Dating Techniques

Definition – "Any process where one measurable property changes into a second measurable property at a known interval."

Examples: watches (mechanical-gear-driven, hourglass, sundial), trees growing, candles burning, water boiling, radioactive change from one element or isotope to another

What happens to an hourglass is someone turned it over and back without you noticing?

How do we use dating techniques?

First we must observe the present state. Then we measure the rate of change and then make *assumptions* concerning the past. We then make a calculation using these *assumptions* based on our actual observation.

What about these *assumptions*? We assume the rate of change is constant. We assume that measurement is free from outside influences. We assume it started from the beginning (state of nothingness). Each of these *assumptions* can be highly suspect!

Radiometric (RadioCarbon) Dating

The half-life is the time required for ½ of the radioactive material to decay to another material. This could be one isotope to another of the same element or it could be one element to another (e.g. Uranium (half-life of 4.5 billion years) to Lead).

Why half-life? It doesn't work that if the half-life is one hour that in two hours it would all be gone. Rather after one hour you would have ½ the original amount, two hours you would have ¼ the amount, three hours you would have 1/8, four hours you'd have 1/16 and so on.

The half-life of C14 is 5730 years so we can simply determine the remaining amount of C14 in a sample and then determine its age. Not so fast – the model *assumes* that the level of C14 in the atmosphere is constant. We know from recent measurements that it is actually increasing! This goes against the *assumption* that it is decreasing over time.

Living things absorb C14 which then breaks down to N12. It is *assumed* that the atmospheric ratio of C12/C14 is constant. We can take a previously living sample and determine the C12/C14 ratio which gives us a clock that started once the sample died. Due to the half-life of C14 it is technically impossible to get a date in the millions of years range. If a sample contains C14 we know that it is not millions of years old (only valid to ~68,000 years).

Scientists have gone back to old samples of known age (organic matter in dated tombs) to check *assumptions* of the atmospheric C14 at that point, but we do not have the ability to check these levels any further back in time than that.

According to actual observations in C14 atmospheric readings, if we went back to the "beginning", *assuming* no C14 existed, we could only go back 30,000 years! This is due

to the C14 created being offset by the amount of C14 decaying and also means that the earth's atmosphere could not be any older than 30,000 years using Carbon 14…

Other Dating Methods (and age of the earth)

Formation of river deltas	5,000 years (to flood)
Magnetic field declining	10,000
Helium buildup in the atmosphere	175,000
Dinosaur red blood cells	Few thousand years
Moon's orbit around the earth	10,000
Depth of dust on the moon	200,000
Niagra Falls precipice erosion	5,000
Human population	4,000
Radioactive dating	4,500,000,000

Note - *assumptions* are more likely to be correct if closer to the time of observation. *Assumptions* are much more likely to be constant over a recent span of 4,000 years than they are of 4.5 billion years.

Human Population Growth

If the human race is as old as evolutionists claim, then we must have been reproducing since that time. They claim we've been around for over a million years, while study of the Bible leads us to a figure of around 6,000 years. Taking some conservative numbers we find that starting 4300 years ago (after the flood), with an average lifespan of 43 years and 2.5 children per family we arrive at a current population of approximately 6 billion. The current population of the earth is estimated at 6.5 billion.

Using the same data for the evolutionist's claim yields a current population of 10^{2091}. This is an absurdly large number. Even if we seriously cut the number, we would still be living on top of mountains of ancestral bones – none of which have been found.

For more detail see *The Biblical Basis for Modern Science*, Henry M. Morris.

Arguments

Many dating techniques used for the age of the earth rely on meteorites. How can we *assume* that the earth and the meteorite are the same age since we know that gravity affects time? It is also noted that many of the isotopes on the periodic table no longer exist on earth. If we *assume* that we had them in their "full" form then the earth would have to be very old to have run out of them.

Many other techniques are brought forth to "prove" that dating techniques not only work, but establish an old earth. If you question the *assumptions* you will almost always find a house of cards. We need only go back to the reason that an old universe was required – to support evolution. This is science in reverse, trying to prove a model instead of letting the results lead to the truth.

Further detail - http://www.christiananswers.net/q-aig/aig-c007.html