74b03d6d1aa10!2m2!1d-97.1466695!2d31.549333!3e0>

- Oklahoma State v Texas (Austin, Texas, located at 30°N)

map w/longitude & latitude at <http://www.worldatlas.com/webimage/countrys/usalats.htm>

- Baylor University was established in 1845, after Texas had declared its independence from Mexico but before Mexico actually granted their independence.

One source of information on Baylor's founding is at the university's web site,

<http://www.baylor.edu/about/index.php?id=89381> This gives the date of their founding.

One site that explains Mexico's continued claim on Texas is found at the Texas State Library and Archives Commission at

<https://www.tsl.state.tx.us/exhibits/annexation/part3/question4.html>.

- Kansas State in Manhattan, Kansas

<http://nationalfestivalofbreads.com/national-festival-of-breads> and <http://kswheat.com/about/kansas-wheat-commission>

### OVERTIME ANSWER:

**Kansas State, Manhattan, Kansas:** Big Blue River. (This river changed course after a major flood in 1903, so it now flows about a mile east of the city.)

Source: <http://www.kspatriot.org/index.php/articles/56-kansas-local-history/351-manhattan-kansas-history.html>

**Iowa State, Ames, Iowa:** Skunk River and Squaw Creek  
Source: <http://www.ameshistory.org/content/ames-origin>

**Texas Tech, Lubbock, Texas:** Double Mountain Fork of the Brazos River  
Source: <https://tshaonline.org/handbook/online/articles/rnd04>

**Oklahoma State, Stillwater, Oklahoma:** Stillwater Creek  
Source: <http://www.okhistory.org/publications/enc/entry.php?entry=st037>

**University of Texas, Austin, Texas:** Colorado River  
Source: <http://www.usrivers.info/River.asp?RiverID=81>

**West Virginia University, Morgantown, West Virginia:**  
Monongahela River  
Source: [http://www.wvexp.com/index.php/Monongahela\\_River](http://www.wvexp.com/index.php/Monongahela_River)

**Baylor University, Waco, Texas:** Brazos River  
Source: <http://www.wacohistory.org/items/show/128>

**University of Oklahoma, Norman, Oklahoma:** Little River/  
Canadian River  
Source: <http://www.okhistory.org/publications/enc/entry.php?entry=CL013>

**University of Kansas, Lawrence, Kansas:** Kansas River  
Source: <http://kansasriver.org/learn/life-on-the-kaw/the-historic-kaw/the-lawrence-waterfront/>

**Texas Christian University, Fort Worth, Texas:** Trinity  
River  
Source: <http://www.trinityrivervision.org/aboutus/history>

### **TRIVIA ANSWER:**

OU will play at the higher elevation. Manhattan, Kansas, has a 1063' elevation. "Elevation," when used in geography, refers to how high above (or below) sea level a place is.

<http://www.usclimatedata.com/climate/manhattan/kansas/united-states/usks0358>

<http://www.usclimatedata.com/climate/austin/texas/united-states/ustx2742>

# WEEK 9 GAMES

Submitted by Ginny Rohr,  
Tulsa, OK

GAME SCHEDULE		
Baylor vs Texas Oklahoma vs Texas Tech	Oklahoma State at West Virginia	TCU at Iowa State Kansas vs Kansas State

1. The Cowboys face off with the Mountaineers. Early mountaineers crossed a nearby mountain range to settle in Morgantown. Locate this mountain range on a map and name the highest peak. Calculate the difference of its elevation and the city's location.
2. Two of Kansas' schools are matched this week in the Sunflower State. Sunflowers are among the top oil seed crops in the world. Besides the health benefits of the oil for humans, how is it also beneficial for the environment?

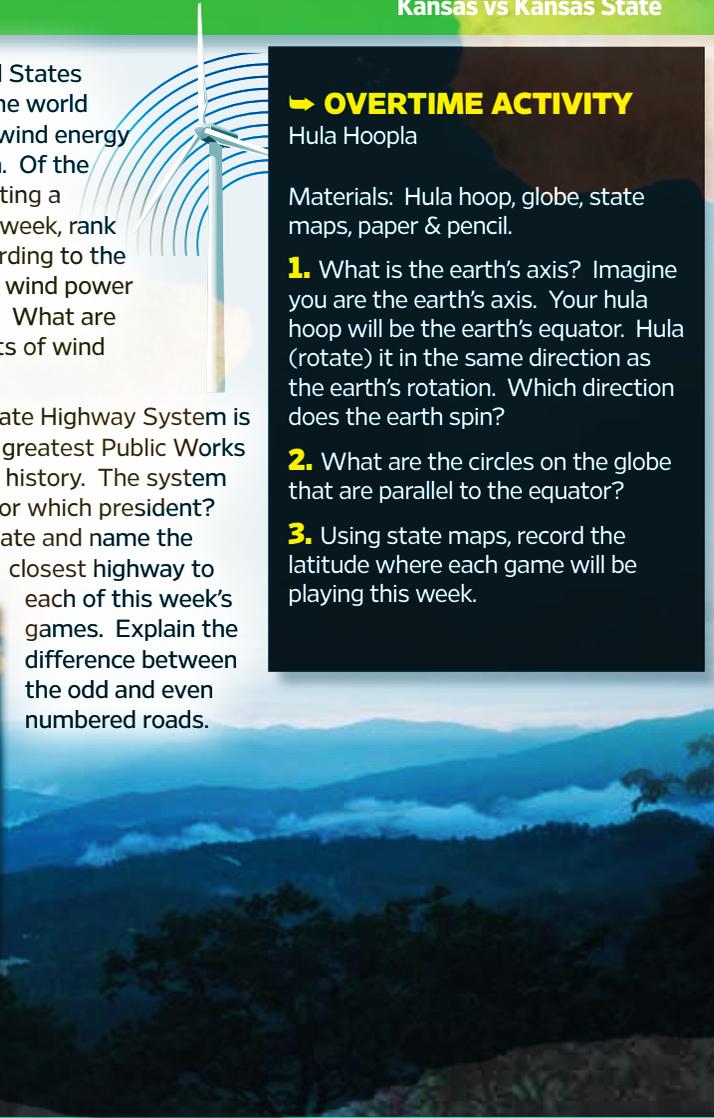
3. The United States is one of the world leaders in wind energy production. Of the states hosting a game this week, rank them according to the amount of wind power generated. What are the benefits of wind energy?
4. The Interstate Highway System is one of the greatest Public Works Projects in history. The system is named for which president? Why? Locate and name the closest highway to each of this week's games. Explain the difference between the odd and even numbered roads.

## → OVERTIME ACTIVITY

Hula Hoopla

Materials: Hula hoop, globe, state maps, paper & pencil.

1. What is the earth's axis? Imagine you are the earth's axis. Your hula hoop will be the earth's equator. Hula (rotate) it in the same direction as the earth's rotation. Which direction does the earth spin?
2. What are the circles on the globe that are parallel to the equator?
3. Using state maps, record the latitude where each game will be playing this week.



### WEEK 9: OCTOBER 23-OCTOBER 29

#### ANSWERS:

1. Appalachian Mountains  
Mount Mitchell – 6,684 ft (2,037 m)  
Morgantown's elevation 960 ft (293 m)  
6,684 – 960 = 5,724 ft (1,744 m)  
  
<https://www.nps.gov/appa/index.htm>  
  
[https://en.m.wikipedia.org/wiki/Mount\\_Mitchell](https://en.m.wikipedia.org/wiki/Mount_Mitchell)  
  
[https://en.wikipedia.org/wiki/Morgantown,\\_West\\_Virginia](https://en.wikipedia.org/wiki/Morgantown,_West_Virginia)
2. As a biodiesel fuel. It is domestically produced, renewable, and clean burning.  
  
<http://www.kansas.gov/>  
  
<https://www.ers.usda.gov/topics/crops/soybeans-oil-crops/sunflowerseed.aspx>  
  
<http://www.biodiesel.com/biodiesel/>
3. 31.3% Iowa  
23.9% Kansas  
18.4% Oklahoma  
10.0% Texas  
1.9% West Virginia

Note: statistics may vary depending on source

Clean fuel source; does not pollute the air. Does not need water cooling unlike nuclear, coal, or gas-fired powers; uses zero water in its energy generation. It's a domestic source of energy. Wind power is inexhaustible.

<http://www.awea.org/MediaCenter/pressrelease.aspx?ItemNumber=8463>

<http://www.windpowerengineering.com/featured/business-news-projects/wind-supplied-iowa-31-electricity-last-year/>

<https://energy.gov/eere/wind/advantages-and-challenges-wind-energy>

4. Eisenhower; Dwight D. Eisenhower National System of Interstate and Defense Highways. President Eisenhower was a strong proponent of the system and signed the *Federal-Aid Highway Act of 1956*.

Lawrence, KS: I-70  
Morgantown, WV: I-68 and I-79  
Ames, IA: I-35  
Waco, TX: I-35  
Norman, OK: I-35

For the most part the odd numbered roads run north-south and the even numbered roads run east-west.

<https://www.fhwa.dot.gov/interstate/history.cfm>

<https://www.fhwa.dot.gov/interstate/homepage.cfm>

<https://www.fhwa.dot.gov/interstate/finalmap.cfm>

[https://www.fhwa.dot.gov/planning/national\\_highway\\_system/nhs\\_maps/](https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/)

### **OVERTIME ANSWER:**

Imaginary line that runs through the center of the earth from the North Pole to the South Pole. The earth rotates on its axis.

Counterclockwise; eastward

Lines of **latitude**

Lawrence, KS 38.97 N

Morgantown, WV 39.63 N

Ames, IA 42.03 N

Waco, TX 31.55 N

Norman, OK 35.22 N

<https://spaceplace.nasa.gov/seasons/en/>

<http://www.allearningfamily.com/main/earths-rotation-day-and-night/>

<https://www.nasa.gov/audience/forstudents/k-4/dictionary/Latitude.html>

<http://www.latlong.net/>

### **TRIVIA ANSWER:**

Born September 5, 1983

Stoops hired as head coach Dec. 1, 1998

2017 - 1998 = 19 years ago

33 (Riley's age) - 19 = 14 years old

[https://en.wikipedia.org/wiki/Lincoln\\_Riley](https://en.wikipedia.org/wiki/Lincoln_Riley)

[http://www.espn.com/college-football/story/\\_/id/19571249/bob-stoops-steps-coach-oklahoma-sooners](http://www.espn.com/college-football/story/_/id/19571249/bob-stoops-steps-coach-oklahoma-sooners)

<http://www.soonersports.com/ViewArticle.dbml?ATCLID=208803500>

# WEEK 10 GAMES

Submitted by LeaAnn Wyrick,  
Broken Bow High School, Broken Bow, OK

Baylor at Kansas  
Oklahoma at Oklahoma State

GAME SCHEDULE  
TCU vs Texas  
West Virginia vs Iowa State

Kansas State at Texas Tech

## → OVERTIME ACTIVITY

Most college students spend countless hours preparing scholarship applications and researching their potential college options. Another important factor when choosing a school, is the city in which the college is located.

**City-Data.com** is a useful tool based on information from the U.S. Census Bureau. This easy-to-use website provides basic information about any town or city in the United States. Search the ten college towns from our game day list on **City-Data.com**. Find the city location on the map, population, median resident age, median gross rent, crime rate, and median income of each town.

1. Iowa State will meet West Virginia this week for a showdown on the gridiron. Lewis and Clark's Corps of Discovery Expedition, stretched from the Midwest to the Pacific Ocean between May of 1804 and September of 1806. The Lewis and Clark National Historic Trail is 3,700 miles long, extending through eleven states, including Kansas and Iowa. Use Google maps to locate and name the other nine states the National Historic Trail Crosses and follow it on the map. Who was the President of the United States who commissioned Lewis and Clark for the Expedition? What were they looking for? How many people were on the expedition?

2. The historic Bedlam rivalry lives on, as the Oklahoma State University Cowboys challenge the University of Oklahoma Sooners. Oklahoma is not only known for great football teams but also for its amazing physical features and wildlife. One of Oklahoma's tiniest inhabitants is its state insect, the honey bee. This small creature is extremely important in nature and to humans. It is estimated



that approximately 1/3 of all food Americans eat is directly or indirectly pollinated by the honey bee! On which continents are honeybees found? How many states have adopted the honey bee as their state insect? What is the biggest threat to honey bees? What are major ways humans are affected by honey bee pollination?

3. West Virginia is often referred to as the southernmost northern state, and the northern most southern state. Regional boundaries have changed throughout history. Due to West Virginia's unique location and shape, the state's history (especially during the Civil War) has been affected by the blurred boundaries. Regional boundaries formally applied to determine the North from the South have included the Rappahannock River, the Potomac River, The Ohio River, Mason-Dixon Line and U.S. Route 40. Look at a map and determine if you think it is a southern state or a northern state. Explain your answer.

4. The Texas Christian University Horned Frogs will take on the Texas Longhorns. Texas is home to King's Ranch, the largest ranch in the U.S. and one of the largest ranches in the world. King's Ranch is located near the town of Kingsville, in South Texas. How large is King's Ranch? Who were the two original owners of the ranch in 1852? What has been the official brand, since the 1860's, for King's Ranch? MAP SKILLS: The four separate divisions of the ranch stretch across which six South Texas counties?



GRIDIRON GEOGRAPHY 2017 10

## WEEK 10: OCTOBER 30-NOVEMBER 5

### ANSWERS:

1. (KS, IA) IL, MO, NE, MT, SD, ND, OR, ID; Thomas Jefferson; A water route to the Pacific Ocean; 31 men, one woman, and one baby

Lewis and Clark National Historic Trail: U.S. National Park Service

<https://www.nps.gov/lecl/index.htm>;

<https://www.monticello.org/site/jefferson/lewis-and-clark-expedition>

2. All but Antarctica; 16 states; Colony Collapse Disorder (CCD); The honeybee benefits humans as a key pollinator for fruits, vegetables, and flowers. The honeybee also plays a vital role in supporting an estimated \$19 billion worth of agricultural crops in the U.S. alone in 2010. In addition to providing honey, honeybees are a key player in world food security and ecosystems.

One Green Planet <http://www.onegreenplanet.org/animalsandnature/why-bees-are-important-to-our-planet/>;

Honey Bee Facts- American Beekeeping Federation; Smithsonian; [https://www.si.edu/Encyclopedia\\_SI/nmnh/buginfo/statebugs.htm](https://www.si.edu/Encyclopedia_SI/nmnh/buginfo/statebugs.htm); [www.honeybeecentre.com](http://www.honeybeecentre.com)

3. Answers will vary. WV is culturally a mixture of northern and southern influences. Today, according to the U.S. Census Bureau, WV is considered to be in the Southern Atlantic Region.

West Virginia State Facts- statefacts.com; The Atlantic <https://www.theatlantic.com/national/archive/2011/01/where-does-the-south-begin/70052/>

4. King's Ranch stretches across 1,300 square miles/ 825,000 acres (larger than the state of Rhode Island), Richard King and Gideon K. Lewis; the famous Running W; Map SKILLS: Brooks, Jim Wells, Kenedy, Kleberg, Nueces, and Willacy

Texas State Historical Association (TSHA) <https://tshaonline.org/handbook/online/articles/apk01>

**OVERTIME ANSWER:**

	Population	Median Resident Age	Median Gross Rent	Crime Rate	Median Income
Waco, TX	130,194	29.3	\$781	362.7	\$36,792
Lawrence, KS	92,763	27.4	\$814	303.8	\$46,564
Norman, OK	118,040	30.9	\$848	197.4	\$54,159
Stillwater, OK	48,406	24.5	\$787	259.8	\$32,576
Fort Worth, TX	812,238	32.6	\$936	396.2	\$55,888
Austin, TX	912,791	32.0	\$1,008	333.8	\$56,351
Morgantown, WV	31,073	24.9	\$833	184.5	\$34,400
Ames, IA	63,266	23	\$766	128.5	\$42,514
Manhattan, KS	56,078	24.4	\$933	n/a	\$45,277
Lubbock, TX	248,839	29.2	\$853	515.8	\$45,551

**TRIVIA ANSWER:**

Waco, TX (130,194 residents) has a higher population than Lawrence, Kansas (92,760 residents)

<http://www.city-data.com/city/Lawrence-Kansas.html>

<http://www.city-data.com/city/Waco-Texas.html>

# WEEK 11 GAMES

Submitted by Jeff Woolsey,  
Jefferson Middle School, Oklahoma City, OK

GAME SCHEDULE		
Baylor vs Texas Tech (Arlington) Oklahoma vs TCU	Oklahoma State at Iowa State Kansas at Texas	West Virginia at Kansas State

- This Big 12 University is located in a city that lies in a region historically and geographically known as the Llano Estacado. This region is one of the largest mesas on the North American continent. Name the university and city it is located in. What is a mesa?
- The Texas Tech Raiders will square off this week against the Baylor Bears. From which city will the team leave, and to which city are they travelling? What route will they take and how many miles?
- Using an atlas or other reference find the names and locations of where 3 of the 5 games will be played this week. The latitude and longitude coordinates for these cities are:  
(1) 39°N, 96°W  
(2) 35°N, 97°W  
(3) 42°N, 937°W
- One of this week's Big 12 games is being played in a city that is also a state capital. It is also the most southerly capital of the contiguous forty-eight states. What city is it and what is the city's nickname?

### → OVERTIME ACTIVITY

Each university has their own mascot, and they are an important visual representation of that school. A mascot fosters and builds unity among the student population by focusing on the positive behavioral features and attributes that the mascot displays. Mascots tend to be animals, but can also be anything from plants, a person or an object. Which of the Big 12 schools mascots are animals? Are birds? Are human or an object? Create a table and list out each school and their mascot. If you had a mascot, who or what would it be and why?

## WEEK 11: NOVEMBER 6-NOVEMBER 12

### ANSWERS:

- Texas Tech University is in Lubbock, Texas. A mesa is Spanish for table and is an elevated area of land with a flat top and sides that are usually steep cliffs.  
[https://en.wikipedia.org/wiki/Lubbock,\\_Texas](https://en.wikipedia.org/wiki/Lubbock,_Texas)  
[https://en.wikipedia.org/wiki/Llano\\_Estacado](https://en.wikipedia.org/wiki/Llano_Estacado)  
<https://en.wikipedia.org/wiki/Mesa>
- Lubbock to Waco. Take highway 84 to Interstate 20 to Ft. Worth and then I-35 to Waco. It is about 398 miles.  
<http://maps.randomcally.com/#>
- 1) Manhattan, KS (2) Norman, OK (3) Ames, IA  
<http://www.findlatitudeandlongitude.com/>
- Austin, Texas and its nickname is the "Live music capital of the world."  
[https://en.wikipedia.org/wiki/Austin,\\_Texas](https://en.wikipedia.org/wiki/Austin,_Texas)

### TRIVIA ANSWER:

The 4 time zones are: Eastern, Central, Mountain, and Pacific. The Big 12 schools are in the Eastern and Central time zones  
[http://www.timetemperature.com/tzus/time\\_zone.shtml](http://www.timetemperature.com/tzus/time_zone.shtml)

### OVERTIME ANSWER:

	BU	ISU	KU	KSU	OU	OSU	TCU	UT	TTU	WVU
Animal	Bear			Wildcat			Horned frog	Longhorn		
Bird		Cardinal	Jayhawk							
Human					Sooner	Cowboy			Raiders	Mountaineers

# WEEK 12 GAMES

Submitted by Janet Hall,  
Bethany Middle School, Bethany, OK

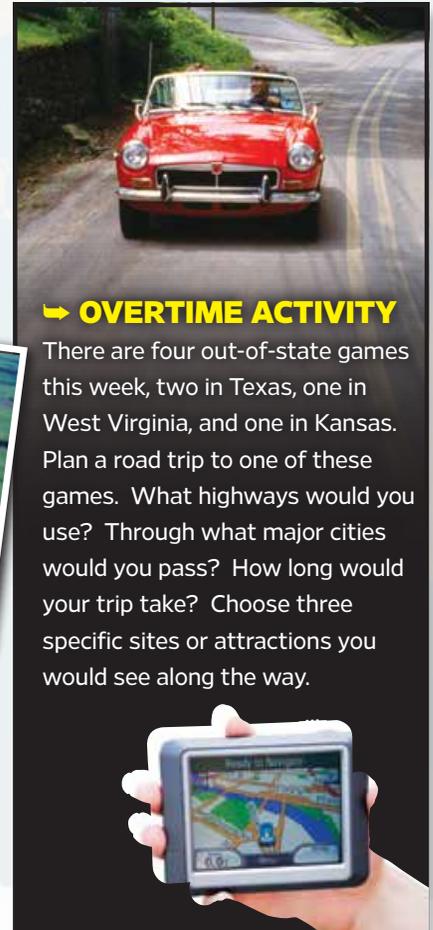
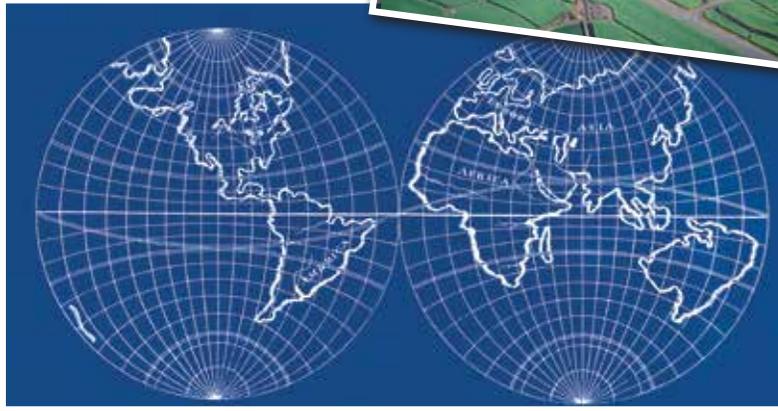
## GAME SCHEDULE

Baylor vs Iowa State  
Oklahoma at Kansas

Oklahoma State vs Kansas State

TCU at Texas Tech  
West Virginia vs Texas

1. Lines of longitude run from the North Pole to the South Pole. They tell us how far east or west of the Prime Meridian a place is located. Of the four games played this weekend, which game is closest to the Prime Meridian?
2. Two of the schools with games this week were started several years before their territory was a state. Which schools were they, and how many years after they began did their territory receive statehood?
3. Four of this week's teams are from universities which were originally set up as land-grant colleges. What four schools began this way, and what are land-grant colleges?
4. The state motto of West Virginia is, "Mountaineers are always free." Although West Virginia University calls themselves the Mountaineers, most state mottos do not end up being part of universities' mascots. The other teams playing this week are from Texas, Kansas, and Oklahoma. What are the state mottos for those three states?



### ➔ OVERTIME ACTIVITY

There are four out-of-state games this week, two in Texas, one in West Virginia, and one in Kansas. Plan a road trip to one of these games. What highways would you use? Through what major cities would you pass? How long would your trip take? Choose three specific sites or attractions you would see along the way.

GRIDIRON GEOGRAPHY 2017 13

## WEEK 12: NOVEMBER 13-NOVEMBER 19

### ANSWERS:

1. Texas v. West Virginia (Morgantown, W. Virginia, located at 80°W)

map w/longitude & latitude at

<http://www.worldatlas.com/webimage/countrys/usalats.htm>

2. OU, 17 years (founded in 1890)  
<http://www.citytowninfo.com/school-profiles/university-of-oklahoma-norman-campus/>;

OSU, (founded in 1890)  
<http://timeline.okstate.edu/>

Note to teacher: Both OU and OSU began classes two years after they were founded, so students may give 1892 as the start date. Baylor was founded about two weeks before Texas became a state.

3. Kansas State, Oklahoma State, Iowa State, and West Virginia University

Land-grant colleges were first funded by Congress in 1862 for states to set up colleges that focused on practical skills such as agriculture, science, and engineering.

[http://www.higher-ed.org/resources/land\\_grant\\_colleges.htm](http://www.higher-ed.org/resources/land_grant_colleges.htm) and <https://www.nap.edu/read/4980/chapter/2>

4. Texas – Friendship; Kansas – To the stars through difficulties (Ad astra per aspera); Oklahoma – Labor conquers all things (Labor omnia vincit)

<http://state.1keydata.com/state-mottos.php>

### OVERTIME ANSWER:

Answers vary

### TRIVIA ANSWER:

The Arkansas River

[http://nemwuppermiss.blogspot.com/2014/08/mississippi-river-basin-water-resource\\_21.html](http://nemwuppermiss.blogspot.com/2014/08/mississippi-river-basin-water-resource_21.html)

# WEEK 13 GAMES

Submitted by Bill Amburn,  
Bartlesville, OK

## GAME SCHEDULE

Baylor at TCU  
Oklahoma vs West Virginia

Oklahoma State vs Kansas

Kansas State vs Iowa State  
Texas vs Texas Tech

1. A few of the games this week will be played in Texas over the Thanksgiving holiday. One Texas State Park is home to the second largest canyon in the United States. Name this Texas treasure.



2. Both OU and OSU play their games at home this week. If Cowboy and Sooner fans wanted to getaway and spend their Thanksgiving holiday in a place that feels more like Colorado than Oklahoma



they could head to a state park in southeast Oklahoma. This park has a mountainous area with pine and hardwood forests, Mountain Fork River, Broken Bow Lake, hiking trails, horseback riding, canoeing, and trout fishing. Name this famous Oklahoma State Park.

3. The Prairie Spirit Trail is a great place to take a break from the indoors and go for a bike ride or a hike. This trail extends 51 miles along a former railroad bed and connects 10 rural communities. Which Big 12 Fans are most likely to take advantage of this trail? The trail is located in what plains?

4. West Virginia plays Oklahoma but many Mountaineers won't make the trek to Norman. Instead, they can head to a State Forest east of Morgantown for some hiking, trout fishing, and animal watching. This forest is named after a man who hid for years trying to escape law enforcement. Hikers will want to check out the view of the Cheat River Gorge from the rock cliffs. Name this West Virginia State Forest and the mountain range in which it is



### → OVERTIME ACTIVITY

This Thanksgiving many will travel to the Great Salt Plains State Park in Oklahoma. The truly fascinating, flat, white ground looks out of place in Oklahoma but holds buried treasure. Take a look at the website <http://www.travelok.com/listings/view.profile/id.3204> for information and answer the following.

Where is it located in Oklahoma? How salty is the lake? Why does it have so much salt? What unusual item can be dug up from the Great Salt Plains?

### WEEK 13: NOVEMBER 20-NOVEMBER 26

#### ANSWERS:

1. Palo Dura Canyon

<http://www.palodurocanyon.com/>

2. Beavers Bend State Park

<http://www.travelok.com/listings/view.profile/id.422>

3. Kansas and Kansas State, Great Plains

<http://ksoutdoors.com/State-Parks/Locations/Prairie-Spirit-Trail>

4. Coopers Rock State Forest, Appalachian mountains

<http://www.coopersrockstateforest.com/>

#### OVERTIME ANSWER:

Northwest Oklahoma, east of Cherokee and north of Jet, or northwest of Enid  
It is about half as salty as the oceans  
It is salt left from a prehistoric ocean that covered Oklahoma  
Hour glass shaped selenite crystals which are a crystalline form of gypsum

#### TRIVIA ANSWER:

Iowa, either the Interior Plains, Central Lowlands, or Central Plains

<http://www.iowadnr.gov/Places-to-Go/State-Parks/Iowa-State-Parks/ParkDetails/ParkID/610127>

# WEEK 14 GAMES

Submitted by Dr. J. Scott Greene,  
University of Oklahoma, Norman, OK

## GAME SCHEDULE

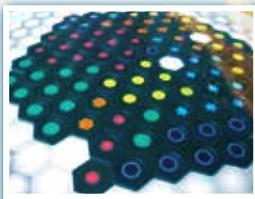
### Big 12 Championship



1. Located in Arlington is the International Bowling Hall of Fame and the International Bowling Museum. Bowling balls and bowling pins have been identified in remains dating back as far as 5000 years ago. Where is the location generally considered to be the birthplace of bowling?

2. Also located in Arlington is Six Flags over Texas. It opened in 1961 as the first park in what is now a company with annual revenues of over \$1.25 billion dollars. The park and the company are named after the nations which have flown their sovereign flags over the state of Texas. Name the two European countries whose flags fly over Texas.

3. The national office of the oldest and largest high IQ society, Mensa, is found in Arlington. Mensa was founded in 1946 in Oxford college in the UK, and to be eligible for membership in Mensa one must take a standardized IQ test and score in at least the 98th percentile. Which Scandinavian country, with approximately 1 person out of every 2,000, has the highest per capita rate of Mensa membership?



4. In the 1930s, Arlington was the one of the largest gambling destinations in the country. Nowadays, most people think of Las Vegas when they think of the gaming industry. Casinos on the Las Vegas strip generate over \$6 billion every year in gaming revenue. While this number is impressive, it is small compared to the over \$28 billion per year from a city in Asia. This city has the 8 largest casinos worldwide, one of which had 2014 revenue approximately equivalent to the

money generated along the entire Las Vegas strip. Provide the name of this city and the country in which it resides.

### ↳ OVERTIME ACTIVITY

Arlington straddles a divide between two distinct geological areas. The first is the Eagle Ford Group, which is a sedimentary formation associated with large amounts of oil and natural gas, much of which has recently been unlocked through unconventional extraction methods such as hydraulic fracturing. The second natural feature associated with Arlington is covered with what has been described as "the cast iron forest" due to the hard and tough nature of the oak trees present in this area. Imagine that you are traveling from Oklahoma City to Dallas in the 1700s. Using the resources you can find online, design the fastest route between the two locations, and then also design a travel route that goes AROUND the cross timbers. Estimate how much extra time it would take you to travel around this natural barrier.



whose flags fly over Texas.

## WEEK 14: NOVEMBER 27-DECEMBER 3 ANSWERS:

1. Ancient Egypt  
<http://www.bowlingmuseum.com/Visit/Education/History-of-Bowling>
2. France, Spain  
<http://www.arlington-tx.gov/history/arlington-history/1950-1977/>  
<https://www.sixflags.com/overtexas/news-room/about>
3. Finland  
<http://www.theweek.co.uk/76328/the-top-ten-countries-with-the-most-mensa-geniuSES>
4. Macau ,China  
<https://www.gamblingsites.org/blog/7-best-casino-gambling-destinations-world/>

## OVERTIME ANSWER:

Answers Vary

## TRIVIA ANSWER:

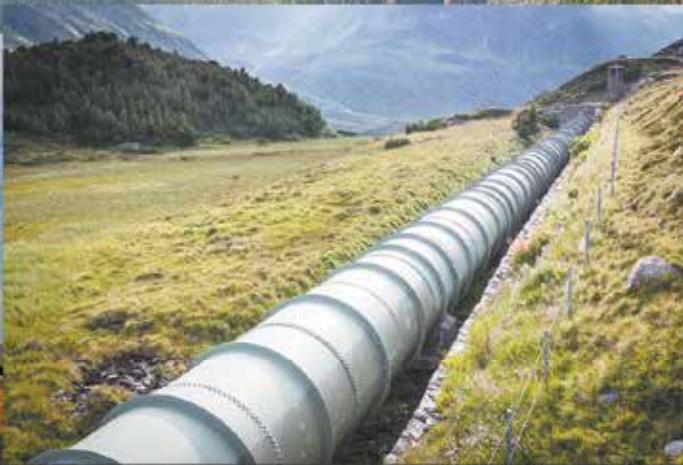
Greenville, South Carolina  
<https://www.census.gov/newsroom/press-releases/2017/cb17-81-population-estimates-subcounty.html>



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