

Science - a branch of knowledge requiring systematic study and method, dealing with substances, life and natural laws.

Scientist - an expert in a science

Scientific Method for Investigations

Scientists try to find patterns in things and look for explanations for the pattern. The scientific method is a way of approaching and solving a problem, or answering a question.



Here's the recipe.

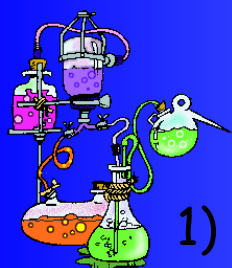
- Ask a question.
 - Gather information.
 - Form a hypothesis, propose a solution.
 - Test the proposed solution.
 - Evaluate the data. Is the hypothesis correct? Does it make sense?
 - Report results. Let others know.
- Make changes. Propose a better solution.



If your methods make sense, then others may accept your hypothesis as a theory. If not, then your hypothesis may be rejected. There is always the possibility that new observations or new information will disprove a long-standing theory.

Homework

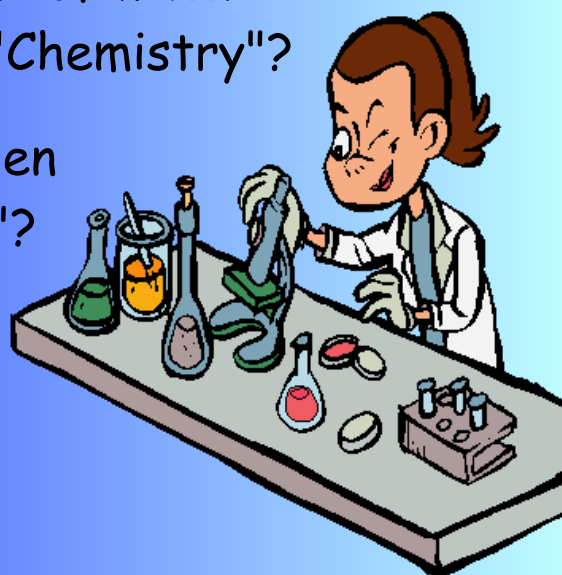
- Name one female scientist and what did they discover.
- Name one Male Scientist and what they discovered
- Name of 4 branches of scientists and what they study



Warm Up

1) What do you think of when you hear the word "Chemistry"?

2) What do you think of when you hear the word "Biology"?



Warm Up

Think about our night sky. In your notebooks write 5 things you know that are in the night sky.

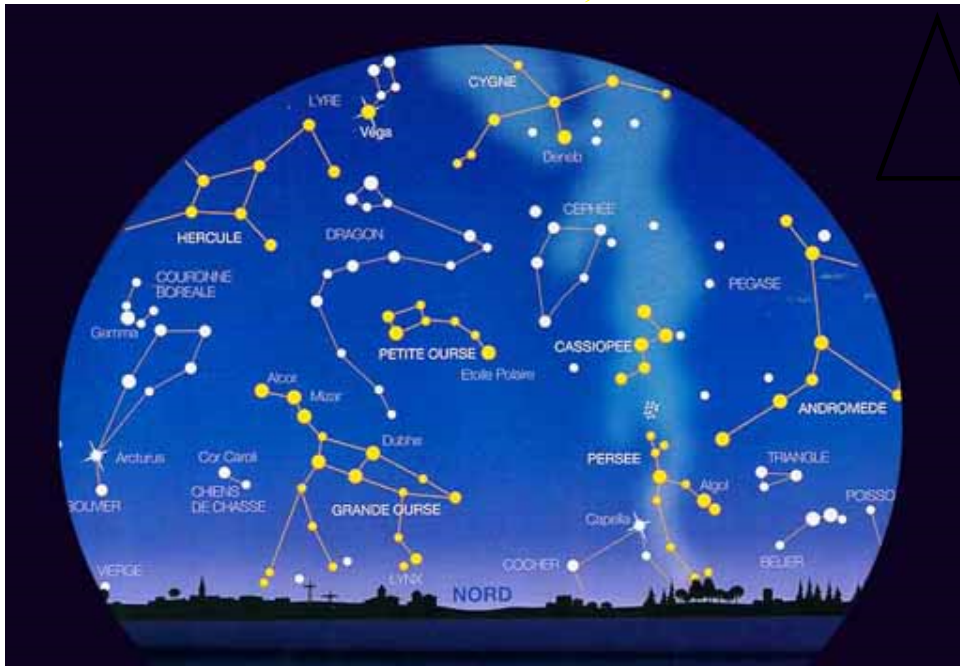
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In the night sky there are many patterns and systems that may not be apparent at first glance.

The universe is everything that exists, including all matter and energy everywhere. The study of what is beyond the Earth is called astronomy.



Stars can take the form of Gods, animals, etc. Groups of stars that seem to form shapes or patterns are called constellations. These stars are far from one another, however by the naked eye they appear close. Constellations have been used as calendars, direction finders, etc.



copy all notes

Constellations

Vocabulary

- ***Astronomer*** - a person who studies the sky
- ***Hemisphere*** - half of the Earth
- ***Light-year*** - the distance light travels in one year (9,458,000,000,000 kilometers)
- ***Magnitude*** - a number that describes how bright a star appears. Smaller numbers mean brighter stars.

What Our Ancestors Saw

Objects in the sky have fascinated humans throughout time. The explanations of how these celestial objects came to be are even more fascinating. Ancients developed their ideas of what was happening in the sky and explained it with their frame of reference. The constellations were patterns that seemed to tell stories about people. Stars are not always in the sky at the same time, but change positions over time - giving rise to the creation of calendars. The Sun and the Moon have their own pattern of rising and setting - the Moon also has phases. Mercury, Venus, Mars, Jupiter, and Saturn were special 'stars' called planets - meaning 'wanderer'.

Myths, folklore and legends were used to explain what ancient people observed in the night sky.

First Nations people of the Pacific Northwest - believed the night sky was a pattern on a great blanket overhead, which was held up by a spinning 'world pole' resting on the chest of a woman named Stone Ribs.

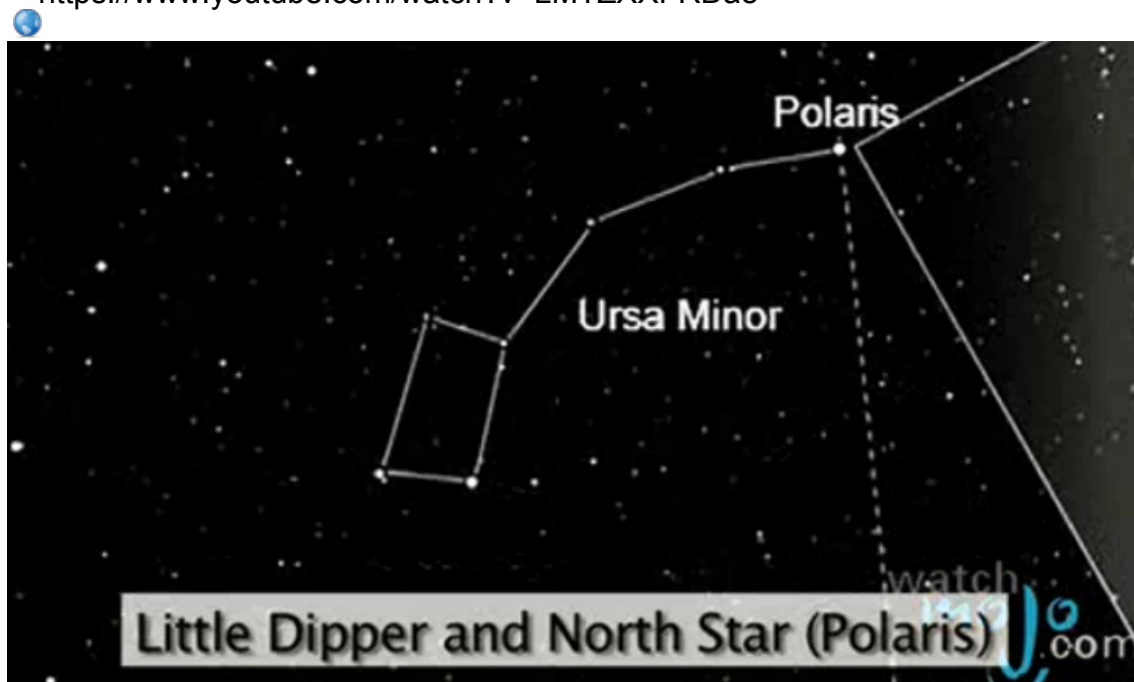
Aboriginal tribes - Algonquins believed the constellation Ursa Major was a bear running from hunters.

Inuit in the high Arctic - used a mitt to determine when seal pups would be born, by holding the mitt at arm's length at the horizon.

Ancient Egyptians - The Sun God - Ra - was carried in a sacred boat across the sky every day.

Constellations

<https://www.youtube.com/watch?v=LMTZXXFRDa8>





A Guide To Learn About The Constellation

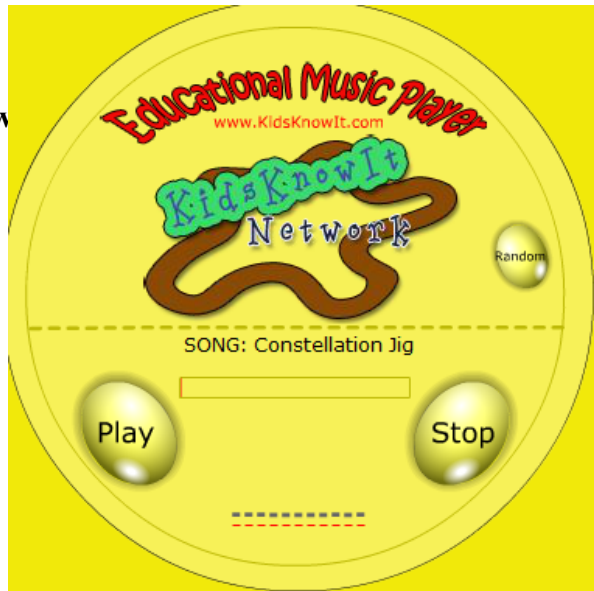
<http://www.youtube.com/watch?v=FuXADtVvILAwQ>



The Universe: The Constellations

<https://www.youtube.com/watch?v=Jf8Nh4iOkcl>

<http://www.kidsknowit.com>
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