

THE AGE OF THE EARTH

Why the Earth is not millions of years old

How old is Planet Earth? This is an important question. Even though long ages of time are not a proof of evolution, yet without the long ages evolution could not occur (if it were possible for it to occur).

Actually, there are many evidences that our world is quite young. Here are some of them:

First we shall consider EVIDENCE FROM THE STARS that the universe itself is quite young:

1 - STAR CLUSTERS—There are many star clusters in the universe. Each one is a circular ball composed of billions upon billions of stars, each with its own orbit. Science tells us that some of these clusters—with their stars—are moving so rapidly, together, in a certain direction that it should be impossible for them to remain together if the universe were very old.

2 - LARGE STARS—Some stars are so enormous in diameter that it is thought that they could not have existed for even a few million years, otherwise their initial larger mass would have been impossibly large. These massive stars radiate energy very rapidly—some as much as 100,000 to 1 million times more rapidly than our own sun. On the hydrogen basis of stellar energy, they could not have contained enough hydrogen to radiate at such fast rates for long ages, because their initial mass would have had to be far too gigantic.

3 - HIGH-ENERGY STARS—Some stars are radiating energy so intensely that they could not possibly have survived for a long period of time. This includes the very bright *O and B class stars*, the *Wolf-Rayfert stars*, and the *P Cygni stars*. Radiation levels of 100,000 to 1 million times as much as our own sun are emitted by these stars! Yet, by the standard solar energy theory, they do not contain enough hydrogen to perpetuate atomic fusion longer than approximately 50,000 to 300,000 years.

4 - BINARY STARS—Many of the stars in the sky are binaries: two stars circling one another. But many of these binary systems point us to a young age for the universe, because they consist of theoretically "young" and "old" stars circling one another.

5 - HYDROGEN IN UNIVERSE—According to one theory of solar energy, hydrogen is constantly being converted into helium as stars shine. But hydrogen cannot be made by converting other elements into it. *Fred Hoyle, a leading astronomer, maintains that, if the universe were as old as Big Bang theorists contend, there should be little hydrogen in it. It would all have been transformed into helium by now. Yet stellar spectra

reveal an abundance of hydrogen in the stars, therefore the universe must be youthful.

Next we shall consider EVIDENCE FROM OUR SOLAR SYSTEM that our solar system is quite young:

6 - SOLAR COLLAPSE—Research studies indicate that our sun is gradually shrinking at a steady rate of seconds of arc per century. At its rate of shrinkage, as little as 50,000 years ago the sun would have been so large that our oceans would boil. But in far less a time than 50,000 years, life here would have ceased to exist. Recent studies have disclosed that neither the size of the sun, nor our distance from it, could be much greater or smaller—in order for life to be sustained on our planet.

"By analyzing data from Greenwich Observatory in the period 1836-1953, John A. Eddy [Harvard-Smithsonian Center for Astrophysics and High Altitude Observatory in Boulder] and Aram A. Boornazian [mathematician with S. Ross and Co. in Boston] have found evidence that the sun has been contracting about 0.1% per century during that time, corresponding to a shrinkage rate of about 5 feet per hour. And digging deep into historical records, Eddy has found 400-year-old eclipse observations that are consistent with such a shrinkage."— *"Sun is Shrinking," Physics Today, September 1979.*

Extrapolating back, 100,000 years ago, the sun would have been about twice its present size, making life untenable.

7 - SOLAR NEUTRINOS—In 1968 it was discovered that the sun is emitting hardly any neutrinos. This evidence points directly to a very youthful sun. These neutrinos ought to be radiating outward from the sun in very large amounts, but this is not occurring. This fact, coupled with the discovery that the sun is shrinking in size, point to a recently created sun.

8 - COMETS—Comets, journeying around the sun, are assumed to have the same age as our world and solar system. But, as *Fred Whipple has acknowledged, astronomers have no idea where or how comets originated. Yet we know that they are continually disintegrating. This is because they are composed of bits of rocky debris held together by frozen gases and water. Each time a comet circles the sun, some of the ice is evaporated and some of the gas is boiled away by the sun's heat. Additional material is lost through gravitational forces, tail formation, meteor stream production, and radiative forces. The most spectacular part of a comet is its tail, yet this consists of material driven away from its head by solar energy. All the tail material is lost in space as the comet moves onward.

A number of comets have broken up and dissipated within the period of human observation. Some of those regularly seen in the nineteenth century have now vanished. Others have died spectacularly by plunging into the sun.

Evidently all the comets should self-destruct within a time frame that is fairly short. Careful study has indicated that the effect of this dissolution process on short-term comets would have totally dissipated them within 10,000 years.

There are numerous comets circling our sun, including many short-term ones, with no source of new comets known to exist.

9 - COMET WATER—It has only been in recent years that scientists have discovered that comets are primarily composed of water, and that many small comets are continually striking the earth. Yet each strike adds more water to our planet. Scientific evidence indicates that, if the earth was billions of years old, our oceans would be filled several times over with water.

10 - SOLAR WIND—As the sun's radiation flows outward, it applies an outward force on very, very small particles orbiting the sun. All of the particles smaller than 100,000th of a centimeter in diameter should have long ago been "blown out" of our solar system, if the solar system were billions of years old. Yet research studies by satellites in space have shown that those small particles are abundant and still orbiting the sun. Therefore our solar system is quite young.

11 - SOLAR DRAG—This is a principle known as the "*Poynting-Robertson Effect*." Our sun exerts a solar drag on the small rocks and larger particles (*micrometeoroids*) in our solar system. This causes these particles to spiral down into the sun and be destroyed. The sun, acting like a giant vacuum cleaner, sweeps up about 100,000 tons [82,301 mt] of micrometeoroids each day. The actual process by which this occurs has been analyzed. Each particle absorbs energy from the sun and then re-radiates it in all directions. This causes a slowing down of the particle in its orbit and causes it to fall into the sun. At its present rate, our sun would have cleaned up most of the particles in less than 10,000 years, and all of it within 50,000 years.

Yet there is an abundance of these small pieces of rock, and there is no known source of replenishment. This is because each solar system would lock in its own micrometeoroids so they could not escape to another one, and the gravity on each planet and moon would forbid any of its gravel to fly out into space.

Next we shall consider *EVIDENCE FROM THE OTHER PLANETS IN OUR SOLAR SYSTEM* that the solar system is quite young:

12 - COMPOSITION OF SATURN'S RINGS—*G.P. Kuiper reported, in 1967, that the trillions of particles in the rings circling the planet Saturn are primarily composed of solid ammonia. Since solidified ammonia has a much higher vapor pressure than even ice, reputable scientists recognize that it could not survive long without vaporizing off into space. This is a strong indicator of a young age for Saturn's rings.

13 - BOMBARDMENT OF SATURN'S RINGS—Meteoroids bombarding Saturn's rings would have destroyed them in far less than 20,000 years.

14 - MORE RING PROBLEMS—NASA Voyager treks have disclosed that Jupiter and Uranus also have rings encircling them! (In addition, a 1989 Neptune flyby revealed that it also has rings—four of them.) These discoveries have only augmented the problem of the evolutionists, for this would indicate a young age for those three planets also.

15 - JUPITER'S MOONS—The Voyager I space probe was launched on September 5, 1977. Aimed at the planet Jupiter, it made its closest approach to that planet on March 5, 1979. Thousands of pictures and thousands of measurements were taken of Jupiter and its moons.

Io is the innermost of the four original "Galilean moons," and was found to have over sixty active volcanoes! These volcanoes spew plumes of ejecta from 60 to 160 miles [97 to 257 km] above *Io*'s surface. This is astounding.

Nothing on our planet can match this continuous stream of material being shot out by *Io*'s volcanoes at a velocity of 2000 miles per hour [3218 km per hour]! The usual evolutionary model portrays all the planets and moons as being molten 5 billion years ago. During the next billion years they are said to have had active volcanoes. Then, 4 billion years ago, the volcanism stopped as they cooled. *Io* is quite small, yet it has the most active volcanoes we know of. Obviously, it is quite young and its internal heat has not had time to cool.

16 - MOONS TOO DIFFERENT—If all four moons of Jupiter's "Galilean moons" evolved, they should be essentially alike in physical characteristics. The theorized millions of years they have existed should cause them to have the same amount of volcanoes and impact craters, but this is not so. In contrast, a recent creation would explain *Io*'s volcanoes and the variety of other surface features.

Next we shall consider EVIDENCE FROM OUR OWN MOON that it is quite young:

17 - MOON DUST—Although most people do not know it, one of the reasons so much money was spent to send a rocket to the moon was to see how thick the dust was on its surface!

Evolutionists had long held to the fact (as we do) that the earth and moon are about the same age. It is believed, by many, that the earth and its moon are billions of years old. If that were true, the moon would by now have built up a 20-60 mile [32 to 97 km] layer of dust on it!

In ***Isaac Asimov's first published essay (1958), he wrote:**

" . . . I get a picture, therefore, of the first spaceship [to the moon], picking out a nice level place for landing purposes, coming slowly downward tail-first and sinking majestically out of sight."—*Isaac Asimov, *Asimov on Science: A Thirty-Year Retrospective* (1989), xvi-xvii.

In the 1950s, ***R.A. Lyttleton, a highly respected astronomer, said this:**

"The lunar surface is exposed to direct sunlight, and strong ultraviolet light and X-rays [from the sun] can destroy the surface layers of exposed rock and reduce them to dust at the rate of a few ten-thousandths of an inch per year. But even this minute amount could, during the age of the moon, be sufficient to form a layer over it several miles deep."—*R.A. Lyttleton, *quoted in R. Wysong, Creation-Evolution Controversy*, p. 175.

In 5 to 10 billion years, 3 or 4/10,000ths of an inch per year would produce 20-60 miles [32-97 km] of dust. In view of this, our men at NASA were afraid to send men to the moon. Landing there, they would be buried in dust and quickly suffocate! So NASA first sent an unmanned lander to its surface, which made the surprising discovery that there was hardly any dust on the moon! In spite of that discovery, Neil Armstrong was decidedly worried about this dust problem as his March 1970 flight in Apollo 11 neared. He feared his lunar lander would sink deeply into it and he and Edwin Aldrin would perish. But because the moon is young, they had no problem. There is not over 2 or 3 inches [5.08 or 7.62 cm] of dust on its surface! That is the amount one would expect if the moon were about 6000-8000 years old.

***Dr. Lyttleton's facts were correct; solar radiation does indeed turn the moon rocks into dust. With only a few inches of dust, the moon cannot be older than a few thousand years.**

It is significant that studies on the moon have shown that only 1/60th of the one- or two-inch dust layer on the moon originated from outer space. This has been corroborated by still more recent measurements of the influx rate of dust on the moon, which also do not support an old moon.

18 - LUNAR SOIL—Analysis of lunar soil negates the possibility of long ages for the moon's existence. The dirt on the moon does not reveal the amount of soil mixing that would be expected if the moon were very old.

19 - LUNAR ISOTOPES—Many wonder what value there has been in collecting moon rocks. One of the most surprising moon rock discoveries is seldom mentioned: Short-lived Uranium 236 and Thorium .230 were found in those stones! Short-term radioactive isotopes do not last long; they quickly turn into their end product, which is lead. If the moon were even 50,000 years old, these short-life radioisotopes would long since have decayed into lead. But instead they were relatively abundant in the moon rocks! The importance of this should not be underestimated. The moon cannot be older than several thousand years.

20 - LUNAR RADIOACTIVE HEAT—Rocks brought by Apollo teams from the moon have been dated by the various radiometric methods. A variety of very conflicting dates have resulted from these tests. But the factor of relatively high radioactivity of those rocks indicates a young age for the moon.

21 - LUNAR GASES—Several inert gases have been found on the surface of the moon. Scientists believe that these gases came from the sun, in the form of "solar wind." Mathematical calculation reveals that, at today's intensity of solar wind, the amount of inert gases found on the moon would be built up in 1000 to 10,000 years, —and no longer. These calculations are based on Argon 36 and Krypton 84 concentrations. Even 20,000 years ago would be far too lengthy a time. Therefore the moon could not be older than about 6000-10,000 years.

22 - LUNAR PHENOMENA—A growing collection of data of transient lunar activity (moon quakes, lava flows, gas emissions, etc.) reveals that the moon is not a cold, dead body. It is still adjusting to inner stresses and is not yet in thermal equilibrium. Yet, all things considered, if the moon were very old it should not show such thermal activity.

23 - LUNAR RECESSION—Scientists have discovered two interesting facts: (1) the moon is already far too close to the earth, and (2) it is gradually moving farther away from us. This is called *recession of the moon*. Due to tidal friction, the moon is slowly spiraling outward away from planet earth! Based on the rate at which the moon is receding from us, the earth and the moon cannot be very old. This is an important point and can in no way be controverted. The present rate of recession clearly indicates a young age for the earth-moon system. If the moon were older—even 20 to 30,000 years old,—it would at that earlier time have been so close that it would have fallen into the earth!

"The moon is slowly receding from Earth at about 4 cm [1½ in] per year, and the rate would have been greater in the past. The moon could never have been closer than 18,400 km [11,500 miles], known as the *Roche Limit*, because Earth's tidal forces would have shattered it."—Jonathan Sarfati, *Creation Ex Nihilo*, September 1979.

Next we shall consider EVIDENCE FROM THE ATMOSPHERE that the earth is quite young:

24 - ATMOSPHERIC HELIUM—The radioactive decay of either uranium or thorium produces helium. According to evolutionary theory, these decay chains have been going on for billions of years, and should therefore have produced a much larger quantity of helium than is found in our world. The amount of helium on our planet is far too small, if our world has existed for long ages.

"There ought to be about a thousand times as much helium in the atmosphere as there is."—*"What Happened to the Earth's Helium?" *New Scientist*, 24, December 3, 1964.

To fit the evolutionary pattern, our atmosphere would now have to contain much more than our present 1.4 parts per million of helium. Some evolutionists have suggested that the helium is escaping out into space, but no evidence has ever been found to substantiate this. Research has shown that, although hydrogen can escape from the earth, helium is not able to reach "escape velocity." In order to do so, the temperature of the planet would have to be too high to support the life that evolutionists say has been here for over a billion years.

To make matters worse, not only are we not losing helium to outer space—we are getting more of it from there! *Cook has shown that helium, spewed out by the sun's corona, is probably entering our atmosphere (*Melvin A. Cook, "Where is the Earth's Radiogenic Helium?" Nature 179, January 26, 1957*).

Atmospheric helium is produced from three sources: (1) radioactive decay of uranium and thorium. (2) Cosmic helium flowing into our atmosphere from space, but especially the sun's corona. (3) Nuclear reactions in the earth's crust, caused by cosmic ray bombardment.

Kofahl and Segraves conclude that, using all three helium sources in the calculation, earth's atmospheric age would be reduced to 10,000 years. In addition to this, a worldwide catastrophic event in the past such as the Flood could, for a short time, have unleashed much larger amounts of helium into the atmosphere. Such an event could significantly reduce the total atmospheric age. Helium content is a good measure, since there is no known way it can escape from the atmosphere into outer space.

Also see *Larry Vardiman, The Age of the Earth's Atmosphere: A Study of the Helium Flux through the Atmosphere (1990)*, in which he argues that, on the basis of atmospheric helium content, the earth cannot be over 10,000 years old.

25 - CARBON-14 DISINTEGRATION—The present worldwide buildup of radiocarbon in the atmosphere would have produced all the world's radiocarbon in several thousand years. Yet, ironically, it is Carbon 14 that is used by evolutionary scientists in an attempt to prove that life has existed on our planet for millions of years!

Robert Whitelaw, a nuclear and engineering expert at Virginia Polytechnic Institute, found that the production rate is not equal to the disintegration rate. In fact, his calculations reveal a recent turning on of the C-14 clock,—otherwise the two factors would be balanced. Whitelaw's research indicates that the clock was turned on approximately 8000 years ago. (See chapter 6, *Inaccurate Dating Methods*, for more on radiocarbon dating.)

Next we shall consider EVIDENCE FROM METEORITES that the earth is quite young:

26 - METEOR DUST—Meteors are continually hurtling into the atmosphere and landing on our planet. They are then known as *meteorites*. But small amounts of *meteor dust* (called *micrometeors* and too small to see) also enter our atmosphere and gradually settle to earth. The composition of these materials is iron, nickel, and silicate compounds.

On the average, about 20 million meteors collide with the earth's atmosphere every 24 hours. It is now known that, because of meteorites and meteorite dust, the earth increases in weight by about 25 tons [22.7 mt] each day.

We have here another evidence of a young earth; for the amount of meteorites and meteorite dust earlier accumulated in rock strata, in relation to the amounts reaching the earth at present, would indicate an age in thousands of years, not millions.

27 - METEOR CRATERS—Meteor craters are fairly easy to locate, especially since we now have such excellent aerial and satellite mapping systems. For example, the meteor crater near Winslow, Arizona, is $\frac{3}{4}$ mile [1.2 km] in diameter and 600 feet [1,829 dm] deep. Efforts have been made to locate meteor craters in the rock strata, but without success. They always lie close to or on the surface. This and erosional evidence indicate that all the meteor craters which have struck the earth are all only a few thousand years old. No larger meteors struck the earth prior to that time, for no meteor craters are found anywhere in the lower rocks.

28 - METEOR ROCKS—Meteors of various types are continually plunging into earth's atmosphere, and some reach the surface and are then called *meteorites*. Supposedly this has happened for millions of years—yet all the meteorites discovered are always right next to the earth's surface! There are no exceptions! No meteorites are ever found in the deeper ("older") sedimentary strata. If the earth were very ancient, many should be found farther down. This is an evidence of a young earth. It is also an indication that the sedimentary strata was rather quickly laid down not too long in the past.

"No meteorites have ever been found in the geologic column."—*Fred Whipple, "Comets," in *The New Astronomy*, p. 207.

*Asimov's theory is that "crustal mixing" has removed all trace of the meteorites. But the nickel from those meteorites should still be there littering the earth's surface and to be found beneath it. But this is not the case.

"For many years, I have searched for meteorites or meteoric material in sedimentary rocks [the geological strata] . . . I have interviewed the late Dr. G.P. Merrill, of the U.S. National Museum, and Dr. G.T. Prior, of the British Natural History Museum, both well-

known students of meteorites, and neither man knew of a single occurrence of a meteorite in sedimentary rocks."—*W.A. Tarr, "Meteorites in Sedimentary Rocks?" *Science* 75, January 1932.

29 - TEKTITES—Tektites are a special type of glassy meteorite. Large areas containing them are called "*strewn fields*." Although some scientists claim that tektites are of earthly origin, there is definite evidence that they are actually meteorites.

Every so often, a shower of tektites falls to the earth. The first were found in 1787 in what is now western Czechoslovakia. Those in Australia were found in 1864. They were given the name *tektites*, from a Greek word for "molten," because they appear to have melted in their passage through the atmosphere. Tektites have also been found in Texas and several other places. Each shower lies on the surface or in the topmost layers of soil; they are never found in the sedimentary fossil-bearing strata. If the earth were 5 billion years old, as suggested by evolutionists, we should expect to find tektite showers in all the strata. If the earth is only a few thousand years old, and a Flood produced all the strata, we would expect to find the tektites only in the topmost layers of the ground and not in the deeper strata. And that is where they are.

The tektites are found on top of, what evolutionary theory calls, "recent" soil, not beneath it. The evidence is clear that the tektites did not work their way up from beneath or wash down from older sediments at a higher elevation.

Next we shall consider EVIDENCE FROM THE GLOBE that the earth is quite young:

30 - EARTH ROTATION—The spin of the earth—which is now about 1000 miles [1609 km] an hour—is gradually slowing down. Gravitational drag forces of the sun, moon, and other factors cause this. If the earth were really billions of years old, as claimed, it would already have stopped turning on its axis! This is yet another evidence that our world is not very old.

Lord Kelvin (the 19th-century physicist who introduced the Kelvin temperature scale) used this slowing rotation as a reason why the earth could not be very old. The decline in rotation rate is now known to be greater than previously thought (*Thomas G. Barnes, "Physics: A Challenge to 'Geologic Times,' " Impact* 16, July 1974).

Using a different calculation, we can extrapolate backward from our present spin rate and 5 billion years ago our planet would have had to be spinning so fast it would have changed to the shape of a flat pancake. We, today, would still have the effects of that: Our equator would now reach 40 miles [64 km] up into the sky, and our tropical areas—and all our oceans—would be at the poles. So, by either type of calculation, our world cannot be more than a few thousand years old.

31 - MAGNETIC FIELD DECAY—As you probably know, the earth has a *magnetic field*. Without it, we could not use compasses to identify the direction of magnetic north (which is close to the North Pole). Dr. Thomas G. Barnes, a physics teacher at the University of Texas, has authored a widely used college textbook on electricity and magnetism. Working with data collected over the past 135 years, he has pointed out that earth's magnetic field is gradually decaying. Indeed, he has shown that this magnetic field is decreasing exponentially, according to a decay law similar to the decay of radioactive substances.

In 1835 the German physicist, K.F. Gauss, made the first measurement of the earth's magnetic dipole moment, that is, the strength of earth's internal magnet. Additional evaluations have been carried out every decade or so since then. Since 1835, global magnetism has decreased 14 percent!

On the basis of facts obtained from 1835 to 1965, this magnetic field appears to have a half-life of 1400 years. On this basis, even 7000 years ago, the earth would have had a magnetic field 32 times stronger than it now has. Just 20,000 years ago, enough Joule heat would have been generated to liquefy the earth. One million years ago the earth would have had greater magnetism than all objects in the universe, and it would have vaporized! It would appear that the earth could not be over 6000 or 7000 years old. (On the accompanying graph, beyond the point where the curve becomes vertical, our planet would have had the magnetosphere power of a magnetic star!)

"The over-all intensity of the field is declining at a rate of 26 nanoteslas per year . . . If the rate of decline were to continue steadily, the field strength would reach zero in 1,200 years."—"*Magnetic Field Declining*," *Science News*, June 28, 1980.

"In the next two millennia, if the present rate of decay is sustained, the dipole component of the [earth's magnetic] field should reach zero."—*Scientific American*, December 1989.

This magnetic decay process is not a local process, such as one would find in uranium, but worldwide; it affects the entire earth. It has been accurately measured for over 150 years, and is not subject to environmental changes since it is generated deep in the earth's interior.

If any fundamental planetary process ought to be a reliable indicator of the earth's age, it should be our earth's magnetic field—and it indicates an upper limit of decidedly less than 10,000 years for the age of the earth.

Most of the factors described above would apply to the age of the earth, which appears to be decidedly less than 10,000 years.

Most of the following items of evidence would apply to the length of time since the Flood, which evidence indicates may have occurred about 4350 years ago.

Next we shall consider EVIDENCE FROM BENEATH THE SURFACE that the earth is quite young:

32 - ESCAPING NATURAL GAS—Oil and gas are usually located in a porous and permeable rock like sandstone or limestone, which is sealed by an impermeable rock-like shale. Fluids and gas can easily travel through the containing rock, but more slowly pass out of the impermeable cap. Evolutionary theory postulates that tens or hundreds of millions of years ago, the oil and gas were trapped in there.

But natural gas can still get through the shale cap. A recent study analyzed the rate of escape of gas through shale caps. It was found to be far too rapid for acceptance by evolutionary theory. If the world were billions of years old, all the natural gas would already have escaped.

33 - OIL PRESSURE—Frequently, when oil well drillers first penetrate into oil, a geyser ("gusher") of oil spews forth. Studies of the permeability of the surrounding rock indicate that any pressure within the oil bed should have bled off within a few thousand years, but this obviously has not happened yet. The excessive pressure within these oil beds refutes the "old earth" theory and provides strong evidence that these deep rock formations and the entrapped oil are less than 7000-10,000 years old. The great pressures now existing in oil reserves could only have been sustained for a few thousand years.

"Why do we see an explosive gusher when a drill strikes oil? Because oil, like natural gas, is maintained in the earth at enormously high pressure—about 5000 pounds per square inch at a depth of 10,000 feet. Supposedly oil and gas have been lying there for millions of years. But how could they have lasted that long without leaking or otherwise dissipating those extreme pressures."—*James Perloff, Tornado in a Junkyard (1999), p. 136.*

34 - OIL SEEPAGE—A 1972 article, by *Max Blumer, (*"Submarine Seeps: Are They a Major Source of Open Ocean Oil Pollution?" in Science, Vol. 176, p. 1257*) offers decided evidence that the earth's crust is not as old as evolutionary geologists had thought. *Blumer says that oil seepage from the seafloor cannot be a source of oceanic oil pollution. He explains that if that much had been regularly seeping out of the ocean floor, all the oil in offshore wells would be gone long ago if the earth were older than 20,000 years.

In contrast, geologists have already located 630 billion barrels [1,002 billion kl] of oil that can be recovered from offshore wells. But if our planet were older than 20,000 years, there would be no offshore oil of any kind to locate and recover through oil rigs.

35 - LACK OF ANCIENTLY DESTROYED RESERVOIRS—All of the oil in the world must have been placed there only in the recent past. We can know this because if long ages of time had elapsed for earth's history, then we

should find evidence of anciently destroyed oil reservoirs. There would be places where all the oil had leaked out and left only residues, which would show in drilling cores! But such locations are never found. Coal is found in various stages of decomposition, but oil reservoirs are never found to have seeped away.

36 - MOLTEN EARTH—Deep within the earth, the rocks are molten; but, if the earth were billions of years old, long ages ago our planet would have cooled far more than it now has.

37 - VOLCANIC ERUPTIONS—There are few active volcanoes today, yet at some time in the past there were thousands of them. In chapter 14, *Effects of the Flood*, we will learn that many of these were active during the time that the oceans were filling with water.

The greater part of the earlier volcanism apparently occurred within a narrow band of time just after the Flood. If it had lasted longer, our world today would have a far larger amount of volcanic material covering its surface. Instead we find that the Deluge primarily laid down the sedimentary deposits.

But even today's volcanoes are an indication of an early age for the earth. If even the present low rate of volcanic activity had continued for the long ages claimed by evolutionists for earth's history, there would be far more lava than there now is. Only a young age for our world can explain the conditions we see on earth's surface now.

38 - ZIRCON/LEAD RATIOS—This and the next discovery were made by R.V. Gentry, and both are discussed in detail in chapter 3, *Origin of the Earth*, and in his book, *Nature's Tiny Mystery*.

Zircon crystals were taken in core samples from five levels of a very hot, dry 15,000-foot [45,720 dm] hole in New Mexico, with temperatures always above 313° C. [595.4° F.]. That is more than 200° C. [392° F.] hotter than the sea-level temperature of boiling water.

Radiogenic lead gradually leaks out of zircon crystals, and does so more rapidly as the temperature increases. But careful examination revealed that essentially none of the radiogenic lead had diffused out of that super-heated zircon. This evidence points strongly to a young age for the earth.

39 - ZIRCON/HELIUM RATIOS—When uranium and thorium radioactively decay, they emit alpha particles—which are actually helium atoms stripped of their electrons. Analysis of the helium content of those same zircon crystals, from that same deep New Mexico hole, revealed amazingly high helium retention in those crystals. Yet helium is a gas and can diffuse out of crystals much more rapidly than many other elements, including lead. Since heat increases chemical activity, all that

helium should be gone if the earth were more than a few thousand years old.

40 - SOIL-WATER RATIO—There is clear evidence in the soil beneath our feet that the earth is quite young, for it is still in the partially water-soaked condition that it incurred at the time of the Flood. This evidence indicates that a Flood took place, and that it occurred not more than a few thousand years ago. This is shown by water table levels (which, as you know, we today are rapidly draining).

Next we shall consider EVIDENCE FROM THE EARTH'S SURFACE that the earth is quite young:

41 - TOPSOIL—The average depth of topsoil throughout the world is about eight inches. Allowing for losses due to erosion, it has been calculated that it requires 300 to 1000 years to build one inch [2.54 cm] of topsoil. On this basis, the earth could only be a few thousand years old.

42 - NIAGARA FALLS—The French explorer, Hennepin, first mapped Niagara Falls in 1678. From that time until 1842, the falls eroded the cliff beneath them at a rate of about 7 feet [213 cm] per year. More recent calculations would indicate a rate of 3.5 feet [106.68 cm] of erosion per year. Since the length of the Niagara Falls gorge is about 7 miles [11 km], the age of the falls would be 5000 to 10,000 years.

But, of course, the worldwide Flood, the existence of which is clearly established by rock strata and other geological evidence, would have been responsible for a massive amount of initial erosion of the falls.

There are a number of large waterfalls in the world which plunge into gorges; and, over the centuries past, these were dug out as the waterfall gradually eroded away the cliff beneath it. In each instance, the distance of the cut that has been made, in relation to the amount of erosion that is being made each year by the falls, indicates only a few thousand years since the falls began.

Next we shall consider EVIDENCE FROM THE OCEANS that the earth is quite young:

43 - RIVER DELTAS—Did you ever see an air-view photograph of the Mississippi River delta? You can find an outline of it on any larger United States map. That river dumps 300 million cubic yards [229 million cubic meters] of mud into the Gulf of Mexico every year, at the point where the river enters the gulf. For this reason, the State of Louisiana keeps becoming larger. Yet, for the amount of sediment dumping that occurs, the Mississippi delta is not very large. In fact, calculations reveal it has only been forming for the past 4000 years.

The Mississippi-Missouri river system is the longest in the world and is about 4221 miles [6,792 km] in length. Because, below Cape Girardeau,

flatland inundation along the Mississippi has always been a problem, over a hundred years ago, Congress commissioned *General Andrew A. Humphreys to make a survey of the whole area. It was completed in 1861. The English evolutionist, *Charles Lyell, had earlier made a superficial examination of the river and its delta and declared the river system to be 60,000 years old since, he said, the delta was 528 feet [1609 dm] deep.

But Humphreys showed that the actual depth of the delta was only 40 feet. Below that was the blue clay of the Gulf, and below that, marine fossils. His discovery revealed that the lower Mississippi valley used to be a marine estuary. Using Lyell's formula for age computation, Humphreys arrived at an age of about 4620 years, which would be approximately the time of the Genesis Flood.

Less data is available for other world river systems, but what is known agrees with findings about the age of the Mississippi delta.

Ur of the Chaldees was a seaport several thousand years ago. Today it is almost 200 miles [322 km] from the Persian Gulf. That distance was filled in as delta formation filled from the Tigris and Euphrates rivers. Archaeologists date the seaport Ur at 3500 B.C. Assuming that date, the delta formed at 35 miles [56 km] for every 1000 years.

According to evolutionary theory, everything occurs at a uniform rate and the earth is billions of years old. If that is so, 80,000 years ago the Persian Gulf would have reached to Paris! At the same rate of delta formation, 120,000 years ago the Gulf of Mexico would have extended up through the Mississippi River—to the North Pole!

44 - SEA OOZE—As fish and plants in the ocean die, they drop to the bottom and gradually form an ooze, or very soft mud, that is built up on the ocean floors. This occurs at the rate of about 1 inch [2.54 cm] every 1500 years. Measuring the depth of this ooze, it is clear that the earth is quite young.

45 - EROSION IN THE OCEAN—If erosion has been occurring for millions of years, why below sea level in the oceans do we find ragged cliffs, mountains not leveled, oceans unfilled by sediments, and continents still above sea level?

An excellent example of this is the topology of Monterey Bay, California. It is filled with steep underwater canyons—so steep that small avalanches occur on them quite frequently. (See *"Between Monterey Tides," National Geographic, February 1990, pp. 2-43; especially note map on pp. 10-11.*) If the earth were as old as the evolutionists claim, all this would long ago have been flattened out.

46 - THICKNESS OF OCEAN SEDIMENTS—About 29 billion tons [26.3 billion mt] of sediment is added to the ocean each and every year. If the earth were

billions of years old, the ocean floor would be covered by sediments from land measuring 60 to 100 miles [96.5 to 160.9 km] thick, and all the continents would be eroded away. But, instead, we find only a few thousand feet of sediment in the ocean and no indication that the continents have eroded away even once. Calculations on the thickness of ocean sediments yield only a few thousand years for our planet.

The average depth of sediments on the ocean floor is only a little over $\frac{1}{2}$ mile [.804 km]. But if the oceans were billions of years old, the rate of sediment deposit from the continents would have resulted in a minimum of 60 miles [96.6 km] of sediments, on the ocean floors, and closer to 100 miles [160.9 km].

Plate tectonics theory (chapter 20, *Paleomagnetism* [omitted from this book for lack of space; you will find it in chapter 26 on our website]) declares that gradually subducting plates bury themselves deep into the earth, carrying with them the sediments on top of them. But, according to that theory, this would only remove about 2.75×10^{10} tons [2.49 mt $\times 10^{10}$] per year, or merely 1/10th of the annual new sediments being added from the continents!

The 60 miles [96.6 km] of ocean sediments needed by the evolutionists for their theory is hopelessly missing.

47 - OCEAN CONCENTRATIONS—We have a fairly good idea of the amount of various elements and salts that are in the oceans and also how much is being added yearly by rivers, subterranean springs, rainwater, and other sources. A comparison of the two factors points to a young age for the ocean and thus for the earth.

Of the 51 primary chemical elements contained in seawater, twenty could have accumulated to their present concentrations in 1000 years or less, 9 additional elements in no more than 10,000 years, and 8 others in no more than 100,000 years. For example, the nitrates in the oceans could have accumulated within 13,000 years.

48 - GROWTH OF CORAL—Coral in the ocean grows at a definite rate. Analysis of coral growth in the oceans reveals that ours is a young world.

"Estimated old ages for the earth are frequently based on 'clocks' that today are ticking at very slow rates. For example, coral growth rates were for many years thought to be very slow, implying that some coral reefs must be hundreds of thousands of years old. More accurate measurements of these rates under favorable growth conditions now show us that no known coral formation need be older than 3,500 years (A.A. Roth, 'Coral Reef Growth,' *Origins*, Vol. 6, No. 2, 1979, pp. 88-95)."—W.T. Brown, *In the Beginning* (1989), p. 14.

Next we shall consider EVIDENCE FROM LIVING THINGS that the earth is quite young:

49 - TREE RINGS—The giant sequoias of California have no known enemies except man. And only recently did man (with his saws) have the ability to easily destroy them. Insects do not bother them, nor even forest fires. They live on, century after century. Yet the sequoias are never older than about 4000 years. These giant redwoods seem to be the original trees that existed in their timber stands. *Sequoia gigantea*, in their groves in the Sierra Nevada Mountains, never have any dead trees ("snags") among them. Unless man cuts them down, there is no evidence that they ever die!

The University of Arizona has a department that specializes in tree dating. *Edmund Schulman of its Dendrochronological Laboratory discovered a stand of still older trees in the White Mountains of California. These were bristlecone pines (*Pinus longalva*).

Beginning in 1978, Walter Lammerts, a plant scientist, spent several years working with bristlecone pine seedlings in their native habitat of Arizona. He discovered that the San Francisco Mountain region, in which they grow, has spring and fall rains with a very dry summer in between. Working carefully with the seedlings and giving them the same type of watering and other climatic conditions that they would normally receive,—he found that much of the time the bristlecone pines produce two growth rings a year. This is an important discovery, for it would indicate that the sequoias—not the bristlecone pines—are probably the oldest living things on earth.

Think of it! Today we have just ONE generation of the *Sequoia gigantea*! Both the parent trees and their offspring are still alive. There is no record of any tree or other living thing that is older than any reasonable date given for the Genesis Flood. In the case of the giant sequoias, there is no reason why they could not have lived for many thousands of years beyond their present life span.

For additional information on tree ring dating, see chapter 6, *Inaccurate Dating Methods*.

50 - MUTATION LOAD—Before completing this section on the evidence from living things, it is of interest that one researcher, *H.T. Band, discovered in the early 1960s that natural selection was not eliminating the "*genetic load*" (the gradually increasing negative effect of mutation on living organisms). Thus mutational defects are accumulating, even though some are only on recessive genes. Calculations, based on genetic load, indicate that life-forms could not have continued more than several thousand years—and still be as free from mutational defects as they now are.

Next we shall consider EVIDENCE FROM CIVILIZATION that the earth is quite young:

(The information given in this section is somewhat paralleled by material to be found in Ancient Cultures and As Far Back as We Can Go, near the end of chapter 13, Ancient Man. Additional material will be found there.)

51 - HISTORICAL RECORDS—If mankind has been living and working on Planet Earth for millions of years, why do we find records of man only dating back to about 2000-3500 B.C.? And these records, when found, reveal the existence of highly developed civilizations.

As is shown the writings, language, and cultures of ancient mankind started off fully developed—but are not found to have begun until about 2000-3000 B.C.

(1) Early Egyptian Records. The earliest historical books are those of the Egyptians and the Hebrews. The historical dates assigned to the beginnings of Egyptian and Sumerian history are based primarily on king-lists. The earliest records are the Egyptian king-lists, dating from about the First Dynasty in Egypt, between 3200 and 3600 B.C. But internal and external evidence indicates that these dates should be lowered. An Egyptologist writes:

"We think that the First Dynasty [in Egypt] began not before 3400 and not much later than 3200 B.C. . . A. Scharff, however, would bring the date down to about 3000 B.C.; and it must be admitted that his arguments are good, and that at any rate it is more probable that the date of the First Dynasty is later than 3400 B.C., rather than earlier."—*H.R. Hall, "Egypt: Archaeology," in Encyclopedia Britannica, 1956 edition, Vol. 8, p. 37.*

The problem with First Dynasty dates is they are based on the king-lists of Manetho, an Egyptian priest who lived many centuries later, in 250 B.C. Manetho's writings have only been preserved in a few inaccurate quotations in other ancient writings. Barton, of the University of Pennsylvania, points out the problem here:

"The number of years assigned to each [Egyptian] king, and consequently the length of time covered by the dynasties, differ in these two copies, so that, while the work of Manetho forms the backbone of our chronology, it gives us no absolute reliable chronology."—*George A. Barton, Archaeology and the Bible, p. 11.*

Confusion in regard to Egyptian dating has continued on down to the present time.

"In the course of a single century's research, the earliest date in Egyptian history—that of Egypt's unification under King Menes [first king of the first Egyptian dynasty]—has plummeted from 5876 to 2900 B.C., and not even the latter year has been established beyond doubt. Do we, in fact, have any firm dates at all?"—*Johannes Lehmann, The Hittites (1977), p. 204.*

It is difficult to obtain exact clarity when examining ancient Egyptian texts. A number of Egyptologists think that Manetho's lists dealt not

with a single dynasty—but with two different ones that reigned simultaneously in upper and lower Egypt. This would markedly reduce the Manetho dates.

Manetho's king-list give us dates that are older than that of any other dating records anywhere in the world. But there are a number of scholars who believe that (1) the list deal with two simultaneously reigning sets of kings; (2) that they are not numerically accurate; and (3) that Manetho fabricated names, events, numbers, and history, as did many ancient Egyptian Pharaohs and historians, in order to magnify the greatness of Egypt or certain rulers. For example, it is well-known among archaeologists and Egyptologists that ancient Egyptian records exaggerated victories while never mentioning defeats. The Egyptians had a center-of-the-universe attitude about themselves, and they repeatedly colored or falsified historical reporting in order to make themselves look better than other nations around them.

In contrast, it is highly significant that well-authenticated Egyptian dates only go back to 1600 B.C.! Experts, trying to unravel Egyptian dating problems, have come to that conclusion.

"Frederick Johnson, coworker with Dr. Libby [in the development of, and research into, radiocarbon dating], cites the general correspondence [agreement] of radiocarbon dates to the known ages of various samples taken from tombs, temples, or palaces out of the historical past. Well-authenticated dates are known only back as far as 1600 B.C. in Egyptian history, according to John G. Read (*J.G. Read, Journal of Near Eastern Studies, 29, No. 1, 1970*). Thus, the meaning of dates by C-14 prior to 1600 B.C. is still as yet controversial."—*H.M. Morris, W.W. Boardman, and R.F. Koontz, Science and Creation (1971), p. 85.*

Because cosmologists, chronologists, historians, and archaeologists heavily rely on Egyptian dates for their theories, Egyptian dating has become very important in dating the ancient world, and thus quite influential. This is because it purports to provide us with the earliest *historical* dates. There is evidence available that would definitely lower archaeological dates and bring them into line with Biblical chronology.

We planned to include a more complete study on this subject in chapter 21, *Archaeological Dating*, but we had to heavily reduce it for lack of space. However, you will find it in chapter 35 on our website, evolution-facts.org.

(2) *The Sumerians*. The Sumerians were the first people with written records in the region of greater Babylonia. Their earliest dates present us with the same problems that we find with Egyptian dates. *Kramer, an expert in ancient Near Eastern civilizations, comments:

"The dates of Sumer's early history have always been surrounded with uncertainty."—**S.N. Kramer, "The Sumerians," in Scientific American, October 1957, p. 72.*

(We might here mention that the carbon-14 date for these earliest Near Eastern civilizations is not 3000, but 8000 B.C. In chapter 6, *Inaccurate*

***Dating Methods*, we will discover that radiocarbon dating seriously decreases in reliability beyond about 1500 years in the past.)**

52 - EARLY BIBLICAL RECORDS— The Bible is valid history and should not be discounted in any scientific effort to determine dates of earlier events. The Bible has consistently been verified by authentic historical and archaeological research. (For an in-depth analysis of a primary cause of apparent disharmony between archaeological and Biblical dates, see chapter 35, *Archaeological Dating*, on our website).

It is conservatively considered that the first books of the Bible were written by Moses c.1510-1450 B.C. (The date of the Exodus would be about 1492 B.C.) Chronological data in the book of Genesis would indicate that Creation Week occurred about 4000 B.C., and that the date of the Flood was about 2348 B.C.

Some may see a problem with such a date for the Genesis Flood. But we are dealing with dates that are quite ancient. The Flood may have occurred at a somewhat earlier time, but it may also be that the earliest-known secular dates should be lowered somewhat, which is probably the case here. It is well to remember that, in seeking to corroborate ancient dates, we can never have total certainty about the past from secular records, such as we find in Egypt and Sumer.

53 - ASTRONOMICAL RECORDS—Throughout ancient historical writings, from time to time scholars come across comments about astronomical events, especially total or almost total solar eclipses. These are much more accurate time dating factors! Because of the infrequency of solar eclipses at any given location and because astronomers can date every eclipse going back thousands of years, a mention of a solar eclipse in an ancient tablet or manuscript is an extremely important find!

A solar eclipse is strong evidence for the dating of an event, when ancient records can properly corroborate it.

We can understand why the ancients would mention solar eclipses since, as such rare events, they involve the blotting out of the sun for a short time in the area of umbra (the completely dark, inner part of the shadow cast on the earth when the moon covers the sun). Yet, prior to 2250 B.C., we have NOT ONE record of a solar eclipse ever having been seen by people! This is a very important item of evidence establishing a young age for the earth.

"The earliest Chinese date which can be assigned with any probability is 2250 B.C., based on an astronomical reference in the *Book of History*."—*Ralph Linton, *The Tree of Culture* (1955), p. 520.

54 - WRITING—The oldest writing is pictographic Sumerian inscribed on tablets in the Near East. The oldest of these tablets have been dated at about 3500 B.C. and were found in the Sumerian temple of manna.

The earliest Western-type script was the proto-Sinaitic, which appeared in the Sinai peninsula about 1550 B.C. This was the forerunner of our Indo-Aryan script, from which descended our present alphabet.

55 - CIVILIZATIONS—It is highly significant that no truly verified archaeological datings predate the period of about 3000 B.C. When larger dates are cited, they come from radiocarbon dating, from methods other than written human records, or from the suspect Manetho's Egyptian king-list.

56 - LANGUAGES—Mankind is so intelligent that languages were soon put into written records, which were left lying about on the surface of the earth. We know that differences in dialect and language suddenly developed shortly after the Flood, at which time men separated and traveled off in groups whose members could understand one another (Genesis 11:1-9).

The records of ancient languages never go back beyond C. 3000 B.C. Philological and linguistic studies reveal that a majority of them are part of large "language families," and most of these appear to radiate outward from the area of Babylonia.

For example, the Japhetic peoples, listed in Genesis 10, traveled to Europe and India, where they became the so-called Aryan peoples. These all use what we today call the *Indo-European Language Family*. Recent linguistic studies reveal that these languages originated at a common center in southeastern Europe on the Baltic. This would be close to the Ararat range. *Thieme, a Sanskrit and comparative philology expert at Yale University, gives this estimate:

"Indo-European, I conjecture, was spoken on the Baltic coast of Germany late in the fourth millennium B.C. [c.3000 B.C]."—*Paul Thieme, *"The Indo-European Language," in Scientific American, October 1958, p. 74.*

57 - POPULATION STATISTICS—Our present population explosion is especially the result of improved sanitary conditions at childbirth and thereafter. In earlier centuries, many more children died before the age of three.

It is thought that the period between 1650 and 1850 would be a typical time span to analyze population growth prior to our present century, with its many technological advantages. One estimate, based on population changes between 1650 and 1850, provides us with the fact that at about the year 3300 B.C. there was only one family!

"The human population grows so rapidly that its present size could have been reached in less than 1% (3200 years) of the minimum time assumed (½ million years) for man on the basis of radiometric dating."—Ariel A. Roth, summary from *"Some Questions about Geochronology," in Origins, Vol. 13, No. 2, 1986, pp. 59-60.*

The rate of world population growth has varied greatly throughout history as a result of such things as pestilences, famines, wars, and catastrophes (floods, volcanoes, earthquakes, and fires). But with all this in mind, estimates generally focus on 300 million as the population of the earth at the time of Christ. Based on small-sized families, from the time of the Flood (c. 2300 B.C.) to the time of Christ, the population by that time would have been about 300 million people.

If, in contrast, the human race had been on earth for one million years, as the evolutionists declare, even with a very low growth rate of 0.01 (1/100) percent annually, the resulting population by the time of Christ would be 2×10^{43} people (2×10^{43} is the numeral 2 followed by 43 zeros!). A thousand solar systems, with nine planets like ours could barely hold that many people, packed in solid!

58 - FACTS VS. THEORIES—In 1862, *Thompson said the earth was *20 million years old*. Thirty-five years later, in 1897, he doubled it to *40 million*. Two years later, *J. Joly said it was *90 million*. *Rayleigh, in 1921, said the earth has been here for *1 billion years*. Eleven years later, *W.O. Hotchkiss moved the figure up to *1.6 billion* (1,600,000,000). *A Holmes in 1947 declared it to be *3.35 billion* (3,350,000,000); and, in 1956, he raised it to *4.5 billion* (4,500,000,000). Just now, the age of the earth stands at about *5 billion years*. Pretty soon, someone will raise it again.

Men dream up theories, and then they call it science.

"These dates for the age of the earth have changed, doubling on average every fifteen years, from about 4 million years in Lord Kelvin's day to 4500 million now."—*Michael Pitman, *Adam and Evolution* (1984), p. 235.

"Dr. A.E.J. Engel, Professor of the California Institute of Technology, comments that the age for the earth accepted by most geologists rose from a value of about 50 million years in 1900 to about 5 billion years by 1960. He suggests facetiously that 'if we just relax and wait another decade, the earth may not be 4.5 to 5 aeons [1 aeon = 1 billion years], as now suggested, but some 6 to 8 or even 10 aeons in age.'"—*H.M. Morris, W.W. Boardman, and R.F. Koontz, *Science and Creation* (1971), p. 74 [referring to *A.E.J. Engel, "Time and the Earth," in *American Scientist* 57, 4 (1969), p. 461].

Those long ages were assigned primarily because of a 19th-century theory about rock strata (see chapter 12, *Fossils and Strata*) and supposedly confirmed by radioactive dating (the serious problems of which are discussed in chapter 6).

In this chapter, we have seen a surprising number of solid evidences for a young earth. They all point to a beginning for our planet about 6,000 to 10,000 years ago.

The young earth evidence is powerful. As discussed in this chapter, (1) ultraviolet light has only built up a thin layer of moon dust; (2) short half-life radioactive non-extinct isotopes have been found in moon rocks; (3) the moon is receding from earth at a speed which requires a very young earth;—and on and on the solid evidence goes, throughout the

remainder of the chapter you have just completed. Read it again. It is solid and definite. (4) The lack of ancient human records on solar eclipses is alone enough to date man's existence on the earth. Men are so intelligent that, in various places on earth, they have always kept written records—yet such records do not exist prior to about 4300 years ago.

The evidence for creation science is clear and forthright.

In a word, it is scientific.

EVOLUTION COULD NOT DO THIS

The sponge is a creature which lives in many parts of the world, and is regularly harvested in the Gulf of Mexico. This little fellow has no heart, brain, liver, bones, and hardly anything else. Some sponges grow to several feet in diameter; yet you can take one, cut it up in pieces, and squeeze it through silk cloth, thus separating every cell from every other cell, and then throw part or all of the mash back into seawater. The cells will all unite back into a sponge! yet a sponge is not a haphazard arrangement of cells; it is a complicated structure of openings, channels, and more besides.

Yes, we said they have no brains; but now consider what they do: Without any brains to guide him, the male sponge knows—to the very minute—when the tide is about to begin coming in. Immediately he releases seed into the water and the tide carries them in. The female sponge may be half a mile away, but she is smart enough (without having any more brains than he has) to know that there are seeds from the male above her in the water. Immediately recognizing this, she releases thousands of eggs which float upward like a cloud and meet the male sperm. The eggs are fertilized and new baby sponges are eventually produced. Really, now, Uncle Charlie, you never explained the origin of the species. Can you explain anything else about them?

STUDY AND REVIEW QUESTIONS

THE AGE OF THE EARTH

GRADES 5 TO 12 ON A GRADUATED SCALE

1 - Working with your class, make some tree ring samples and date them.

2 - Do you live near any of the types of evidences listed in this chapter? Name them.

3 - On a map of the world, find where some of the things which are evidences of a young earth are located.

4 - Out of all the evidences given in this chapter, which show that our planet is quite young? Which five do you consider to be the best? Memorize them, so you can later tell them to others.

5 - Which five do you consider to be the most surprising? Why?

6 - Why is it that no historical records of any kind go back beyond only a few thousand years B.C.?

7 - Scientists were certain that there should be an extremely thick layer of dust on the moon. Why did they find almost no dust on the moon?

8 - List seven of the strongest reasons from the other planets that indicate a youthful age for our solar system.

9 - List three of the best evidences from our moon that our world is only a few thousand years old. Which one do you consider to be the best? Why?

10 - Which evidence from natural gas and oil do you consider to be the best? Why?

11 - Why do evolutionists find it necessary every few years to keep dramatically increasing the supposed age of the earth and the universe?

12 - How many of the large number of evidences given in this chapter would be sufficient to prove that the earth is not very old?

13 - Why is the decay of earth's magnetic field such a powerful argument in favor of a young earth only a few thousand years old?

14 - Write a report on one "early earth" evidence which especially interested you. After completing it, explain it orally in class.