# Ultimate QuizBowl Guide









This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 license, some rights reserved. You are allowed to copy, distribute and modify this work as long as the following conditions are met:

- 1. Attribution: The original author(s) of the work must be given proper credit.
- 2. Non-commercial: This work cannot be used for commercial purposes.
- 3. Share-Alike: If you modify this work, the work that is created must be shared under the same license.

# Contents

1	$\mathbf{Intr}$	oductio	on	1
2	Cur	rent Ev	vents	3
	2.1	Introdu	action to Current Events	3
	2.2	Busines		3
		2.2.1	US-China Trade War	3
			Fed Policy	4
			Cryptocurrency and Blockchain	4
			Gig Economy	5
			Retail Apocalypse	5
	2.3			5
			Scandals	5
			Foreign relations	5
	2.4			5
			Astronomy	5
			Biology	5
3	Tho	Arts		7
J	3.1	Visual		7
	5.1		Architecture	7
			Sculpture	9
		_	Painting	9
			Other	10
	3.2	_		10
	3.2		Plays	10
		_	·	10
		_	Operas	10
				10
		_		10
		ა.⊿.ა	Religious	10
4	Geo	graphy		15
	4.1	Genera	l World Geography	15
	4.2	Contine	ents	15
		4.2.1	Africa	15
		4.2.2	Antarctica	16

iv CONTENTS

	4.2.3 Asia
	4.2.4 Australia and Oceania
	4.2.5 Europe
	4.2.6 North America
	4.2.7 South America
4.3	Oceans
5 His	ory
5.1	Ancient History
5.2	American History
	5.2.1 American Prehistory
	5.2.2 Early Humans in North America
	5.2.3 Colonial America
	5.2.4 American Revolution
	5.2.5 America under the Articles of Confederation
	5.2.6 From the Constitution to the War of 1812
	5.2.7 War of 1812
	5.2.8 From 1812 to the Civil War
	5.2.9 Civil War
	5.2.10 Reconstruction
	5.2.11 From Reconstruction to Spanish American War
	5.2.12 Spanish American War
	5.2.13 From The Spanish American War to World War I
	5.2.14 World War I
	5.2.15 From World War 1 to the The Great Depression
	5.2.16 The Great Depression
	5.2.17 World War II
	5.2.18 1990's to Present
	5.2.19 Presidents
	5.2.20 Supreme Court Cases
	5.2.21 Congress
5.3	European History
5.4	Religious History
	5.4.1 Judaism
	5.4.2 Christianity $\dots$
	5.4.3 Islam
	5.4.4 Buddhism
	5.4.5 Hinduism
	5.4.6
5.5	World History
$_{ m Lite}$	rature
6.1	General Literature Trivia
	6.1.1 Opening Lines
6.2	American Literature

CONTENTS v

		6.2.1 Fiction
		6.2.2 Nonfiction
		6.2.3 Poetry
	6.3	European Literature
		6.3.1 Fiction
		6.3.2 1984
		6.3.3 Nonfiction
		6.3.4 Poetry
	6.4	Religious Literature
	0.1	6.4.1 Abrahamic Religions
		6.4.2 Eastern Religions
		6.4.3 Talmud
	6.5	World Literature
	0.0	World Englande
7	Mv	thology 35
	$7.1^{\circ}$	Greek/Roman
	7.2	Egyptian
	7.3	Hawaiian/Polynesian
	7.4	Norse
	7.5	Mezoamerican         35
	7.6	Indian/South Asian
	7.7	Chinese/Japanese/East Asian
	7.8	Arthurian
	1.0	Titolianan
8	Pop	Culture 37
	8.1	Pop Music
	8.2	Entertainment
		8.2.1 Video Games
		8.2.2 Wrestling
9	Scie	ence 39
	9.1	Astronomy
		9.1.1 Astronomers
		9.1.2 Constellations
		9.1.3 Cosmology
		9.1.4 Solar System
		9.1.5 Stars
		9.1.6 Galaxies
		9.1.7 Telescopes
	9.2	Biology
		9.2.1 Microbiology
		9.2.2 Macrobiology
	9.3	Chemistry
	9.4	Computer Science
	9.5	Earth Science 44

vi *CONTENTS* 

		9.5.1	Geology	 			 					 			44
		9.5.2	Forensic Science	 			 								49
		9.5.3	Meteorology	 			 					 			49
		9.5.4	Oceanography	 			 					 			49
	9.6	Physic	S	 			 					 			49
		9.6.1	Classical Physics	 			 								49
		9.6.2	Thermodynamics	 			 								49
		9.6.3	Modern Physics												49
<b>10</b>		al Scie													51
	10.1	Econor	mics	 			 					 			51
		10.1.1	Historical Economics	 			 					 			51
		10.1.2	Economists	 			 					 			51
	10.2	Psycho	ology	 			 					 			51
	10.3	Sociolo	ogy	 			 					 			51
	~														
11	Spor		. ,												53
	11.1		sional												53
			Baseball												54
			Teams												54
			Basketball												56
			Boxing												57
			Car Racing												57
		11.1.6	Curling	 			 					 			57
			Cycling												57
		11.1.8	Golf	 			 					 			57
		11.1.9	Gymnastics	 			 					 			58
		11.1.10	Hockey	 			 					 			58
		11.1.11	Figure Skating	 			 					 			58
		11.1.12	Proofball	 			 					 			58
		11.1.13	Skateboarding	 			 					 			58
			Soccer												58
		11.1.15	Softball	 			 					 			58
		11.1.16	Swimming	 			 					 			58
		11.1.17	Tennis	 			 					 			58
		11.1.18	Track and Field	 			 					 			58
			Volleyball												58
			Weight Lifting												58
	11.2		2												59
	_	_	Baseball												59
			Basketball												59
			Golf												59
			Hockey												59
			Football												59
			Soccer						•	•	•	•	•	•	59

CONTENTS	⁄ii
11.3 Olympic Sports	59 50 50 52
F	<b>3</b>
12.1.1 Western Philosophy	3
12.2 Theology	64
12.2.1 Abrahamic Religions	34
12.2.2 Other Religions	64
13 Miscellaneous 6	55

viii *CONTENTS* 

## Introduction

So you've discovered the world of trivia. QuizBowl, High-Q, or whatever name it is called in your area can be great fun to play, and sometimes even casual teams can win if they employ the right strategies and have a little bit of luck. However, a team that wants to win consistently needs to take its preparation a little more seriously.

There are 12 broad categories in quizbowl:

- Current Events
- The Arts
- Geography
- History
- Literature
- Mythology

- Pop Culture
- Science
- Social Science
- Sports
- Theology and Philosophy
- Miscellaneous

A general rule of thumb is that a team should consist of 4 players. Rather than trying to be a generalist at first, each player should pick 3 topics to become an expert in. While progress can be made by looking over lists and old questions, you can become a better player if you create your own lists. Memorizing lists will generally allow you to answer questions at the "giveaway" point in the question, but building detailed lists will allow you to answer questions during the "power" phase of the question. You can practice writing your own questions as well.

When building a team, keep in mind that there are 4 players, and thus the players on your team should pick complementary areas. For instance, if one player is interested in developing their ability to answer science questions, another player should work on history, while another learns about sports, and the final player studies literature. Don't build teams out of groups of your school's "best" players. Instead, build teams where the players' strengths work together synergisticly.

## **Current Events**

### 2.1 Introduction to Current Events

The very nature of current events makes it extremely hard to write a section of a book on this. Studying for the current events means keeping up with the news. Whether it be online news sites like CNN's website, watching the news on TV or even reading the newspaper, you must do this every day to be well informed about current events.

This section will change quite frequently, and some of the current events section will undoubtedly be moved into the "history" section as time passes. For reference, this version of Ultimate QuizBowl Guidewas released on December 16, 2019.

### 2.2 Business

#### 2.2.1 US-China Trade War

The US-China Trade war is an ongoing conflict between the two largest economies in the world: US and China. In 2018, United States President Donald Trump announced that tariffs and other trade barriers would be placed on certain Chinese goods in response to what he called "Unfair Trade Practices." In response, China, under the leadership of Xi Jinping retaliated with tariffs and other trade barriers would be placed on certain products imported from the United States.

- Many farmers have struggled due to inability to export their crops to China.
- Manufacturers have had to pass on higher prices to consumers.
- The trade war has strained relations between the United States and China.
- Stock Market volatility has followed announcements of tariffs and trade-talks.
- Chinese telecommunication manufacturer Huawei received special attention in the trade war. The United States warned its NATO allies that Huawei's equipment is believed to contain exploits that the Chinese Government may control.

### 2.2.2 Fed Policy

Beginning after the Great Recession of 2008, the Federal Reserve instituted a policy of quantitative easing which consisted of the buying of government securities such as bonds in order to increase the money supply, and thus encourage lending and investment. This led to sustained growth during the Obama presidency years.

Starting in approximately 2016, the Fed began to increase interest rates, going from about 0.1% in 2015 to 2.4% in march of 2019. Signs of global weakness caused the Fed to issue a rate-cut in September to help stimulate the economy. October 2019 is expected to issue another rate-cut.

### 2.2.3 Cryptocurrency and Blockchain

The first cryptocurrency, and with a market dominance of approximately 66% is bitcoin. Bitcoin was introduced in *Bitcoin: A Peer-to-Peer Electronic Cash System*, nicknamed "The White Paper" by its creator, Satoshi Nakamoto in 2008. Its symbol is B. Satoshi Nakamoto is likely a pseudonym for a person or group of persons that created blockchain technology, which solves the "double-spend" problem for peer-to-peer networks.

- The first purchase made with cryptocurrency was two pizzas, sold for \$10000
- In late 2017, Bitcoin hit its all-time high exchange rate of nearly \$20000 for \$1.
- A deluge of "Altcoins" followed the creation of Bitcoin. Some of the most successful are Etherium, Ripple, Litecoin, and Tether. Monero is specifically designed to be untraceable.
- Due to competing ideals, bitcoin itself was hard-forked several times, with the alternatives calling themselves Bitcoin Cash, Bitcoin ABC, Bitcoin SV, and Bitcoin Gold.
- In July of 2017, John David McAfee, the founder of McAfee antivirus software, made a famous prediction that bitcoin would reach B1 = 500,000 in three years, or he would initiate his own creative punishment.
- Facebook is currently working on launching the Libra stablecoin. Regulators aren't looking too favorably on it, and Paypal, Visa, Mastercard, and other companies recently backed out of it.

2.3. POLITICS 5

### 2.2.4 Gig Economy

### 2.2.5 Retail Apocalypse

### 2.3 Politics

#### 2.3.1 Scandals

Scandals involving Donald Trump

Scandals involving Hilary Clinton

Scandals involving Jeffrey Epstein

Scandals involving Joe Biden

Scandals involving other US Politicians

#### 2.3.2 Foreign relations

North Korea

Iran

Libya and Turkey

China and Hong Kong

Latin America

### 2.4 Science

### 2.4.1 Astronomy

Mauna Kea Protests and TMT

Omuamua and C/2019 Q4 Borisov

#### Saturn's Moons

In October of 2019, a team of scientists under Scott S. Sheppard who works at the Carnegie Institution for Science announced they had found 20 new moons in orbit around Saturn, for a grand total of 82. As Jupiter only has 79 known moons, Saturn now has the most known moons in the solar system. All but 2 of the newly discovered moons are in retrograde orbits, and likely were part of a larger moon that broke up or collided with another one.

### 2.4.2 Biology

Chemistry

**Physics** 

# The Arts

### 3.1 Visual

### 3.1.1 Architecture

Antoni Gaudí

Frank Lloyd Wright

Mies Van der Rohe

Philip Johnson

Eero Saarinen

Richard Rogers

Frank Gehry

Norman Foster

Renzo Piano

Santiago Calatrava

Zaha Hadid

Oscar Niemeyer

Rem Koolhas

Jeanne Gang

Shigeru Ban

3.1. VISUAL 9

### 3.1.2 Sculpture

**Praxiteles** 

Donatello

Michelangelo

Gianlorenzo Bernini

Auguste Rodin

Constantin Brancusi

Alberto Giacometti

Henry Moore

Sol LeWitt

Louise Bourgeois

### 3.1.3 Painting

Marciel Duchamp

**Edward Hopper** 

Andy Warhol

Salvador Dali

Pablo Picasso

Vincent VanGogh

Sandro Botticelli

Monet

Georges Sevrat

Rembrant

Francisco Goya

El Greco

**Grant Wood** 

Caravaggio

Hokusai

Eugene Delacroix

William Blake

This Section is about William Blake's Artwork. To see his writings, see 6.3.4 on page 31

### 3.1.4 Other

## 3.2 Performing

### 3.2.1 Plays

Greek

Shakespeare

For Shakespere's poetry, see 6.3.4 on page page 31

**Modern Plays** 

**Arthur Miller** 

3.2.2 Operas

Gilbert and Sullivan

**HMS** Pinafore

The Pirates of Penzance

The Mikado

#### 3.2.3 Musicals

Andrew LLoyd Webber

Cole Porter

Leonard Bernstein

Rogers and Hammerstein

3.2.4 Music

3.2.5 Religious

Chant

Te Deum

Let All Mortal Flesh Keep Silence

3.2. PERFORMING

Phos Hilaron (Lumen Hilare) Pange, lingua - St. Thomas Aquinas Dies Irae Religious Hymns A Mighty Fortress is our God - Composed by Martin Luther<sup>1</sup> **Amazing Grace** How Great Thou Art Classical Composers Beethoven Mozart Bach **Brahms** Holst Hayden Chopin Dvorak Handel Tchaikovsky **Aaron Copland** 

Themes Contained in Songs

 $<sup>^{1}</sup>$ see section 5.4.2 page 26

 $\bf Beethoven's~9th~$  - Ode to Joy

Aaron Copeland's Appalacian Spring - Simple Gifts

3.2. PERFORMING

Songs of the Civil War

When Johnny Comes Marching Home

John Brown's Body

Follow the Drinking Gourd

Lincoln and Liberty Too

Bonny Blue Flag

**Battle Cry of Freedom** 

Goober Peas

Marching Through Georgia

Battle Hymn of the Republic was written by Julia Ward Howe. She fell asleep with the lyrics for John Brown's Body in her head. She Awoke the next morning and wrote the new version in the morning twilight.<sup>2</sup>

Ragtime

The Entertainer - Scott Joplin

Maple Leaf Rag - Scott Joplin

Jazz

Rhapsody in Blue - George Gershwin

Rock

Techno

 $<sup>^2\</sup>mathrm{See}$  Howe, Julia Ward. Reminiscences: 1819-1899. Houghton, Mifflin: New York, 1899. p. 275.; Quote available on Wikipedia

# Geography

## 4.1 General World Geography

Highest Peak	Mt. Everest	On the Border between Nepal and China;
Furthest from Center of Earth	Chimborazo	Ecuador
Greatest Vertical Drop	Mt. Thor	Barrin Island, CA, 4,101 feet
Lowest point on land	Dead Sea	Israel
Lowest point in the Ocean	Challenger Deep	In the Mariana Trench
Tallest Waterfall	Angel Falls	Venezuela
Longest River	Nile	Africa
Largest River by Volume	Amazon	South America
Deepest River	Congo	Africa
Largest Lake	Caspian Sea	Europe
Deepest Lake	Lake Baikal	Russia
Largest Continent	Asia	
Smallest Continent	Australia	
Largest Ocean	Pacific	
Smallest Ocean	Arctic	

## 4.2 Continents

### 4.2.1 Africa

#### Random Trivia

• Africa is the only continent in all four Hemispheres (Northern, Southern, Eastern, Western)

- 4.2.2 Antarctica
- 4.2.3 Asia
- 4.2.4 Australia and Oceania
- **4.2.5** Europe
- 4.2.6 North America

Canada

By Provinces and Territories

Rivers, Lakes, and Bodies of Water

Mexico

By States and Territories

Rivers, Lakes, and Bodies of Water

4.2. CONTINENTS 17

### **United States**

By States and Territories You should know the following states and territories.

State	Capital	Nickname	Highest Point
Alabama	Montgomery	The Yellowhammer State	Cheana Mountain
Alaska			
Alaska			
Arizona			
Arkansas			
California			
Colorado			
Connecticut			
D.C.			
Delaware			
Florida			
Georgia			
Hawaii			
Idaho			
Illinois			
Indiana			
Iowa			
Kansas			
Kentucky			
Louisiana			
Maine			
Maryland			
Massachusetts			
Michigan			
Minnesota			
Mississippi			
Missouri			
Montana			
Nebraska			
Nevada			
New Hampshire			
New Jersey			
New Mexico			
New York		_	
North Carolina			
North Dakota			
Ohio			
Oklahoma			

Austin	The Lone Star State	Guadalupe Peak
	Austin	Austin The Lone Star State

4.3. OCEANS 19

#### Rivers, Lakes, and Bodies of Water

The Great Lakes - There are 5 great lakes located along or near the US-Canada border. At the end of the last Ice Age, there was a glacial lake, called Lake Agassiz that was larger than all of the lakes combined.

- Lake Superior Is the largest and deepest of all the great lakes. It is mentioned in the Gordon Lightfoot song *The Wreck of the Edmund Fitzgerald*. The Chippewa called the lake *Gitchigumi*. Cities on Lake Superior include Duluth, MN, Thunder Bay, Ontario, and Sault Ste. Marie is located between lakes Superior and Huron.
- Lake Michigan Chicago, Il, Green Bay, WI, and Gary, IN are located on lake Michigan. It separates Michigan's upper peninsula from the rest of Michigan.
- Lake Huron
- Lake Erie Detroit, MI, Toledo OH, Cleveland OH, Erie PA, and Buffalo, NY are all located on the shores of lake Erie. Niagara falls is on the Niagara River that connects Lake Erie to Lake Ontario.
- Lake Ontario

#### Other Lakes

- The Great Salt Lake
- Crater Lake
- Lake of the Woods
- Lake Okeechobee
- Lake Meade
- Lake Tahoe

#### Rivers

#### 4.2.7 South America

### 4.3 Oceans

Though globally all oceans are connected and currents circulate water through all of the ocean, historically, there have been four named oceans: Atlantic, Arctic, Indian and Pacific. Recently, many countries, including the United States have began recognizing a fifth ocean: the Southern Ocean, which is the large ocean area that encircles Antarctica.

Atlantic

Arctic

Indian

Pacific

Southern

# History

5.1	Ancient	History

## 5.2 American History

### 5.2.1 American Prehistory

Geology of North America

Glaciers

Lake Agassiz

Megafauna

Wooly Mamoth

Mastodon

Smilodon

Gylptodon

Giant Sloths

Dire Wolf

### 5.2.2 Early Humans in North America

Bearing Land Bridge

Clovis culture

Native American Tribes

- 5.2.3 Colonial America
- 5.2.4 American Revolution
- 5.2.5 America under the Articles of Confederation
- 5.2.6 From the Constitution to the War of 1812
- 5.2.7 War of 1812
- 5.2.8 From 1812 to the Civil War

**Texas Revolution** 

5.2.9 Civil War

John Brown's Raid

The raid inspired John Brown's Body, and later Battle Hymn of the Republic<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>See section 3.2.5 on page 13.

#### Secession and Ft. Sumter

#### Battles

- 5.2.10 Reconstruction
- 5.2.11 From Reconstruction to Spanish American War
- 5.2.12 Spanish American War
- 5.2.13 From The Spanish American War to World War I
- 5.2.14 World War I
- 5.2.15 From World War 1 to the The Great Depression
- 5.2.16 The Great Depression
- 5.2.17 World War II

The Cold War

- 5.2.18 1990's to Present
- 5.2.19 Presidents

### 5.2.20 Supreme Court Cases

Marbury v Madison

McCulloch v Maryland

Gibbons v Ogden

Dred Scott v Sanford

Plessy v Ferguson

Schenck v United States

Brown v Board of Education

Miranda v Arizona

Roe v Wade

Texas v Johnson

Obergefell v Hodges

5.2.21 Congress

## 5.3 European History

## 5.4 Religious History

5.4.1 Judaism

### 5.4.2 Christianity

**Foundations** 

## Eccumenical Councils of the [Catholic] Church

Council	Year (AD)	Notes				
Council of Jerusalem	about 50	Mentioned in Acts 15				
Council of Nicea	325	Against Arianism; Date of Easter; Nicene Creed				
Council of Constantinople	381	Against Arianism and Pneumatomachi.				
First Council of Ephesus	431	Against Nestorianism; Mary as Mother of God				
Council of Chalcedon	451	Jesus was both true God and true man				
Second Council of Constantinople	553	Against Nestorianism				
Third Council of Constantinople	680-681	Against Monothelitism and monoenergism				
Second Council of Nicaea	787	Against Iconoclasm; altars must contain relics.				
Fourth Council of Constantinople	869-870	Condemned Photius and Iconoclasm				
First Council of the Lateran	1123	Investiture; Clerical Celibacy				
Second Council of the Lateran	1139	Upheld first crusade declarations				
Third Council of the Lateran	1179	Against Waldensian, Cathars.				
Fourth Council of the Lateran	1215	Transubstantiation;				
		Papal Primacy; confession; 5th crusade.				
First Council of Lyon	1245	Frederick II excommunicated; 7th crusade				
Second Council of Lyon	1274	Dominican and Franciscan orders approved.				
Council of Vienne	1311-1312	Knights Templar disbanded				
Council of Constance	1414-1418	Ended Three-Popes Controversy; Conciliarism				
Council of Basel,						
Ferrara and Florence	1431-1445	superiority of the Pope over the Councils				
Fifth Council of the Lateran	1512-1517	purgatory; Mount of piety				
Council of Trent	1545-1563	response to Protestantism; condemns sola fide				
		indulgences; 7 sacraments; biblical canon;				
		this one is huge and really important				
First Council of the Vatican	1870	never officially ended; Papal infallibility				
Second Vatican Council	1962-1965	Mass in vernacular; lots of updates;				
		This one is huge and really important too.				

#### The Great Scism of 1054

### The Protestant Reformation

**Martin Luther** Fun Fact: Martin Luther composed the hymn *A Mighty Fortress is Our God.* It is often sang on Reformation Sunday (The Last Sunday of October, or sometimes October 31).

### John Wesley

John Calvin

### Henry VIII

- 5.4.3 Islam
- 5.4.4 Buddhism
- 5.4.5 Hinduism
- 5.4.6
- 5.5 World History

Literature

## 6.1 General Literature Trivia

## 6.1.1 Opening Lines

These are some of the most famous opening lines, and their sources.

Opening Line	Work	Author
Many years later, as he faced the firing	100 Years of Soli-	Gabriel Garcia
squad, Colonel Aureliano Buendìa was to	tude	Marquez
remember that distant afternoon when his		
father took him to discover ice.		
It was a bright cold day in April, and the	1984	George Orwell
clocks were striking thirteen.		
All happy families are alike; each unhappy	Anna Karenina	Leo Tolstoy
family is unhappy in its own way.		
IF you really want to hear about it, the	The Catcher in the	J. D. Salinger
first thing you probably want to know is	Rye	
where I was born, and what my childhood		
was like		
"Where's Papa going with that ax?" asked	Charlotte's Web	E. B White
Fern to her mother as they were setting the		
table for breakfast.		
In my younger years my father gave me	The Great Gatsby	F. Scott Fitzgerald
some advice that I've been turning over in		
my mind ever since.		
It was a pleasure to burn.	Fahrenheit 451	Ray Bradbury
We slept in what had once been the gym-	The Handmaid's	Margaret Atwood
nasium.	Tale	
In a hole in the ground there lived a hobbit.	The Hobbit	J. R. R. Tolkien
Jewel and I come up from the field, follow-	As I Lay Dying	William Faulkner
ing the path in single file.		
There was no possibility of taking a walk	Jane Eyre	Charlotte Brontë
that day.		
When he was nearly thirteen, my brother	To Kill a Mocking-	Harper Lee
Jem got his arm badly broken at the elbow.	bird	
My suffering left me sad a gloomy.	Life of Pi	Yann Martel
	Lolita	Vladimir Nabokov
sin, my soul.		
The week before I left my family and	Looking for Alaska	John Green
Florida and the rest of my minor life to		
go to boarding school in Alabama, my		
mother insisted on throwing me a going-		
away party.		

As Gregor Samsa awoke one morning from	The Metamorphosis	Franz Kafka
uneasy dreams he found himself trans-		
formed in his bed into a monstrous vermin		
Call me Ishmael	Moby Dick	Herman Melville
They're out there. Black boys in white	One flew over the	Ken Kesey
suits up before me to commit sex acts in	Cuckoo's Nest	
the hall and get it mopped up before I can		
catch them.		
All children, except one, grow up.	Peter Pan	J.M. Barrie
It is a truth universally acknowledged, that	Pride and Prejudice	Jane Austin
a single man in possession of a good for-		
tune, must be in want of a wife.		
In our family, there was no clear line be-	A River runs	Norman Maclean
tween religion and fly-fishing.	through it	
All this happened, more or less.	Slaughterhouse-	Kurt Vonnegut
	Five	
Mother died today.	The Stranger	Albert Camus
It was the best of times, it was the worst	A Tale of Two	Charles Dickens
of times	Cities	
Stately, plump Buck Mulligan came from	Ulysses	James Joyce
the stairhead, bearing a bowl of lather on		
which a mirror and a razor lay crossed.		

## 6.2 American Literature

### 6.2.1 Fiction

William Faulkner

A Rose for Emily

As I Lay Dying

Barn Burning

Light in August

The Hamlet

F. Scott Fitzgerald

The Great Gatsby

**Tender is the Night** - The title is taken from the poem "Ode to a Nightingale" by John Keats.

This Side of Paradise

John Greene

Looking For Alaska

Herman Melville

Moby Dick

J. D. Salinger

The Catcher in the Rye

Kurt Vonnegut

Slaughterhouse-Five

6.2.2 Nonfiction

Silent Spring

6.2.3 Poetry

6.3 European Literature

6.3.1 Fiction

 $6.3.2 \quad 1984$ 

**Animal Farm** 

Ulysses

6.3.3 Nonfiction

Mutiny on the Bounty

## 6.3.4 Poetry

### William Blake

This section is about William Blake's Literature. To learn about Artwork by William Blake, see 3.1.3 on page 9

The Tyger

London

The Lamb

### Shakespeare

For Shakespere's Plays, see 3.2.1 on page 10

### 6.4 Religious Literature

### 6.4.1 Abrahamic Religions

#### **Jewish**

**Bible - Old Testamant)** The Jewish bible (and the Old Testamant for Christians, also recognized by Muslims) is divided into three main sections:

- 1. The Five Books of Moses (Torah or Chumash)
  - (a) Genesis Creation, Adam and Eve, Cain and Abel, Seth, Noah, Abraham, Isaac, Jacob.
  - (b) Exodus The departure of Israelites from Egypt. Moses, Aaron. Water from the rock, quail, and manna.
  - (c) Leviticus Many priestly and ritual laws.
  - (d) Numbers a detailed census of the Israelite in the desert;
  - (e) Deuteronomy the Israelites wander in the desert, and finally come to the promised land.
- 2. The Eight Books of the Prophets (Neviim)
  - (a) Joshua The battle of Jericho and the Conquest of Canaan.
  - (b) Judges The first rulers of Israel.
  - (c) Samuel The rise of King David.
  - (d) Kings David dies, solomon builds a temple. Israel splits into a Northern and Southern Kingdom.
  - (e) Isaiah Tells of the coming of a prophet; Cyrus of Persia is mentioned as the Annoointed one of God.
  - (f) Jeremiah Written in the final years before the Babylonian exile.
  - (g) Ezekial (Spelled Ezekiel by most English-speaking Christians). Apocolyptic Literature.
  - (h) The Twelve (minor prophets) Trei-Assar
- 3. The Eleven Books of the Writings (Kesuvim)
  - (a) Psalms Tehilim
  - (b) Proverbs Mishlei
  - (c) Job Iyov
  - (d) Song of Songs Shir HaShirim
  - (e) Ruth Rus
  - (f) Lamentations Eicha

- (g) Ecclesiastes Koheles
- (h) Esther
- (i) Daniel Doniel
- (j) Ezra/Nehemia
- (k) Chronicles Divrei Hayamim

#### Talmud

#### Christian

The Christian Bible is divided into two parts:

- 1. The Old Testament is shared with the Jewish and Muslim religions. See 6.4.1 on page 32
- 2. The New Testament

#### Muslim

Koran

## 6.4.2 Eastern Religions

Hindu

Buddhist

#### 6.4.3 Talmud

title

## 6.5 World Literature

# Mythology

- 7.1 Greek/Roman
- 7.2 Egyptian
- 7.3 Hawaiian/Polynesian
- 7.4 Norse
- 7.5 Mezoamerican
- 7.6 Indian/South Asian
- 7.7 Chinese/Japanese/East Asian
- 7.8 Arthurian

# Pop Culture

- 8.1 Pop Music
- 8.2 Entertainment
- 8.2.1 Video Games
- 8.2.2 Wrestling

# Science

## 9.1 Astronomy

### 9.1.1 Astronomers

Galileo

Copernicus

Kepler

Cassini

**Edmund Halley** 

Huyguens

Clyde Tombaugh

Kuiper

### 9.1.2 Constellations

Zodiac

Other Constellations

### 9.1.3 Cosmology

### 9.1.4 Solar System

Planets

Mercury

Venus

Earth

Mars
Jupiter
Saturn
Uranus
Neptune
Dwarf Planets
Pluto
Eris
MakeMake
Haumea
Ceres
Sol
Age, Compostion and Size Our Sun is a middle-aged G-Class yellow dwarf <sup>1</sup> , and is approximately 4.6 billion years old. It is composed of mostly Hydrogen (approximately 75%) and Helium (approximately 25%). Other elements make up less that 0.1% of the sun's mass.  It makes up 99.9% of the solar system's mass (with the majority of the remaining mass in Jupiter <sup>2</sup>
Sunspots
Prominences, Solar Flares, and Coronal Mass Ejections
Solar Wind and Solar Flux
Other Objects
Comets
Halley's Comet

<sup>&</sup>lt;sup>1</sup>See **Spectral Class** on page 43. <sup>2</sup>See **Jupiter** on page page 40.

9.1. ASTRONOMY 41

Comet McNaught

Hale-Bopp

Shoemaker-Levi 9

**Asteroids and Meteors** 

**Dwarf Planet Candidates** 

Sedna

Interstellar Objects

### **Space Firsts**

You should learn the following important firsts in space:

Description	Object	Country	Date
First Human-Made Object in Space	Sputnik 1 (Satellite)	USSR	?
First Animal in Space	Laika (Dog)	USSR	?
First Human in Space	Yuri Gagarin	USSR	?
First American in Space	Alan Shepard	USA	?
First Woman in Space	Valentina Tershekova	USSR	?
First American Woman in Space	Sally Ride	USA	?
First Taikonaut	Yang Liwei	China	2003-10-15

#### **NASA**

Manned Missions

Mercury

Gemini

Apollo

Skylab

STS

**ISS** 

#### SLS

Manned

#### **Unmanned Missions**

**Explorer Explorer 1** was the name of the first satellite launched by the USA. It was the response to Sputnik (see page 43), but was significantly more advanced, with sensors that discovered the Van Allen Radiation Belts around the Earth.

Over 80 missions have been launched with the name Explorer. Most have a satellite and are science based.

Pioneer	
Echo	
Ranger	
Mariner	
Viking	
Voyager	
Galileo	
Ulyssees	
Discovery	
Cassini-Huygens	
Messenger	
New Horizons	
Juno	
Dawn	
Russian Space Programs	

9.2. BIOLOGY 43

### Unmanned

Sputnik

Chinese Space Programs

9.1.5 Stars

Types

Hertzsprung-Russel Diagrams

**Spectral Class** 

- 9.1.6 Galaxies
- 9.1.7 Telescopes
- 9.2 Biology
- 9.2.1 Microbiology

Cells

Organelles

9.2.2 Macrobiology

Anatomy

Taxonomy

- 9.3 Chemistry
- 9.4 Computer Science

## 9.5 Earth Science

## 9.5.1 Geology

Geologic Time

**Extinction Level Events** 

Vulcanology

Introduction to Vulcanology

Supervolcanoes

World Volcanoes

#### Hawaiian Volcanoes

#### Introduction to the Hawaiian Volcanoes

The Hawaiian Volcanoes are due to a hot-spot underneath the pacific ocean which has formed the Emperor-Hawaiian Seamount Chain that stretches across the pacific to Japan and Siberia. The volcanoes are on two parallel lines (the Loa Line and the Kea line - the Loa line is south (lower)).

The major islands of Hawaii are:

Hawaii
 Molokai

• Maui • Oahu

• Kaho'olawe • Kauai

• Lanai • Ni'ihau

All of the Hawaiian islands were formed by volcanoes. Only Maui and the Big Island have volcanoes that could still erupt.

#### Volcanoes on the Big Island:

- Kilauea The youngest volcano. Most active on earth. Last erupted in 2018, devastating the lailani estates subdivision. Traditional home the Goddess Pele in Hawaiian mythology.
- Mauna Loa Largest volcano by mass in the world. Second Most active volcano in Hawaii. Last erupted in 1984, nearly destroying the city of Hilo (the largest city on the Big Island).
- Mauna Kea Tallest volcano in the pacific. (Remember, Mauna Loa is Lower in elevation). Site involved in protests due to telescope contruction. Jason Momoa (aquaman actor) Staged his arrest during the protest.
- **Hualalai** Smallest of the five volcanoes on the big island. Known for xenoliths (rock from the mantle brought up in lava flows). Last erupted in 1801. Kona Airport is built on the 1801 lava flow.
- Kohala Oldest on the big island. Experienced a Magnetic Field Reversal. Experienced a huge landslide, fossils were deposited by a huge tsunami.

#### Other Hawaiian Volcanoes

- Haleakalā On the island of Maui. Still considered dormant. Last erupted in 1790.
- Lo'ihi Is the newest of the Hawaiian volcanoes and is still underwater. Will probably break the surface in 100,000 years or so.

#### Kilauea - Things to know about Kilauea:

- One of the most active Volcanoes on earth often classified as the most active.
- Last Erupted 2018
- Semi-persistent Lava Lake at summit, disappeared in 2018.
- Erupted 1983-2018 at Pu'u 'O'o.
- Newest of the Hawaiian Volcanoes on the Big Island. (Lo'ihi is newer, but is still underwater.)
- Summit in Volcanoes National Park, near the town of Volcano.
- Traditional home of the goddess Pele.
- Located on the southeastern part of the Big Island on the Kea Line.

#### 2018 Eruption Facts:

- Erupted in 2018 from fissures in the lower East Rift Zone.
- Fissure 8 became dominant, decimating the Lelani Estates subdivision.
- Lava from the eruption created a new black sand beach.

#### **Recent News:**

• A pool of water has formed where there used to be a lava lake.

#### Random facts:

- Mark Twain once got lost while hiking into Kilauea's Caldera.
- A man fell more that 70 feet into the caldera in May 2019. He was rescued by helicopter.
- Reading Rainbow filmed an episode on Kilauea.
- An eruption in 1790 killed at least 80 native Hawaiians.
- Franklin D Roosevelt was the first president to visit Kilauea.

#### Mauna Loa Things to know about Mauna Loa:

- Mauna Loa is the largest volcano by mass in the world.
- Mauna Loa is a very active volcano, second to Kilauea.
- There are atmospheric and Solar Observatories at the top of Mauna Loa. The Atmospheric Observatory was responsible for the discovery of the Keeling curve for Carbon Dioxide.
- Mauna Loa is 13 679 ft tall, only 300 feet less that Mauna Kea.
- Mauna Loa last erupted in 1984. The eruption nearly destroyed the town of Hilo.
- The summit and eastern flank of Mauna Loa are part of Hawaii Volcanoes National Park.

#### **Recent News:**

• Mauna Loa is currently (as of December 16, 2019) on Yellow alert for volcanic eruption.

•

#### **Random Facts**

- Mauna Loa is one of the 16 Decade volcanoes in the world chosen for monitoring because of their destructive history and proximity to population.
- Coffee and Macadamian Nuts are grown on the slopes of Mauna Loa.

#### Mauna Kea Things to know about Mauna Kea:

- Mauna Kea means "White Mountain" for the snow that often falls on its summit.
- It is the tallest volcano on Earth, and the highest peak in the Pacific, and the higest Island Mountain in the world.
- Mauna Kea is known for its numerous cinder cones.
- Also known as "Mauna a Waikea" meaning "The mountain of Waikea"
- The summit is sacred to Hawaiians, as it is where the Heavens and the Earth meet.
- Mauna Kea last erupted about 4600 years ago.

#### Recent News:

- There are numerous telescopes near the summit of Mauna Kea, including Keck-1 and Keck-2. Gerard Kuiper began the telescope program.
- There have been ongoing protests to the building of the 30-meter telescope at the summit.
- Actor Jason Momoa (Aquaman Actor) staged his arrest as part of the ongoing protests.

#### **Random Facts:**

- There is a glacial lake near the summit of Mauna Kea called Lake Waiau.
- Glacier-quenched Basalt can be found at the top of the mountain, indicating that in the last ice age, there was a glacier that covered the summit. There is evidence of Early Hawaiians quarrying this harder, stronger, heavier rock.
- Measured from its base on the ocean floor, it is the tallest mountain in the world. Adding the sinking into the mantle of the pacific plate, it is nearly 70,000 feet tall, making Mauna Kea comparable to the Olympus Mons volcano on Mars (the largest volcano in the solar system).
- The Mauna Kea Silversword is a plant that is only found on Mauna Kea (Another species of silversword is found on Haleakalā.) In 2003 there were only 41 plants in the wild. Conservation efforts have increased that number to nearly 8000, but the plant is still critically endangered.
- Mauna Kea was the home of Poli'ahu, deity of snow in Hawaiian mythology.
- The botanist David Douglas (for whom the Douglas Fir tree is named) died on Mauna Kea when he fell into a pit trap. He may have been murdered.

9.6. PHYSICS 49

#### Hualālai Things to know about Hualālai:

• Hualālai is the third youngest (and third oldest), and third most active of the five volcanoes on the Big Island.

- Hualālai last erupted in 1801. Despite low levels of activity recently, it is still active and expected to erupt in the next century.
- Hualālai is the westernmost of the Big Island volcanoes.
- A major subfeature of Hualālai is Pu'u Wa'awa'a, Hawaiian for "many-furrowed hill", a volcanic cone standing 372 m (1,220 ft) tall and measuring over 1.6 km (1 mi) in diameter. The cone is made of Trachyte, a type of lava rock that exists no where else on the islands.
- The Kona Airport is built on a lava flow from Hualālai's 1801 eruption.
- Many resorts along the coast near Kona are built on historic Lava flows from Hualālai.

#### **Kohala** Things to know about Kohala:

- Kohala is the oldest of the 5 volcanoes on the Big Island.
- Waipi'o Valley is a large eroded area in Kohala.
- It is old enough to have experienced a Magnetic field reversal that is recorded in its rocks about 780000 years ago.
- King Kamehameha I, the first King of the Kingdom of Hawaii, was born in North Kohala, near Hawi.

#### Hale'akala

#### Lo'ihi

- 9.5.2 Forensic Science
- 9.5.3 Meteorology
- 9.5.4 Oceanography
- 9.6 Physics
- 9.6.1 Classical Physics
- 9.6.2 Thermodynamics
- 9.6.3 Modern Physics

Modern Physics Principles

Atomic and Nuclear Physics

Famous Modern Physics Experiments

# Social Science

- 10.1 Economics
- 10.1.1 Historical Economics
- 10.1.2 Economists
- 10.2 Psychology
- 10.3 Sociology

# Sports

# 11.1 Professional

# 11.1.1 Baseball

## 11.1.2 Teams

Team	Location	Mascot	Venue
Arizona Diamondbacks	Phoenix	D. Baxter the Bobcat	Chase Field
Atlanta Braves	Cumberland	Blooper	SunTrust Park
Baltimore OriolesÂă			
Boston Red Sox			
Chicago White Sox			
Chicago Cubs			
Cincinnati Reds			
Cleveland Indians			
Colorado Rockies			
Detroit Tigers			
Houston Astros			
Kansas City Royals			
Los Angeles Angels			
Los Angeles Dodgers			
Miami Marlins			
Milwaukee Brewers			
Minnesota Twins			
New York Yankees			
New York Mets			
Oakland Athletics			
Philadelphia Phillies			
Pittsburgh Pirates			
San Diego Padres			
San Francisco Giants			
Seattle Mariners			
St. Louis Cardinals			
Tampa Bay Rays			
Texas Rangers			
Toronto Blue Jays			
Washington Nationals			

## All Time Records as of December $16,\,2019$

Highest batting average	Ty Cobb .366	
Most home runs	Barry Bonds	762
Most walks	Barry Bonds	2,558
Most grand slams	Alex Rodriguez	25
Most runs batted in	Hank Aaron 2,2	
Most hits	Pete Rose 4,25	
Most singles	Pete Rose	3,215
Most at-bats	Pete Rose	14,555
Most games played	Pete Rose	3,562
Most runs scored	Rickey Henderson	2,295
Most stolen bases	Rickey Henderson	1,406
Highest slugging percentage	Babe Ruth	.690
Most strikeouts	Reggie Jackson	2,597
Most wins	Cy Young	511
Most losses	Cy Young	316
Most innings pitched	Cy Young 7,3	
Most complete games	Cy Young 749	
Lowest E.R.A.	Ed Walsh	1.82
Most no-hitters	Nolan Ryan	7
Most strikeouts	Nolan Ryan	5714
Most shutouts	Walter Johnson 110	
Most pickoffs	Steve Carlton	144
Most hit batsmen	Gus Weyhing	278
Most home runs allowed	Jamie Moyer	522
Lowest walks plus hits per inning pitched	Addie Joss	0.968
Most saves	Mariano Rivera	652
Highest win-loss percentage	Spud Chandler	71.7%
Most games	Jesse Orosco	1252
Most consecutive scoreless innings pitched	Orel Hershiser	59
Most consecutive games played	Cal Ripken, Jr.	2632
Longest streak of games with a hit	Joe DiMaggio	56
Most hits in one season	Ichiro Suzuki	262
Most All-Star games played	Hank Aaron	25
Most World Series appearances (as a team)	New York Yankees	40

### 11.1.3 Basketball

#### Teams

### NBA

Team	Location	Mascot	Venue
Hawks	Atlanta	Harry the Hawk	State Farm Arena

### **WNBA**

Team	Location	Mascot	Venue
Dream	Atlanta	Star (A Weird Bird-like thing)	State Farm Arena

### All Time Records as of December 16, 2019

Most Career Points Scored	Kareem Abdul-Jabbar	38387
Most Career wins	Kareem Abdul-Jabbar	1,074
Most Points Scored in a Single Season	Wilt Chamberlain	4,029
Most Points Scored in a Single Game	Wilt Chamberlain	100
Most Career Rebounds	Wilt Chamberlain	23974
Most Career assists	John Stockton	15806
Most Career Steals	John Stockton	3,265
Most Career Blocks	Hakeem Olajuwon	3830
Highest points per game average	Michael Jordan	30.12
Most points in a game without any fouls	Michael Jordan	61
Most free throws made	Karl Malone	9,787
Most starts	Karl Malone	1,471
Most games played	Robert Parish	1,611
Highest win percentage by a head coach	Steve Kerr	78.5%
Highest free throw percentage	Steve Nash	90.43%
Most consecutive starts	Karl Malone	1,395
Most dunks	Dwight Howard (Active)	2,697
Most consecutive games played	A.C. Green	1,192
Youngest player to be drafted	Andrew Bynum	17 yrs and 249 days
Youngest NBA debut as a starter	LeBron James	18 yrs and 303 days
Youngest player to start a game	Kobe Bryant	18 yrs and 158 days

The Longest NBA game occurred on January 6, 1951 between the Olympians and Royals. Indianapolis beat Rochester 75-73 after 6 overtimes.

## 11.1.4 Boxing

Name	Notes
Muhammed Ali	
George Foreman	
Mike Tyson	
Floyd Mayweather	
Manny Pacquiao	
Oscar De La Hoya	
Sugar Ray Robinson	
Rocky Marciano	
Joe Louis	

# 11.1.5 Car Racing

# 11.1.6 Curling

# 11.1.7 Cycling

## 11.1.8 Golf

Name	Majors	Wins
Phil Mickelson		
Arnold Palmer		
Jack Nicklaus		
Tiger Woods		
Lee Trevino		

- 11.1.9 Gymnastics
- 11.1.10 Hockey
- 11.1.11 Figure Skating
- 11.1.12 Football
- 11.1.13 Skateboarding
- 11.1.14 Soccer
- 11.1.15 Softball
- 11.1.16 Swimming
- 11.1.17 Tennis
- 11.1.18 Track and Field
- 11.1.19 Volleyball
- 11.1.20 Weight Lifting

11.2. COLLEGE 59

- 11.2 College
- 11.2.1 Baseball
- 11.2.2 Basketball
- 11.2.3 Golf
- 11.2.4 Hockey
- 11.2.5 Football
- 11.2.6 Soccer
- 11.2.7 Tennis

Eventing

# 11.3 Olympic Sports

11.3.1 Summer Olympics
Archery
Badminton
Baseball and Softball
Basketball
Beach Volleyball
Boxing
Canoe/Kayak
Climbing
Cycling
BMX
Mountain
Road
Track
Diving
Equestrian
Dressage
Jumping

Fencing Field Hockey Golf Gymnastics Handball Judo Karate Modern Pentathlon Roller Sport Rowing Rugby 7's Sailing Shooting Soccer Swimming Surfing Synchronized Swimming Table Tennis Taekwondo Tennis Track and Field Triathlon Volleyball (Indoor) Water Polo Weightlifting Wrestling

## 11.3.2 Winter Olympics

Alpine Skiing

Biathalon

Bobsleigh

Cross Country Skiing

Curling

Figure Skating

Freestyle Skiing

Ice Hockey

Luge

Nordic Combined

**Short Track Skating** 

Skeleton

Ski Jumping

Snowboarding

**Speed Skating** 

# Theology and Philosophy

## 12.1 Philosophy

### 12.1.1 Western Philosophy

**Ancient Philosophy** 

**Atomists** 

**Sophists** 

**Socrates** 

Plato

Aristotle

Medieval Philosophy

Thomas Aquinas

William of Ockham

Bonaventure

Scotus

Roger Bacon

Modern Philosophy

**Des Cartes** 

Contemporary Philosophy

Postmodernism

Post-Postmodernism

# 12.2 Theology

## 12.2.1 Abrahamic Religions

Judaism

Christianity

Islam

12.2.2 Other Religions

Buddhist

Hindu

# Miscellaneous