THE BIBLE VS. EVOLUTION

Visual LESSON 8. THE ORIGIN OF LIFE.

KEY SCRIPTURE: "By the word of the Lord the heavens were made, And all the host of them by the breath of His mouth. He gathers the waters of the sea together as a heap; He lays up the deep in storehouses. Let all the earth fear the Lord; Let all the inhabitants of the world stand in awe of Him. For He spoke, and it was done; He commanded, and it stood fast." Psalms 33:6-9 (NKJV)

Preparing to Teach the Lesson:

The Bible makes it plain that God is the source of all life. Not only are humans far too complex to be the result of random chemical processes, but every living thing is "fearfully and wonderfully made" (Ps. 139:14).

The need for a Creator is unacceptable to many evolutionists. Remember that the most fundamental postulate of evolution is that everything must be explainable by purely natural processes. Thus, almost every biology textbook contains the same evolutionary story about how life on earth began billions of years ago by random chemical processes. This lesson will expose the errors in that story and show that life does indeed require a Creator.

Today's Aim:

In this lesson we are going to see that not only do "the heavens declare the glory of God and the firmament sheweth His handywork" (Ps. 19:1), even the very simplest forms of life such as bacteria show His awesome power and wisdom. All of life testifies to the glory of the Creator.

Introducing the Lesson:

Where did life come from? The Bible makes it plain that God created every living thing from the largest whales down to the tiniest bacteria. However, fallen man does not like to acknowledge the existence of a supernatural Creator to whom he will one day have to give an account for his life. We keep trying to do away with the need for such a being.

In centuries past, people believed that life could arise spontaneously from nonlife. For example, it was thought that rotting meat would automatically produce maggots, and piles of garbage would produce mice. However, careful observation showed that these animals did not come from the meat and garbage but were intruders. Experiments by such great scientists as Louis Pasteur showed that life comes only from life.

The battle has shifted. Nobody believes anymore that complex animals could arise from non-living substances. However, since evolutionists believe that everything must be explainable by purely natural processes, they say that some extremely primitive microscopic organism must have developed billions of years ago by natural processes operating on lifeless chemicals. Everything that has ever lived is supposed to be descended from this first living thing.

The opposing ideas of Biblical creation versus chemical evolution lead us to expect sharply different evidence in nature:

Visual ^{#8-2} 1. Creation says that life should be far too <u>complex</u> to develop from non-life. Also, since the earth was able to sustain modern-type plants and animals by the end of the creation week, we should find evidence that the environment on the early earth was fairly similar to the way it is today.

2. Evolution says that life developed from non-living <u>chemicals</u>. We expect that under the right conditions, it could happen again. Also, since the conditions needed would be very different than those in the world today, there should be evidence in nature that conditions on the early earth were very different than at present.

In order to determine which possibility is more reasonable we need to look at some of the details of life. First, just what is life? Nobody knows. Imagine two chemi-^{#8-3} cally identical collections of matter. One of them takes in nutrition, excretes wastes, interacts with the environment, grows, and reproduces. The other does not. Though they are chemically identical, one is alive and the other dead.

3. Science can describe how <u>life</u> operates but cannot tell us what it is nor why it exists.

The source of life remains a mystery to scientists. Perhaps they should read the Bible! Life is not a haphazard arrangement of matter. It is extremely orderly.

4. The basic unit of life is the **<u>cell</u>**.

A living thing may consist of a single cell as in an amoeba, or trillions of them as in mammals. Thus, in looking for a way life could have come from lifeless chemicals, evolutionists focus on how to put together the simplest possible cell.

5. Even the simplest known cell is made up of hundreds of various types of protein molecules linked together into an intricate structure. The protein molecules themselves are composed of hundreds of smaller components known as <u>amino</u> acids.

The question, then, is: *could amino acids have come together on the early earth into proteins which then linked up into a primitive living cell?*

Visual #8-4 The presently accepted scenario for how life could have begun by accident is known as the Oparin (o-par-in)-Haldane hypothesis, proposed in 1924 by Russian biochemist A.I. Oparin and developed further by British biologist J.B.S. Haldane in 1928. As atheists they looked for a purely naturalistic explanation for life. Since it is not forming from non-life today, they said that conditions on the early earth must have been much different. The atmosphere had to be composed of a different mix of gases; the oceans must have contained a mixture of chemicals (commonly known as the primordial soup) that were bombarded by some sort of energy source which enabled them to form amino acids, proteins, and living cells.

6. In order for life to begin from non-living chemicals, the <u>right</u> mixture would have to come together in the <u>right</u> place at the <u>right</u> time and experience exactly the <u>right</u> conditions.

In the 1950's chemist Stanley Miller devised an experiment to test part of this hypothesis. Since Oparin and Haldane had proposed that life began in a primordial

soup consisting of various gases dissolved in the early oceans, he attempted to sim-Visual #8-5 ulate such conditions by bringing together methane, ammonia, water vapor, and hydrogen in a spark chamber. (These gases contain carbon, hydrogen, nitrogen, and oxygen, most of the elements needed to produce amino acids.) The mixture was struck periodically by electric sparks, then the compounds produced were removed by a trapping mechanism. After a while he found that his apparatus had produced a number of compounds including some amino acids.



As a result of such experiments, many people think that life has been produced in the lab. It has not. Miller succeeded only in producing some amino acids. Those who claim that scientists have produced life under laboratory conditions either don't know, or else deliberately ignore, the fact that a living cell is far more complex than iust a few amino acids.

Visual #8-6

Cells are made of hundreds or thousands of proteins, each of which are made of hundreds of amino acids of various types connected in precise order. Though amino acids come in hundreds of possible varieties, cells use only twenty specific kinds. While Miller's experiment and others based on it have produced at least fifteen of these twenty as well as the bases used in DNA and RNA, the vast majority of compounds produced are biologically useless or even harmful. They include scores of kinds of amino acids not used in living things, various sugars, and many other miscellaneous organic (carbon-based) and inorganic compounds.

With this in mind, let's look in detail at what's wrong with the Oparin-Haldane hypothesis.

7. Besides the fact that **no** traces of the primordial soup have ever been found, there are at least eight reasons to believe that conditions on earth have never been right for life to begin on earth by natural chemical processes.

Visual #8-7

a. Oxygen in the Atmosphere.

Oxygen is a highly reactive substance. If it were freely available in the early atmosphere, the other gases mentioned above would react with it at least as rapidly as with each other.

i. If **oxygen** were freely available in the early atmosphere, the resulting compounds would be useless in forming living cells. They would produce biological "garbage compounds."

As a result, free oxygen has been excluded from origin-of-life experiments. The only oxygen present in such experiments has been bound to hydrogen in the form of water (H2O) so that it cannot interfere with other reactions. The evidence of geology shows that such conditions have never existed in nature. The very lowest Precambrian sediments contain "red beds," geologic formations that obtained their characteristic color through oxidation, a process requiring free oxygen.(Rust is the best known form of oxidation.) According to the evolutionary time scale, some of these rocks were here hundreds of millions of years before life began.

- ii. The evidence from geology indicates that from the time sediments began to accumulate, the earth's atmosphere has always contained free <u>oxygen</u>. This fits far better with creation than with evolution.
- Visual #8-8

Living things are able to deal with the oxygen problem because DNA provides the blueprint to bring the right chemicals together in the proper order despite the tendency of oxygen to interfere. DNA would not have been present to allow the first living cell to overcome this obstacle. Without it, the chemical reactions needed to produce life from lifeless chemicals could not have occurred.

Remember that evidence may be incomplete, withheld, or falsified. This is a clear case of it being withheld. Though the evidence of oxygen in the sediments is well known in the scientific community, biology textbooks say that the early atmosphere did not contain free oxygen but that the oxygen was released from inside the earth's crust long after life appeared. The textbook authors withhold the evidence of free oxygen because of personal prejudice against the possibility of creation, not because of scientific reasons. Few students know this. Most think their textbooks are telling them the truth about how life began. It's up to us to tell them the real truth.

Visual #8-9

b. The Oxygen-Ultraviolet Dilemma.

Let's suppose that contrary to the evidence, there was no free oxygen in the early atmosphere. In that case, it would be possible for some amino acids to come together by random chemical action. What then? They would be quickly destroyed. As organic (carbon based) compounds, they are highly vulnerable to damage by long-wave ultraviolet light. (If one of your students wants details, long-wave UV has wavelength greater than about 300 nanometers) with the greatest destruction occurring at just under 310 nm). This form of UV constantly pours down on the earth from the sun. As soon as amino acids and other organic compounds came together, the long-wave UV would break them down into their components.

Sunburn is a mild effect of long-wave UV. Things would be a lot worse if it weren't for the ozone layer of the atmosphere, which filters out most of it before it can reach us. Without the ozone layer we would soon be dead. Just how destructive is this long-wave UV? The late Carl Sagan, certainly no friend to creationists, estimated that a typical modern organism subjected to the intensity of UV that would reach the earth's surface in an oxygen-free atmosphere would absorb a lethal dose in an average of 0.3 seconds! And what is ozone? A form of oxygen.

If we insist that life began by random chemical action, we are faced with a dilemma:

If there was free oxygen in the early atmosphere the <u>chemical</u> reactions needed to produce life could not have occurred;

If there was no free oxygen the sun's long-wave ultraviolet radiation would have <u>destroyed</u> any amino acids as fast as they could form.

Evolutionists ignore this evidence because of their presuppositions, most importantly that everything must be explainable by purely natural processes and therefore evolution is the only possibility. All the evidence in the world won't convince someone who refuses to admit that there are other possible alternatives such as creation.

Some experiments based on Miller's have used a form of UV to furnish the energy the chemicals need to come together into amino acids. However, they use short wavelengths (about 200 nm). Long wavelengths are far more prevalent in nature. Long wave UV has been unnaturally excluded from the experiments because it destroys organic compounds as fast as they can form.

Visual c. The Trapping Mechanism.

The compounds produced in origin-of-life experiments must be removed from the system before the energy source that formed them (sparks, UV, heat, etc.) operates again. Because a second burst of energy would quickly destroy them, experimenters use a trapping mechanism to get them out of the system.

Natural energy sources such as lightning and volcanic heat are many times more powerful than those used in the lab. It would be even more important for the compounds in nature to be removed from repeated contact with such sources.

No one has identified a plausible **trapping** mechanism in nature or demonstrated how one might have operated. There is no evidence that such a mechanism ever existed.

A natural trap would have to be far more complex than those used in the lab. Not only would it have to remove the amino acids from contacting the energy at the wrong times, it would also have to bring them back into contact at the right times in order for them to link up into more and more complex molecules, which in turn would have to be removed and brought back into contact with the energy repeatedly, at exactly the right times, until a complete cell came together. All of this is supposed to have taken place by random chance. So which belief takes more faith, creation or evolution?

Visual #8-11

d. The Problem of Nitrogen.

Every living thing ever studied been made up of cells, which are largely made up of proteins, which in turn are made up of amino acids. Amino acids are named because they have an *amine* group (formula -NH₂) on one end.

In order for amine groups to form in the first place, individual atoms of nitrogen must be available. However, nitrogen in the atmosphere consists of two atoms connected by a triple bond in the diatomic molecule N_2 . The bond between the two atoms is so strong that nitrogen is extremely unreactive and can actually be used to extinguish fires.

Before nitrogen can be used to form amino acids, the N₂ molecule must be separated into two individual atoms in a process called *fixation*. Most nitrogen fixation is done by bacteria. The problem is that bacteria would not have existed before the first cell came alive because they are cells themselves. There would have been very little fixated nitrogen available in order for life to begin.

Cells are made up of proteins, which are made up of amino acids. These require *amine* groups (-NH₂), which require individual atoms of nitrogen, not the atmospheric form of N_2 .

N₂ molecules in the atmosphere are bound together in a very strong triple bond. They are useless until they are separated ("fixated") into two individual atoms. Most nitrogen fixation is done by **<u>bacteria</u>**, which would not have existed before the first living cells because they are living cells themselves.

There is one other known way nitrogen can be fixated in very limited areas: by lightning. (If lightning were the source of fixation, this would eliminate UV, heat, impact, etc. as possible energy sources for the hypothetical origin of the first living cell.)

If lightning were responsible, it would have had to strike to make fixated nitrogen available to form amine groups, then it would have had to wait exactly the right amount of time for them to diffuse through the environment, then strike again at a greatly reduced strength at exactly the same spot to make them combine into amino acids without destroying them.

Visual #8-12	The other way nitrogen can be fixated is by <u>lightning</u> .
	form
	ii. Then it would have had to wait exactly the right amount of time for them
	to diffuse through the environment.
	iii. Then it would have had to strike again at a greatly reduced strength at
	exactly the same spot to make them combine into amino acids without
	destroying them.

This is a matter of faith, not science.

Visual #8-13 e. C

e. Optical Isomers: Left-Handed Amino Acids.

Cells are made of proteins, which in turn are made of amino acids. The DNA within the cells is made of sugars linked by bases. Most of these amino acids and sugars can exist in at least two forms known as optical isomers, designated right-handed (abbreviated as "D-" for dextrorotary) or left-handed ("L-" for laevorotary) according to the direction they polarize light. Unless D- acids are continually removed, the experiments previously mentioned produce about a 50/50 mix of left-and right-handed.

It stands to reason that if amino acids were the result of random chemical action, cells should contain about a 50/50 mix of L- and D- forms. They do not.

i. Contrary to the 50/50 results of origin-of-life experiments, living things use <u>100</u>% left-handed amino acids in their proteins, while the sugars in their DNA are 100% right-handed forms.

(A few organisms use D- acids in hard structures such as shells, but not in any of their proteins.)

Only with sophisticated equipment and careful supervision can we increase the percentage of L- acids in origin-of-life experiments. Even then, scientists have been unable to obtain 100% L- acids. Even if we start with only the L- form, we still have a problem: L- amino acids isolated anywhere except in living organisms undergo a process called racemization by which some become right-handed, moving the mixture toward a 50/50 ratio. L- amino acids are only stable in living things.

Could this exclusive use of L- acids happen by chance? The simplest known cell is made of about 600 proteins averaging about 400 amino acids each. Let's suppose the first living cell was far simpler, with only 125 proteins of 100 amino acids each, and that instead of being composed of 20 different kinds of amino acids, it was made up of only one kind. Thus, we need 12,500 L- amino acids in a row. If the L- and D-forms were equally available, what would be the probability that only the L- acids would be used? It would be about the same as the probability of flipping 12,500 coins at the same time and having every one come up heads - one in 2^{12,500}, or less than one in 10³⁷⁶⁰. This is a "1" with 3,760 zeroes after it, a number far beyond human comprehension.

ii. Even if the first cell had only 125 proteins of 100 amino acids each, the odds of it having all left-handed amino acids would be about 1 in 10^{3760} .

Visual ^{#8-14} Remember the groundhog we talked about in an earlier lesson, trying to get across a thousand lane superhighway? We saw that if he has a 50/50 chance of getting across any one lane, his odds of getting across a thousand lanes are about 1 in 10³⁰⁰. To represent how unlikely it is that our hypothetical cell could have acquired all L- amino acids by chance, we have to add thousands of lanes for our poor groundhog to cross. Rather than crossing 1,000 lanes of traffic, he has to make it across 12,500.

Let's improve the odds by turning loose as many groundhogs as there atoms in the universe (usually estimated at about 10⁸⁰). It doesn't do much good. On the average, half are killed in each lane. The probability is that the last one will get splattered somewhere around lane 270. Even if a heroic groundhog makes it dozens of lanes farther, there are still over 12,200 lanes to go!

This is ridiculously improbable. The chance of finding only left-handed amino acids in even such an unrealistically simple cell is so small that it's a virtual impossibility. (Mathematicians usually consider an event with odds of less than one in 10⁵⁰ impossible.) In reality there would be many types of chemicals trying to react with each other, not just one type of amino acid. And we haven't even looked at any of the other problems that would stop a cell from coming together by random chemical action. Sound like a bet you'd want to take?

Visual #8-15

f. The Problem of Chemistry.

A cell is much more than a few amino acids strung together. Hundreds or thousands of them have to link up into any one of thousands of possible types of proteins. In turn, hundreds or thousands of the correct types of proteins have to link together in the proper order to form a cell.

Let's assume for the sake of argument that the early earth had the right condi-

tions to form amino acids and other essential components of cells. At least four more stages would be necessary to produce a cell by random chemical action:

- The components would have to fight their way through all the useless compounds in their way and link into longer segments known as polymers, such as starches, proteins, and partial or complete strands of DNA and RNA. Remember, these are lifeless chemicals that don't know what they are supposed to do.
- These polymers would have to join together into gelatinous blobs (called coacervates or microspheres), which would then be capable of attracting other molecules to themselves.
- At least one of these would have to absorb the necessary molecules to be able to reproduce and get evolution started. In order to reproduce, it would need at least a minimally functional strand of DNA or something like it.
- Finally, some unknown process would have to happen to make the whole collection come alive.

Could it happen?

i. Even under tightly controlled conditions, origin-of-life experiments produce mostly **useless** material.

The products of such experiments include not only 15 of the 20 types of L- amino acids used by living cells but also the useless D- form of these types, at least 40 other useless kinds of both L- and D- amino acids, many types of L- and D- sugars, at least 5 kinds of bases, and numerous other biologically useless compounds. Because these can combine in myriads of possible ways, there would be constant interfering cross-reactions. Anything with a positive charge would react indiscriminately with the nearest negative charge, rendering great quantities of potentially useful material useless or even harmful. The proper amino acids would be physically prevented from linking up into proteins by all the other chemicals in their way. Remember, these are lifeless chemicals. The amino acids don't know where they are supposed to go and what other amino acids they are supposed to link up with; they react with whatever comes along first.

Chemically speaking, it isn't too hard to put together a few gases to produce some amino acids and other simple organic compounds. However, joining these products into more complex substances such as proteins and DNA is a different story. Even the most sophisticated experiments produce mostly the wrong types of chemicals. As a result,

Visual #8-16 ii. Biochemists attempting to manufacture more complex substances do not start with the kind of chemical soup that comes out of an apparatus like Miller's. They <u>buy</u> the correct amino acids, bases, and sugars in purified form from a chemical supply house.

They don't buy a mixture; they buy the desired chemicals individually. Only then do they have any hope of assembling more complex biological substances. It's like giving the groundhogs we mentioned earlier a head start by bringing them across hundreds of lanes of the highway in helicopters. It's not enough, though, because Miller's primordial soup of methane, ammonia, hydrogen, and water vapor is too simple. The only elements available in this soup are carbon, hydrogen, nitrogen, and oxygen. However, at least two other elements would be needed to form even the simplest cell. The amino acids cysteine and methionine require sulfur. In addition, the nucleotides in DNA/RNA require phosphorous.

iii. Besides the <u>elements</u> available in the "primordial soup" used in experiments, living things also need sulfur, phosphorous, iron, copper, calcium, magnesium, and many others.

When we add these into the mix the chemistry gets so complicated that biochemists trying to prove life was an accident don't even try to make the substances they need. They buy them from a very non-accidental source, a chemical manufacturing lab.

Visual If you thought the odds of using only left-handed amino acids were bad, imagine how impossible it would be to put together a complete cell from all these pieces! The odds against such an event have been calculated at anywhere from 1 in 10^{78,356} to 1 in 10^{2,000,000}. (The groundhog has to make it across not thousands, but millions of lanes on the highway.) Even then the cell couldn't reproduce, because we haven't even considered how DNA might have come together with it.

iv. Even if all the right chemicals came together in the right order, the whole collection still would not be <u>alive</u>. We do not know what causes life.

Would you bet your life on odds like these? Yet some are betting their eternal destiny. The Bible says that those who would come to God must first believe that He exists (Heb. 11:6). Those who insist that life began apart from Him will have a hard time when they stand before Him on judgment day.

Visual #8-18 g. The DNA/Enzyme Dilemma.

Though DNA is crucial to a cell's reproduction, the cell's day-to-day operation requires many other chemicals as well. A cell depends on a great number of reactions which take place much too slowly on their own to be biologically useful. These are speeded up by thousands of special types of protein molecules known as enzymes. In some cases, enzymes allow reactions to take place billions of times faster than normal. Without them life would be impossible.

One of the key functions of enzymes is to perform the chemistry to manufacture DNA. However, the cell needs DNA to perform the chemistry to manufacture them! If the first living cell didn't have DNA it couldn't have made enzymes, but if it didn't have enzymes it couldn't have made DNA. This is an irreducibly complex pairing.

DNA is needed to make *enzymes*, but enzymes are needed to make DNA.

Since DNA and enzymes work together, they could not have evolved by gradual changes in dissimilar mechanisms. Both had to be present from the very beginning. They had to be created.

h. The Cell Membrane.

Even if chemical processes were able to put together the proper amino acids to make a cell and add the DNA it needed to reproduce, one more hurdle remains. We have to put a protective covering around the whole thing to keep it together. Evolutionists would say this is the easy part, because fatty compounds called phospholipids (fos-fo-lip-ids) combine readily to form membranes. This is true, but it is much too simplistic an explanation of what happens.

Phospholipids look somewhat like tadpoles, with a head and a tail. They link up in pairs to form a double layered membrane, with the tails inward and the heads outward. This membrane does too good a job of protection for evolution to take place. It keeps out most of the substances a cell needs for reproduction and growth. Phosphates, key ingredients in DNA, have an especially difficult time getting in.

Suppose you were able to make some amino acids come together into proteins while DNA formed in the same place at the same time, all enclosed in a membrane. What would happen next? Nothing! The membrane would prevent most of the additional substances the cell needed from getting in. Whatever was inside would be cut off from the nutrients and raw materials needed for further growth. The cell could neither grow nor reproduce. It would soon be dead.

Visual #8-19 This doesn't happen to real cells because their membranes are much more than just a double layer of phospholipids. They contain thousands of microscopic gateways called ion channels or permeases which let specific substances and electrical signals in and out of the cell at specific places. These are made of specific types of proteins. When one of the gates opens, only a few types of molecules can get through. The rest have to find some other gate designed to let them through, then wait for it to open.

What determines which proteins comprise which gates to let which substances through at which locations? DNA. It is needed to produce all the parts of a cell, even the outer membrane. If not for DNA, nothing useful could get into the cell. It could never grow or reproduce.

Yet another dilemma for evolution:

Without gateways called *ion channels* or *permeases* through the cell **membrane**, DNA could not come together. However, DNA is needed to form these gateways. You can't have one without the other.

This pairing, too, is irreducibly complex.

When we take all these factors into account, we see that the evidence shows that conditions on earth have never been right for life to begin by accident. In fact, even under perfect ideal circumstances, the chemistry of life is so difficult that it couldn't happen by chance anywhere in the universe, no matter how much time was available.

8. Directed Pan-Spermia.

Visual #8-20

Because of such problems, a number of evolutionists (such as Dr. Francis Crick, recipient of the Nobel Prize for his co-discovery of the structure of DNA) reluctantly admit that the accidental formation of life on earth seems impossible.

Rather than turn to creation, some evolutionists have embraced a model called "Directed Pan-Spermia," which says that life was sent to this planet by another civilization somewhere out in **space**.

Pan-spermia has nothing to do with science. It cannot be observed or tested. The

fact that it has gained acceptance as an alternative to creation underscores the impossibility of life on earth beginning by accident. Sir Fred Hoyle, a mathematician, likens the possibility of such an event to the possibility of a tornado sweeping through a junkyard and assembling a Boeing 747, ready to fly. But even this is far too simplistic. It does not take into account the fact that in order to be like a cell, the jet must include a factory to keep itself repaired and to manufacture others like itself while in flight - not to mention that it needs a pilot (corresponding to DNA) to guide the whole process.

9. Is there life on other planets?

Every so often we hear reports of planets around other stars. This always raises the question: Is there life on other planets?

- Visual #8-21
- Anyone who says no is labeled a religious fanatic because they believe the Bible is right in this area, which is beyond the reach of human testing.
- However, those who say yes are equally religious. They use scientific terminology to hide the fact that they believe the Bible is WRONG in this area, which is beyond the reach of human testing.

In seeking to get rid of the Creator they have to ignore the evidence that life could not begin anywhere in the universe by random chemical processes.

Besides the evidence we've seen in this lesson,

a. We have never actually observed other planets outside the solar system.

- Visual Even our most powerful telescopes can't tell if there are any in our own system ^{#8-22} beyond Pluto. The evidence used to support their existence elsewhere is one of two types.
 - *Transit method*: If a planet happened to pass directly between us and its star, it would produce a mini-eclipse. In order for us to detect it, there would need to be a significant drop in the amount of light, repeating at regular intervals. However, it is widely recognized that even a Jupiter-size planet would cause a decrease of far less than one percent. Since many stars (Cepheid Variables, pulsars, etc.) pulsate at regular intervals anyway, reported discoveries of extrasolar planets by the transit method are suspect and are only accepted when confirmed by other means.
 - *Wavelength variation:* If a planet orbited a star in the same plane as the earth, there would be a slight gravitational pull toward us, away from us, toward us again, and so on. This would produce a miniscule periodic variation in the wavelength of the light, which we interpret as an indication that the star is wobbling because of an orbiting companion. Even if this is correct the orbiting objects need not be planets: a brown dwarf star could induce the same type of variation.
- Visual #8-23
 b. The data available indicate that if there are planets around distant stars, they would be too large and too close to the stars to support <u>carbon</u>-based life. Carbon-based compounds break down at the temperatures which would exist on either.

("Study Puts in Doubt Existence of 'Nearby' Planets," *Reuters' News Service*, Feb. 26, 1997).

Even if there are planets out there, the Bible implies that the only place in the universe there is flesh-and-blood life is right here on earth. (Angels flying around in space don't count.)

- Genesis 1:14-18 says that the heavenly bodies are to furnish light, serve as signs, and mark off seasons, days, and years. It doesn't say anything about them being anybody's dwelling place.
- Romans 5:12 tells us that through one man sin entered the world (Greek kosmos,
- Visual #8-24
- which includes not just the earth but the whole universe) and with sin came death. All of creation groans in travail because of what happened right here on earth (Rom. 8:19-22).
 - c. The whole universe is decaying. If beings out in space never sinned, it would be <u>unjust</u> of God to subject them to decay because of something we humans did here.

Yet the Bible and science (the 2nd Law of Thermodynamics) both say that death and decay extend throughout the cosmos.

- The effects of Adam's sin go still farther.
 - d. Adam's sin affected not only the earth but <u>heaven</u> itself. Jesus had to take his blood into the Holy of Holies in heaven to purify it (Heb. 9:22- 24). What happened in the Garden of Eden was so significant that the Son of God had to die to undo its effects.
- If beings on other planets sinned too, then the devil must have been hopping from planet to planet tempting them since the beginning of the universe.
- Deuteronomy 4:32 says that from one end of the heavens to the other, God has never dealt with anyone the way He did with Israel.

e. If extraterrestrials sinned, God did not give them the same chance for **redemption** He gave us. This would be unjust, contrary to His nature.

 1 Corinthians 15, often called the Resurrection Chapter, tells us that the first Adam brought sin and death, but the Last Adam, Jesus, brought righteousness and resurrection. If somebody on another planet (let's call him Zorblatt) sinned, would Jesus have to be the Last Zorblatt on that planet? And if all of creation groans because of what happened on earth, then Zorblatt's sin didn't have much of an effect anyway. Would Jesus have to die on each planet where somebody sinned?

f. The Bible says Jesus died <u>once</u> and for all (Heb. 7:27, 9:26-28). If He needed to die on another planet for another race's sin, then the Bible is wrong.

 2 Peter 3:10 says that when Jesus comes back to judge sinners, not only will the elements on earth melt with fervent heat, but even the heavens (the rest of the universe) will pass away with a great noise. The earth may be just a tiny speck in the physical universe, but it is the center of God's spiritual activity. We who have been saved by the blood of Jesus are trophies of grace whom He is using to display his wisdom and goodness to the principalities and powers in the heavenly places (Eph. 3:10). g. All God needs are the flesh-and-blood beings on this <u>one</u> planet to show the spiritual beings who did not rebel against Him that they made the right choice.

This is where the action is.

Could God have created microbes on other planets? Genesis shows us that everything he did on the earth was to prepare it for human habitation. He could have created microbes out in space, but why would He?

Visual 48-25 10. What about UFOs?

Interest in UFO's (Unidentified Flying Objects) seems to be at an all time high. Many believe that extraterrestrials are hovering nearby with the answers to all our problems. Most UFO's turn out to be ordinary physical phenomena such as reflected light or a burning ball of swamp gas. There have also been cases of fraud such as publicity-seeking farmers flattening crops in a field to make it look like a UFO landing site. But what about the reports that have no known scientific explanation, such as people who claim they were abducted by aliens? We Christians have an advantage over the rest of the world. We know that our enemy is Satan and his method is deception. He can make people think that he, the embodiment of evil, is an angel of light (2 Cor. 11:14). When God allows it, he and his fallen angels are able to interact with the physical world (Job 1:16, 19), even to the point of being able to do things to people's bodies (Job 2:6-7).

a. In the last days Satan will be allowed to <u>deceive</u> many for a short time (2 Thess. 2:9-12, Mt. 24:24).

There have been experiments where hypnotists planted memories of events that never really happened, yet seemed real to the subjects. Why should we doubt that Satan can do the same, even throwing in a few punctures and bruises for good measure? He's pretty good at deception; he's had thousands of years to practice.

Anybody who doubts that alien encounters are a demonic deception should compare the drawings and descriptions from earlier in this century with those of the present. Back then just about all the reports described little green men in flying saucers; now they tell of beings with disproportionately large heads and catlike eyes who travel in sophisticated machines capable of incredible maneuvers.

b. Either the aliens and their ships have <u>evolved</u> a great deal in the last few decades, or else Satan knows what we expect to see and makes sure we get it.

When we take all the evidence into account, we see that no matter how much time was available, life could not come into existence from non-living chemicals anywhere in the universe, even under ideal circumstances. The belief that life is an accident, or that it exists throughout the universe, is every bit as religious as belief in a Creator.

Visual #8-26 11. Life is far too <u>complex</u> to be an accident. The most reasonable explanation for its origin is that God created it.

LESSON REVIEW:

- Evolution says that life is the result of purely natural processes. Creation says that life should be far to complex to have arisen by purely natural processes.
- To allow the chemical processes needed for life to arise spontaneously, evolutionists say the early earth must have had very different conditions than it does at present. For instance, it had to be covered with a mix of chemicals known as a "primordial soup" for millions of years.
- No traces of a primordial soup have ever been found, and geology show that there has always been free oxygen on the earth.
- If oxygen were present on the early earth, the chemical processes to produce life could not have happened. However, it oxygen (ozone) were NOT absent, the sun's UV radiation would have immediately destroyed any potentially useful products.
- The probability that exactly the right chemicals could come together to form life is essentially zero.
- Nature produces a 50/50 mix of the right and left handed amino acids needed to make proteins. Living things use 100% left-handed and zero right-handed.
- Chemists performing origin-of-life experiments do not even try to make their own amino acids. They buy the correct kinds from a chemical supply house.
- DNA cannot be manufactured without enzymes, but the enzymes cannot be manufactured without DNA. This is irreducibly complex.
- Cells cannot take in the chemicals they need to make new DNA without openings called permeases or ion channels, but permeases exist only because the DNA puts them there.
- Directed Pan-Spermia: Some still refuse to admit that God could have made life, so they believe that some intelligent civilization in outer space sent it here.
- Carbon is the only element that can form the long chains needed for life. Even if there are planets outside the solar system, the data indicates that they would be either too hot or too cold for carbon-based compounds to exist.
- The Bible makes it plain that life can only exist where God wills it. There are numerous Biblical arguments against intelligent life existing in space.
- If beings in space did not sin, it would be unfair of God to punish them because of what happened here on Earth.
- If beings in space did sin, Jesus would have had to die many times: once for our sins, and again for theirs.
- God said that He did not give anyone else the opportunity for redemption "from one end of the heavens to the other." (Deut. 4:32)
- Most UFOs have a natural explanation.
- Either UFOs have evolved in the last 70 ears, or else they are a demonic deception. Satan knows what we will accept, and he gives it to us.
- Reports of alien abductions are a demonic deception to turn people away from God.