Science ("knowledge") has been a feature of life for most people only for the past five centuries or so whilst humans have existed for something like 70,000 years.

Great scientists like Leonardo da Vinci (1452-1519) Nicolaus Copernicus (1473-1543), Galileo Galilei (1564 -1642) and Isaac Newton (1642-1727) emerged only in the Middle Ages to make their astonishing and often controversial deductions public.

Before that people had little idea about the workings of the physical world and resorted to fantastical story telling to explain phenomena like

Thunder and Lightning Aurora Borealis

Icebergs Evil in the World

Night and Day Earthquakes Marsh Gas

The morning dew Singing Rocks

The warm and colder seasons Storm vibrations

This presentation details some of these amazing stories from across the world which "explained things" from as far back as 3000 years ago until the Middle Ages—from Creation to the little white marks on your fingernails!!





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Two stamps from Canada's 1996 Christmas issue showing Durer's drawing of praying hands.

Part of a mini-sheet from Poland issued in 2004 entitled History of the Earth showing Earth as:

Protoplanet

Being bombarded by asteroids

Roamed over by dinosaurs

Orbited by the first space station (NASA's Skylab)

Mythology "Explains"

Creation



Received thinking today, though not unchallenged, is that everything began around 13.8 billion years ago with "The Big Bang" - an idea associated with Belgian astronomer and professor of physics Georges Lemaître, honoured by his own country with an issue in 1994.

However the mythology of many societies and cultures has been used to explain how everything began.

Here are a few examples.

Classical Greek: Gaia

Gaia was the great mother of all: the primal Greek Mother Goddess; creator and giver of birth to the Earth and all the Universe; the heavenly gods, the Titans, and the Giants were born to her. The gods reigning over their classical pantheon were born from her union with Uranus (the sky), while the sea-gods were born from her union with Pontus (the sea).





Gaia is depicted here in two works of art: Rubens' 1618 painting *The Union of Earth and Water* a detail of which appears on Paraguay 1978 (uncatalogued) and Ernst Barlach's sculpture finished in 1920—*Mother Earth II* shown on East Germany:Berlin 1981

Creation

The mythology of many societies and cultures has been used to explain how everything began.

Here are a few examples.

Peru: Wiracocha aka Kon Tiki

The great creator god within Inca mythology is Apu Qun Tiqsi Wiraqutra, whose name is known in various forms, as above.

In one version of the myth Wiracocha rose from Lake Titicaca and created mankind by breathing into stones, (Peru 2006 left and middle stamps in triptych) but was unhappy with his first creation—of brainless giants—so he destroyed them with a flood and made a better one before wandering the Earth (right stamp).



The face of the creator god Kon Tiki is shown adorning the sail of Thor Heyerdahl's eponymous balsa wood raft in his famous 4300 mile voyage from South America to The Tuamotu Islands in French Polynesia in 1947.

(France 1972)



Mythology "Explains"

Creation

The Mythology of many societies and cultures has been used to explain how everything began.

Here are a few examples.

The Old Testament: Genesis

The Creation story is told in the first book in the Bible......

And God said, Let there be light: and there was light (Genesis 1.3)

And God called the firmament Heaven (1.8)

And God called the dry land Earth (1.10)

Israel 1965 illustrates from right to left Light, Heaven, Earth, Stars, Birds and Beasts, Man



USA 1969



Vatican 1974 shows a child's painting of "Let there be Light" with a Bible shown on India (2010).





Creation

The Mythology of many societies and cultures has been used to explain how everything began.

Here are a few examples.

Norse: as detailed in The Vøluspá

The Genesis myth is explained in a number of Norse sources, one of the most beautiful of which is *The Vøluspá*, a long poem to which The Faroe Islands devoted 10 stamps in 2003.

In the beginning nothing at all existed in a great empty void called Ginnungagap. In due course two creatures came into being, an enormous giant called Ymir and a cow (Audhumla) from whom the giant took his sustenance, producing a man and a woman from his armpit: top row of minisheet second left.

Ymir's body eventually is plundered by his offspring The Gods to produce the world we know, with his flesh becoming the soil, his bones our mountains and his teeth rocks and boulders. The top of his skull became the heavens above us and parts of his brain our clouds.

Shortly after The Gods found two pieces of driftwood, gave them life as Ask (ash) and Embla (elm), the first humans: top row of minisheet centre stamp.



Mythology "Explains"

Creation

The Mythology of many societies and cultures has been used to explain how everything began.

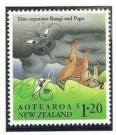
Here are a few examples.

Maori: Ranginui and Papatuanuku

In Maori mythology the primal couple Rangi (aka Raki) and Papa appear respectively as the sky father and earth mother locked together in a tight embrace, as shown on New Zealand 1990.



They have many male children all forced to live in cramped darkness between them, who desire to live in the light. One (the violent Tűmatauenga, god of war) wishes to kill them but his brother Táne-mahuta, god of forests and birds, disagrees and eventually manages to force them apart, pushing with his strong legs, so creating space and light between earth and sky, as illustrated on New Zealand 1994.



The Sun

Norse: Gullveig aka Freya

Norse legends often mimic Classical Greek ones, as here in the case of Freya, the most beautiful and propitious of the goddesses.

In a further story within the Norse *Vøluspá epic*, a woman called Gullveig is burnt at the stake but rises every time, being impossible to kill. Gullveig (also known as Freja) represents our Sun.

In the bottom se-tenant pair of this 1981 Swedish carnet we see Freya on her chariot pulled by cats.



Above a German advertising vignette for "Freya" tea and a 1994 Norwegian issue in a series celebrating native butterflies depicting the sun coloured *Clossiana Freja* (Freya's fritillary). Below Freya is referenced in a pictorial handstamp on a cover celebrating the Hamburg paddle steamer (now a museum berthed within Hamburg harbour) named after the Sun god.





Mythology "Explains".....

The Sun



The Sun shown above on USA 2000 and San Marino 1994 formed about 4.6 billion years ago from the gravitational collapse of a region within a large molecular cloud. Its diameter is over 100 times that of the Earth and it is made up mainly of hydrogen and helium.

Classical Greek: Phoebus Apollo aka Helios

Apollo, son of Zeus, was (among other roles) God of Light and sometimes identified with Helios the Sun God.









Greece 1947 depicts the radiant head of "Phoebus" Apollo whilst Greece 1959, France 1946, Greece 1991 and Grenada 1993 show him in a role often associated with Helios daily steering the horses driving the sun chariot across the skies bringing daylight.

However, Helios was the son of Hyperion and Theia: daily he arose in the East and drove his chariot powered by four steeds Pyrois, Eos, Atheon and Phlegeon to descend at night in the West.





In what today seems a grim parody, a German Reich stamp of 1940 celebrates the annual "Brown Ribbon" horse races run in Munich from 1934 to 1944, with a clear reference to Helios in the halo around the charioteer's head.

The Sun

India: Surya aka Ravi

Surya—"the supreme light" is the Indian Sun god who is often depicted riding a chariot harnessed by seven spirited horses across the sky in the course of a day. Also known as *Adithya*, *Suraya*, *Bhanu*, *Ravi* or *Phra Athit*, he is the chief solar deity in Hinduism Surya is the chief of the Navagraha, the nine Indian Classical planets and important elements of Hindu astrology.

The haloed God is depicted below on a 1984 souvenir sheet for the joint Soviet-Indian spaceflight which saw India's first cosmonaut orbit the Earth and in a 2001 se-tenant pair of stamps referencing the Sun Temple at Konark, built in the Thirteenth Century as monumental representation of the massive horse-drawn chariot controlled by him.







A sun mask stamp from India issued in 1974

The image of Surya appears on a number of other Indian stamps, the earliest catalogued from Jaipur in 1904, then 1911—and in the 1931 Investiture of the Maharaja Sawai Man Singh II (also shown). In the earliest designs despite their age the halo around Surya and the horses can be made out.











Mythology "Explains".....

The Shading of the Moon

China: Chang é



Romania 1972 imperf souvenir sheet showing the landing sites of the six Apollo missions reminds us of the dark patterns we see on the Moon's surface, as in the photo below.



Westerners looking at the full Moon today often identify a full-on face and joke about the "Man in the Moon" but in ancient Chinese mythology another pattern was seen, namely a rabbit standing by a pot of elixir. The rabbit is the companion of broken hearted Chinese heroine Chang é.

Chang é (pictured in the indicia of the 1999 postal stationery below) decided to die when her husband Houyi quite wrongly accused her of adultery. Thinking it was poison, she drank from a pot of elixir which ironically made her immortal, then flew high into the sky arriving at the Moon Palace where she lives with her jade rabbit pet. You can make out both rabbit and the pot of elixir in this illustration, rotated and coloured artificially.











Thunder (and Lightning)

Norse: Thor, son of Odin

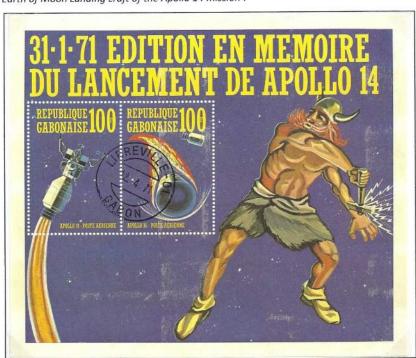
Thor, the son of Odin, is portrayed as a very powerful being with red beard and eyes that flash lightning as in this Bostwana stamp of 1973, for the 100th Anniversary of the World Meterological Organisation.





During what we know now is an event caused by violent electrical activity in clouds, the old Norse peoples believed that in a thunderstorm Thor rode through the clouds on his chariot pulled by two goats whose names translate as Gap-tooth and Tooth-grinder and lightning flashed whenever he threw his hammer Mjollnir, which was one of his essential attributes.

Thor is also, rather curiously, involved in the design of a 1971 souvenir sheet for the fiery launch and return to Earth of Moon Landing craft of the Apollo 14 mission!



Mythology "Explains"

The Seasons

Greece: Demeter and Proserpina













We have seasons, some effects of which are shown on the above GB stamps from 1992 (Wintertime), 1979 (Spring Flowers—daffodil) and 1994 (Summertime—events) and 1987 (Autumn Crocus), because of the tilt of the Earth's axis in our gradual orbit of the sun (Albania 1964, Ciskei 1991).

But the classical Greek explanation was much more romantic relaying the story of the goddess of the harvest Demeter *shown below on Greece 1963* and daughter Proserpina, condemned by Zeus to spend a third of the year, captive with bleak Hades in the Underworld. When Demeter had her daughter close by the crops flourished but when she absented herself they withered in an annual cycle. (The Romans named the heroines as Ceres* and Persephone).











Ceres* appears on a whole "series" of stamps and for example is subject of French definitives—the first postage stamp design from that country—from 1849 onwards (example shown above centre) and as celebrated in the above se-tenant pair from France in 1999. The first stamps bear an effigy drawn by Jacques-Jean Barre with printing in the hands of Anatole Hulot. Also shown are Ceres stamps from El Salvador in 1899 and Angola in 1914.

Aurora Borealis



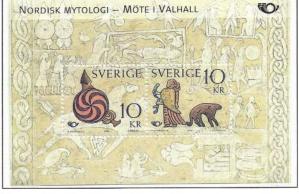




Norse: The Valkyrie Inuit: The Dead playing ball

Two separate myths are offered here to explain the origins of these amazing phenomena seen in Northern latitudes and today known to be associated with sun-spot activity (Hungary 1959) examples of which are seen on Canada 2002 and USA 2007 for International Polar Year.







The 2004 right hand stamp of the Swedish mini-sheet within the three year Top of the World Mythology omnibus series depicts The Valkyrie—"The Choosers of the Slain", (also seen on a 1933 issue from the German Reich and on Uruguay 2001, relating to Wagnerian opera). These are "beautiful" (or horrible, depending on your source!) young women riding Pegasus-like steeds armed with sparkling helmets and spears. As the Valkyrie ride forth seeking warriors' bodies to take to Valhalla their armour causes the

strange flickering light which we know as

The Northern Lights.

However, in quite a different explanation of the Aurora within Inuit mythology as seen in the 2004 issue from Greenland, The Northern Lights are figures of The Dead merely playing ball in the Heavens using a walrus head as their target.



Mythology "Explains".....

Aurora Australis



Aborigine: Spirit Bushfires









In the traditions of Aboriginal Australians, images of whose culture appear on many Australian issues the Aurora Australia (shown above on USA 2007) is commonly associated with fire.

For example, the Gunditjmara people of western Victoria called auroras "Puae buae", meaning "ashes", while the Gunai people of eastern Victoria perceived auroras as bushfires in the spirit world. Aboriginal people in southwest Queensland believed the auroras to be the fires of the "Oola Pikka", ghostly spirits who spoke to the people through auroras.

Icebergs

Inuit: Polar Bears



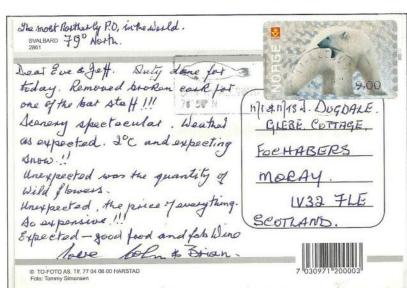






In Inuit mythology, the iceberg (shown on Canada 1991 and 1965) is the Bear of the Sea, which looks something like a polar bear (shown on USA 1999 and Canada 1998) but is so gigantic it is able to walk with all of its torso above the water and its feet on the sea bed. Its destructive power is well known for when this enormous bear licks a glacier the water is stirred up and it can ingest boats and their crews just by breathing in, as shown in the Greenland 1997 issue.





Postcard bearing
a Norwegan
issue showing a
polar bear— sent
from the most
northerly Post
Office in the
World—

Ny-Ålesund at 79°N shown in pictorial cancel tying stamp on 17.7.08

Mythology "Explains"

Strange Forest Noises....Singing Rocks

Norse: Sirens

To old Norse folk these were clearly the work of Sirens and other mystical forest folk which are depicted in stamps from Sweden below.





In the left hand stamp of the Swedish minisheet from 2006 (and on Sweden 1981) we meet **Skogsrået** (The Siren of the Woods) who lures men to her (as does her sister Sjörået, The Siren of the Lake) through her beguiling beauty and by creating erotic hallucinations in men's minds.











Sirens are often thought of as river or sea creatures and appear in many European cultures as we see in the above stamps from Poland in 1955 and 1997 which depict the tale of **Wars and Sawa**, the "mermaid-siren". However, according to a different German legend there was once a beautiful young maiden named **Lorelei** who threw herself into the Rhine because her lover had betrayed her. Turned into a siren or "a neck"—a watersprite (shown in the right hand stamp of the Sweden 2006 minisheet— ever since then she sings from a rock near St Goar.

This legend is based on an echoing rock near Saint Goarshausen in Germany, shown on Germany 2006. "Lorelei" in fact comes from two German words meaning "murmuring rock", the sound in reality being created by the combination of a waterfall and strong currents.

And of course sirens featured in the Classical legend of **Odysseus** aka Ulysses, referenced on Greece 1983 and 2009 where he endures their tempting by having his body lashed to the mast of his ship.