

Astronomy: from the earth to the end of the universe

[Environment](#), [Earth](#)



What is the universe? For something so mind numbingly large, it is quite simply to define - the universe is simply everything that exists. However let us ponder that question. Imagine a blind goldfish born and raised in a tiny fishbowl.

For that goldfish, the universe is the gallon of water, the glass boundary, and the sand and ornaments sitting at the bottom. While it is apparent to us the universe is much larger than that, for the fish that is the entire extent of the universe - a gallon of water, a glass bowl, some sand and the rain of fishfood coming from above.

In some ways, mankind is that blind fish, oblivious to the extent of the universe since his universe is defined only by what he can perceive and observe. Astronomy can be seen as a tool by which mankind slowly grew his universe, from his planet, to his solar system, to his galaxy to 156 billion light years wide thing that we call our universe today.

One could argue that astronomy is the first science to emerge, beating out physics, biology, chemistry and other fields of study in occupying mankind's academic curiosity. We can say this because astronomical phenomena are probably one of the first observations made by our ancestors. It does not take a knowledge or curiosity of science to notice the presence of night and day.

It does not take a scholar to notice that the sun rises in the same direction and sets in the opposite direction day after day. Primitive man looked at the moon and would notice its changing shape and the fact that on some days it

is present and on some days it is not. One does not need a telescope to notice those numerous twinkling points of light in the sky called stars.

Even without possessing the astronomical tools we have today, ancient civilizations have created numerous ways to observe and catalogue the behavior of celestial bodies. The concept of a calendar was based around the changing patterns of stars in the heavens.

Knowledge of such patterns became important for ancient farmers as the presence of specific patterns in the sky could tell them that it is time to plant, another set of patterns would tell them that it is a good time to harvest, and another set of patterns could tell the imminence of the annual flooding of the river. For early man, the connection between movements of stars and the events unfolding in his midst were clear. Knowledge of celestial movements aid him feed himself and hisfamily.

With such heavenly foretelling, the development of a feeling of connection between the Gods and the stars is hardly surprising. Huge monuments were erected to serve as observatories for these events.

Monuments to the gods were created to align with celestial behavior. Stonehenge in Britain served as a stencil for solar motion. In Chichen Itza, pyramids and towers dedicated to the gods also served as astronomical observatories.