

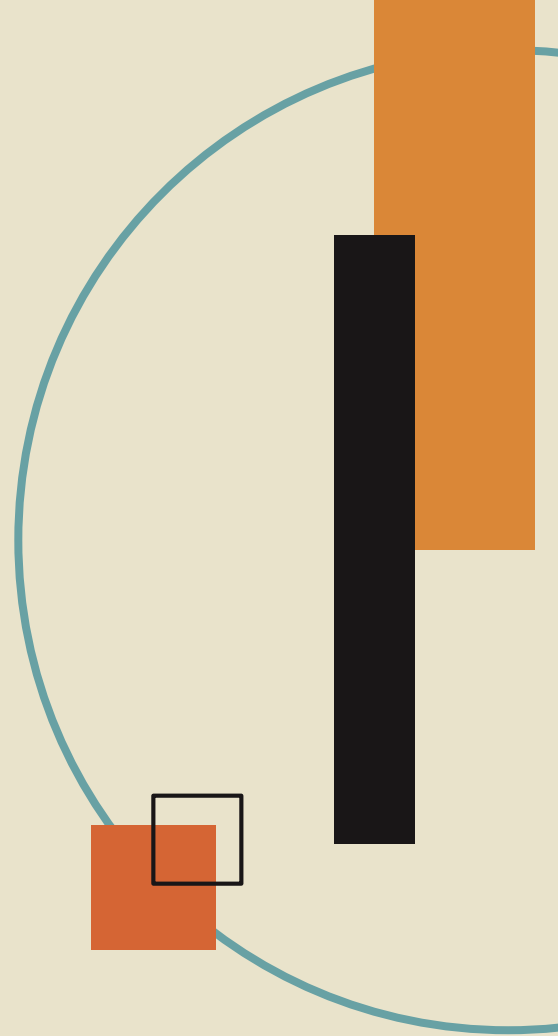
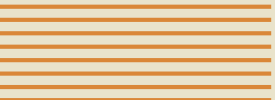
**What is the difference  
between a mineral and  
a rock?**



# Gemstones

“People have treasured gems for many reasons throughout history. Some of these reasons include the use of gems as beautiful decorative ornaments, religious symbols, and amulets and good-luck charms. Gems have also been used for barter and medicinal purposes. Gems have even been used as investments by some people. For others, gems have been used to display wealth, status, and power.”

Source





# Around 200

Natural gemstones around the world



# Classifications of Gemstones



## Precious

Diamonds

Rubies

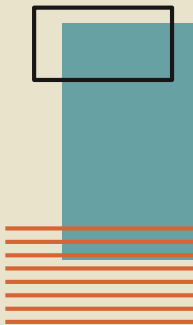
Sapphires

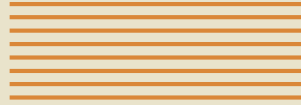
Emeralds



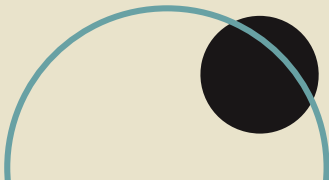
## Semi-Precious

Everything else





**What creates these  
awesome minerals?**





THE MOST  
COLORFUL  
GEMSTONES  
ON EARTH









# Research Into Gemstones

01

## Science

The science behind gemstones

## Geology.com

Gemstones by a great website

03

02

## Information

More information on a number of gemstones

## Locations

Formations and locations of gemstones

04

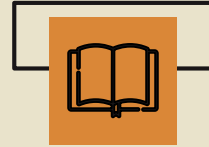


# History of Gemstones



## General

The general history of gemstones



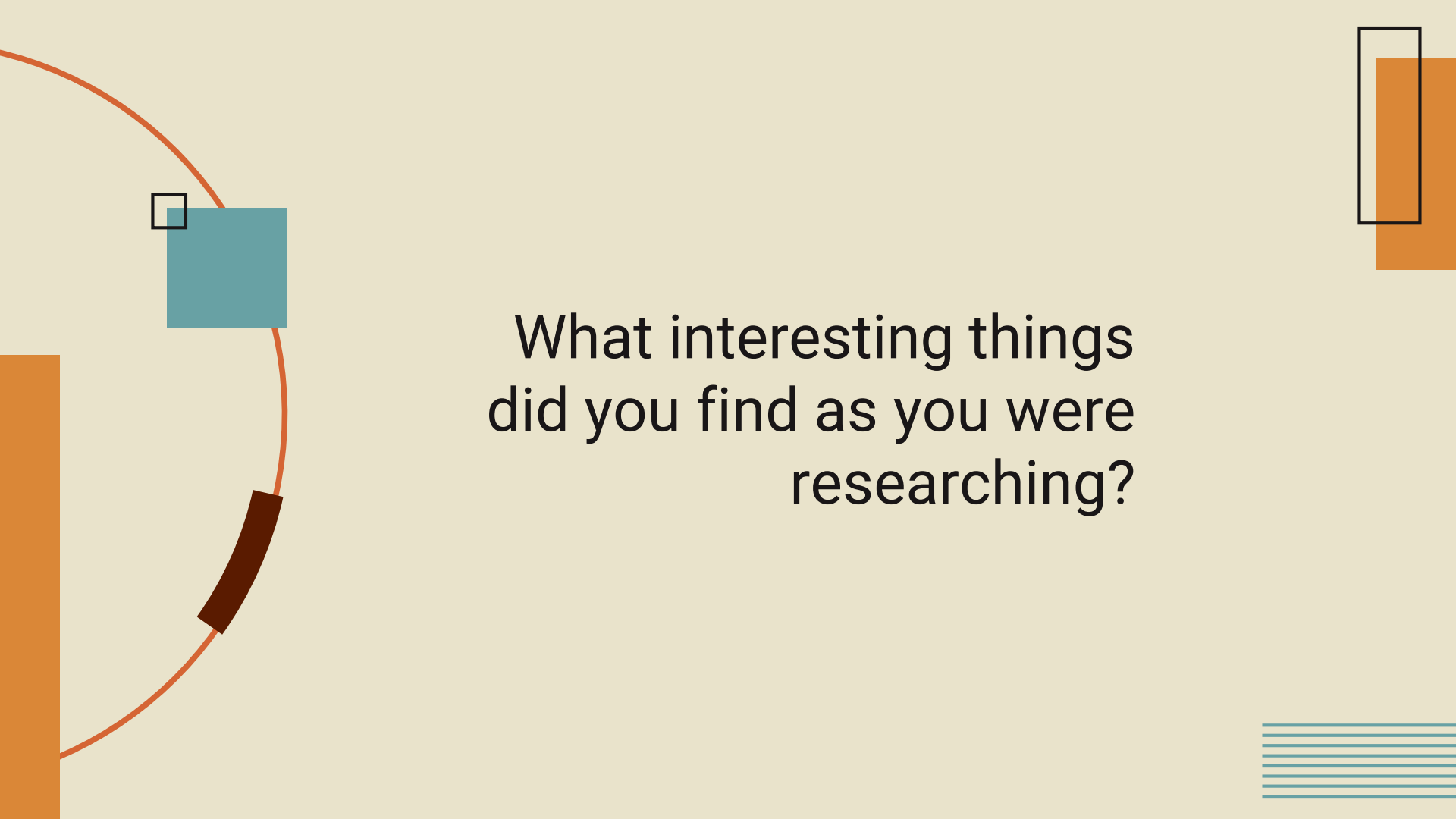
## Specific

Some specific examples of gemstones throughout history



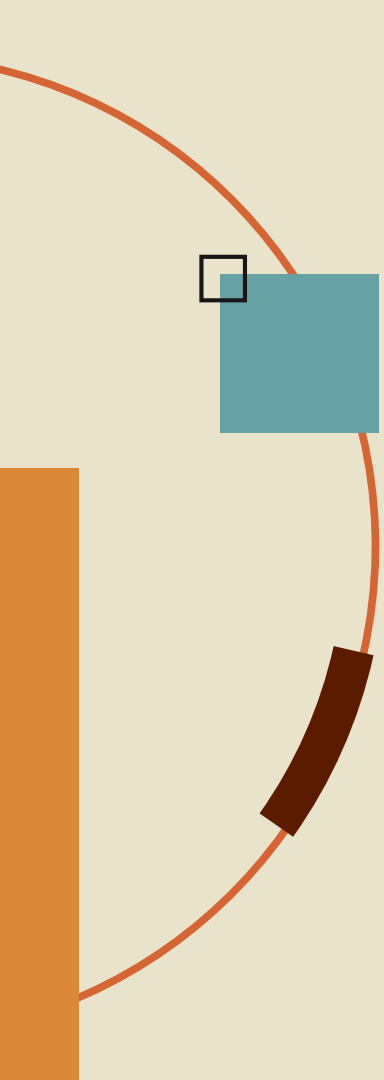
## By Date

How gemstones were found and used categorized by date

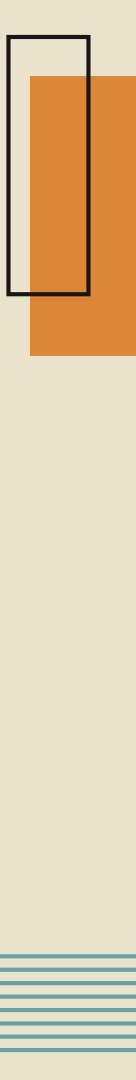


What interesting things  
did you find as you were  
researching?





What month were  
you born in?





WHAT'S YOUR  
**Birthstone?**

# Birthstones Jan - Jun



**January**

Garnet



**February**

Amethyst



**March**

Aquamarine



**April**

Diamond



**May**

Emerald



**June**

Pearl



# Birthstones July - Dec



**July**

Ruby



**August**

Peridot



**September**

Sapphire



**October**

Opal



**November**

Yellow Topaz



**December**

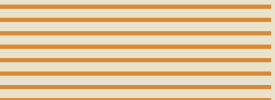
Turquoise

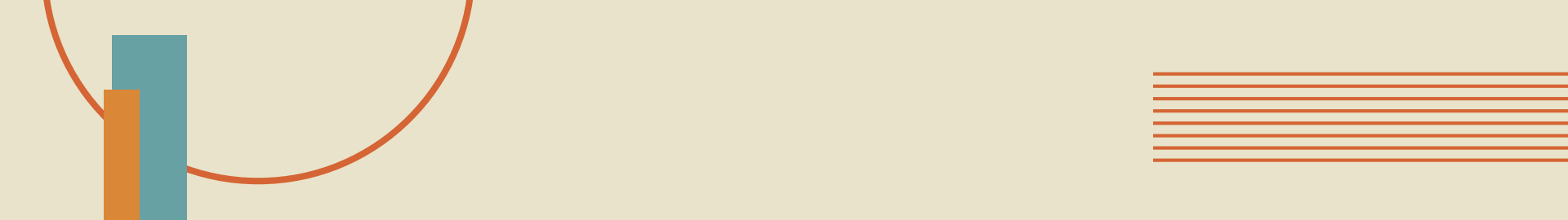




# Birthstones

1. History of birthstones [here](#)
2. Information on birthstones [here](#)
3. Birthstones by months [here](#)
4. Modern by traditional [here](#)
5. In-depth by month [here](#)



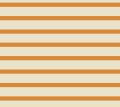


# What did you find?



Now complete your Google Classroom question!

# Most interesting thing



## Websites about gemstones

- <https://www.gempundit.com/gemstones>
- <https://www.gia.edu/gem-encyclopedia>
- <https://geology.com/gemstones/>
- <https://nature.berkeley.edu/classes/eps2/wisc/Lect3.html>
- <https://themineralexchange.com/pages/the-history-of-gemstones>
- <https://www.gemselect.com/gem-info/gemstone-history.php>
- <https://www.gemporium.com/en-us/gemology-hub/article/968/a-history-of-gemstone-discovery>

## Websites about birthstones

- <https://www.gemselect.com/other-info/birthstone-history.php>
- <https://www.gemselect.com/gem-info/birthstones.php>
- <https://www.forbes.com/sites/trevornace/2017/07/02/birthstones-discover-birthstone-color-month/?sh=4f3249491f06>
- <https://www.gemsociety.org/article/birthstone-chart/>
- <https://www.americangemsociety.org/birthstones/>

<https://www.youtube.com/watch?v=VvatqHobeCk>

<https://www.youtube.com/watch?v=3lLbmXz4Nls>

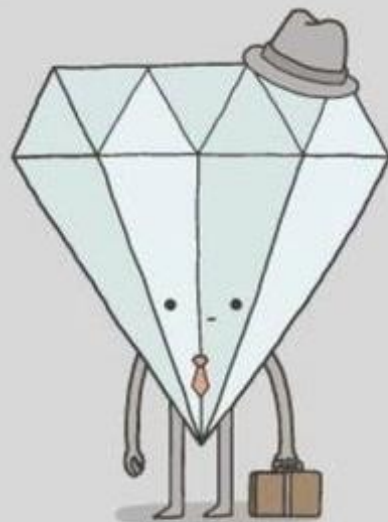
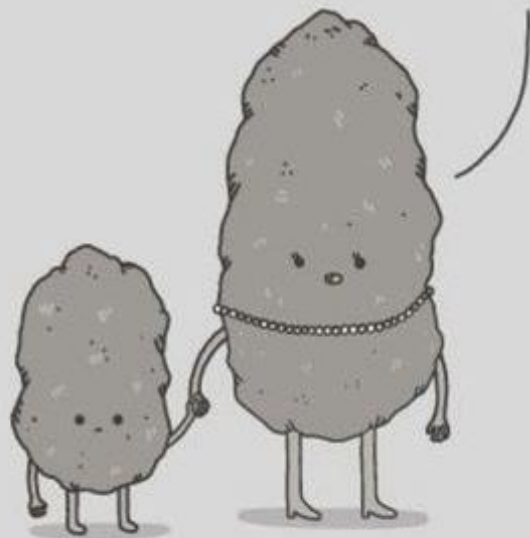
[https://www.youtube.com/watch?v=nw5\\_CvmZYWE](https://www.youtube.com/watch?v=nw5_CvmZYWE)

<https://www.youtube.com/watch?v=6YXKt0bMBJA>





YOUR DAD'S BEEN  
UNDER A LOT OF  
PRESSURE LATELY.



# Mining

As we have talked about, mining can be super destructive to the land AND smuggling and cartels can lead to a bad human element as well.





**Solution - Make gems  
in a lab!**



## Natural Diamonds



A natural diamond is made from carbon and is the hardest natural known thing on man.



**Effects On The Earth**  
1ct of mined diamonds disrupt nearly 100 sqft of land & produces around 6000 lbs of mineral waste.



**Effects On People**  
All in all, mined diamonds result in 1 injury for every 1,000 workers annually.



price(per carat):  
Mined is expensive.



## Lab Grown Diamonds



A lab created diamond is a diamond made of the same material as natural diamonds: pure carbon, crystallized in an isotropic 3D form.



**Effects On The Earth**  
1ct of lab-grown diamonds disrupt just 0.07 sqft of land & produces only 1 lbs of mineral waste.



**Effects On People**  
while lab-grown diamonds result in zero.



price(per carat):  
Lab-grown is 40-50% cheaper than mined diamonds.



**Can you tell the  
difference?**



EPISODE 40.2

# MATERIAL MAGIC



Can you tell the difference?



# Man-Made Gemstones

## Terminology

Differences between  
all terms

01



02



## History

History of making  
synthetic gems

## Processes

Introduction to  
processes used to  
make gemstones

03

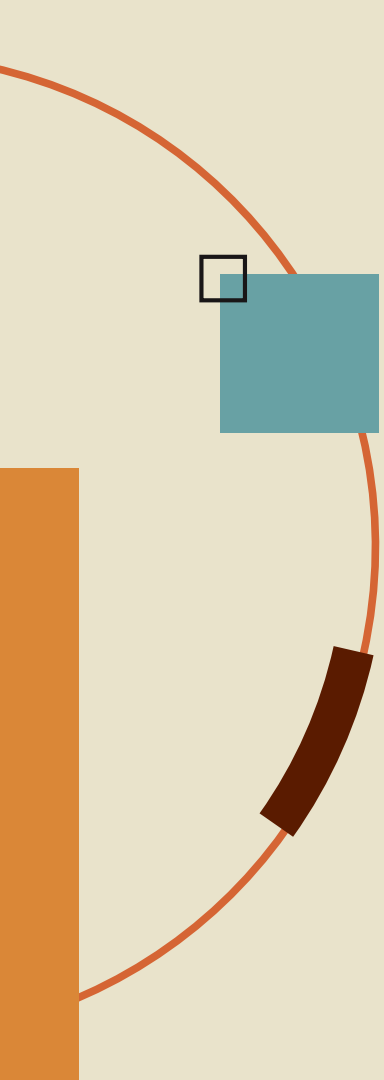


04



## Methods

Discussion on  
methods used to  
create gemstones



What about your  
birthstone? Are  
there synthetic  
gems for them?

