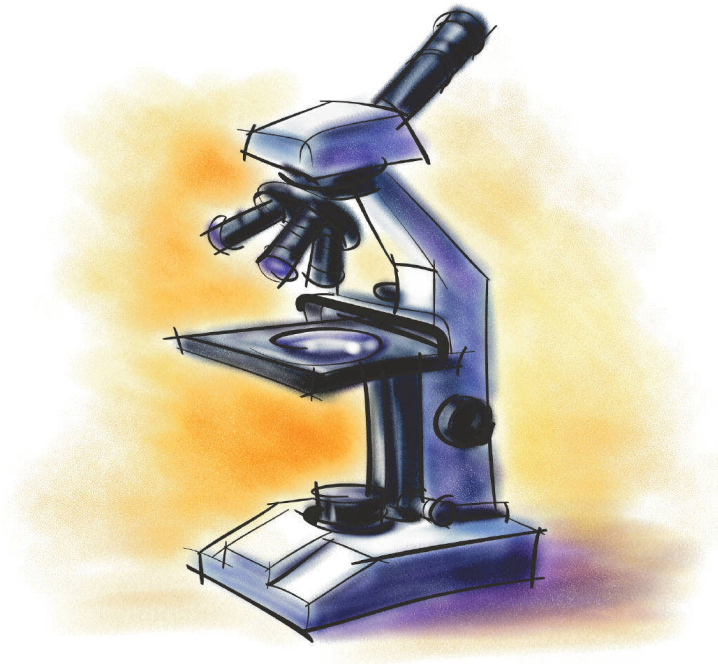
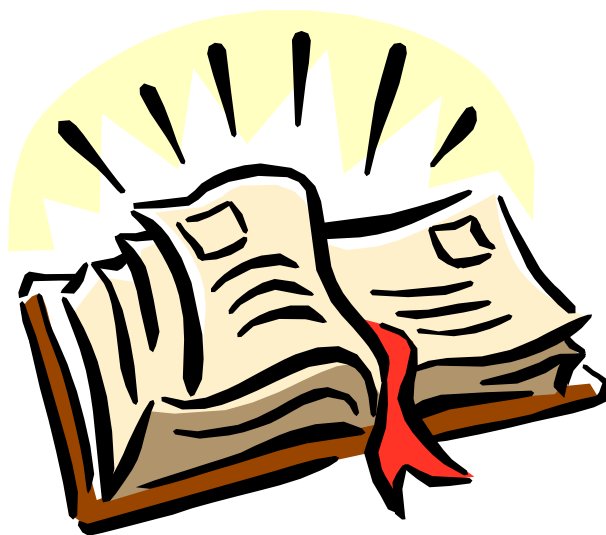


The Harmony of Science



And The Scripture



Introduction:

This document has been produced in hopes that many will be able to come to an independent view on the primary philosophies and scientific theories being embraced by our society. Only one of these theories is normally taught in our school systems. There seems to be three primary positions supported by society's philosophers; which are:

- Darwinists – subscribe to Darwin's Theory of Evolution which evidences no intelligence in nature.
- Intelligent Designists – subscribe to the Theory of Irreducible Complexity which evidences a higher power.
- Creationists – subscribe to the Theory of Dynamic Creation which evidences the Christian God – Jehovah God.

It is recognized that there are many blends of the above positions such as those that subscribe to Jehovah God but feel that the Universe was created over billions of years.

The reader should be familiar with the Scientific Method as some of the theories are being presented to students as facts. The reader can decide, from reviewing the Scientific Method contained in this document, whether a theory has earned the distinction of being stated as facts. Each of the three philosophies is presented in this document as background to the CD lessons.

This ten lesson series is based on CD's that are available from the Creation Research Society's extensive science library. The CD's present all three philosophies stated above. The CD's may be ordered from their website on line at www.crsbooks.org or by ordering their catalog from:

Creation Research Society
6801 N. Highway 89
Chino Valley, AZ 86323.

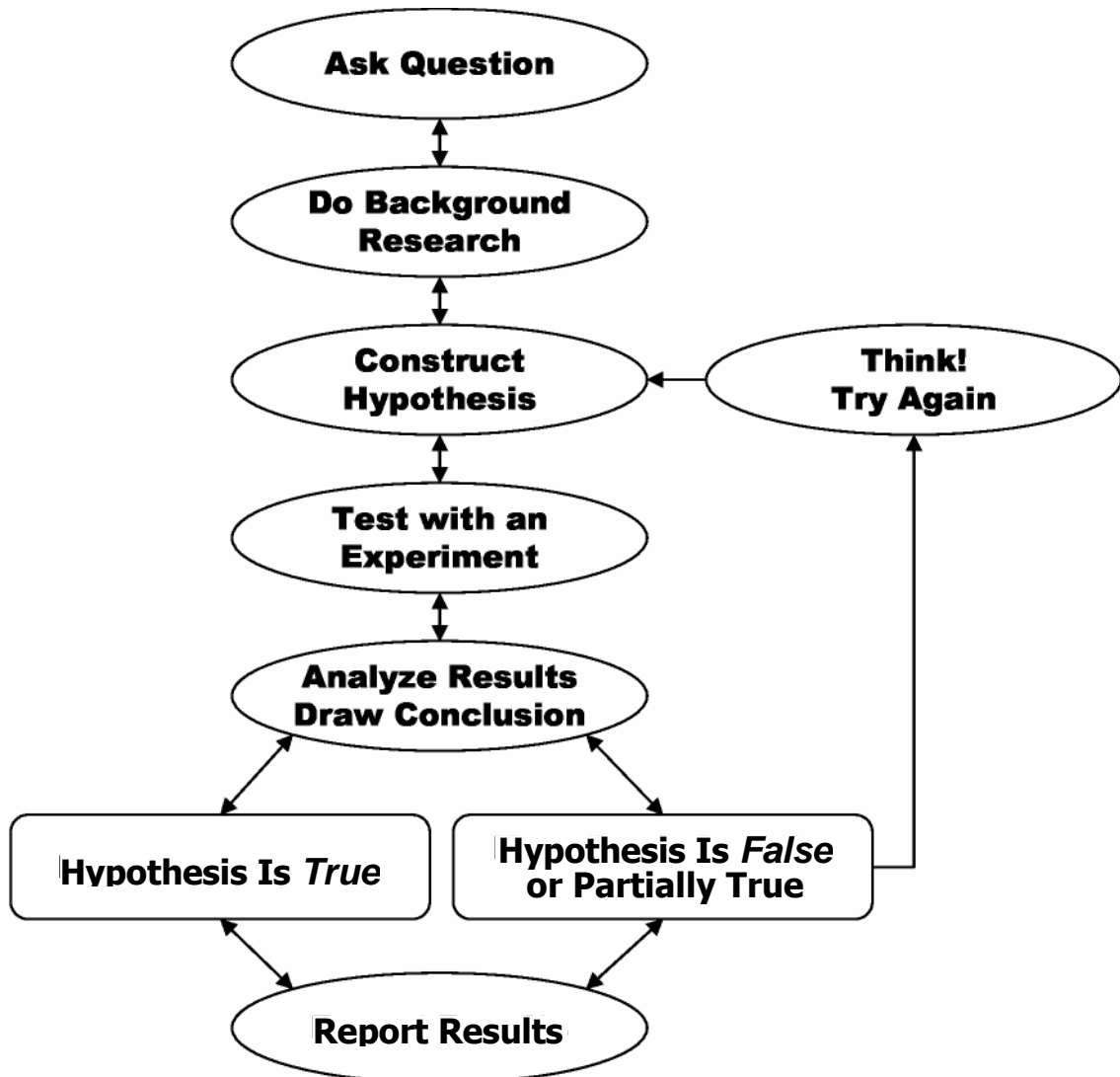
The lessons are taken from the following CD's:

- In The Beginning \$20.00
- Where Does The Evidence Lead..... \$20.00
- Incredible Creatures That Defy Evolution \$20.00
- Thousands Not Billions..... \$20.00
- The Priviledged Planet \$20.00

There is also an excellent movie that is available at many rental stores entitled "Expelled" that presents society's bias towards Darwinism. Let the student and reader beware of blindly accepting theories without the review of the evidence that supports them!

➤ The Scientific Method

Even though this diagram shows the scientific method as a series of steps, keep in mind that new information or thinking might cause a scientist to back up and repeat steps at any point during the process. A process like the scientific method that involves such backing up and repeating is called an **iterative process**.



Steps of the Scientific Method

Related Links

- [Scientific Method Handout](#)
- [Free Scientific Method Classroom Poster](#)

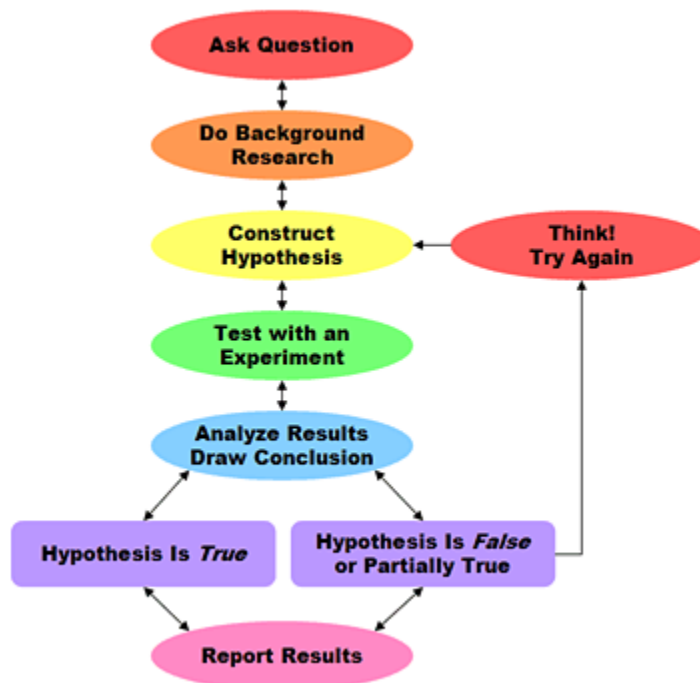
Key Info

- The scientific method is a way to ask and answer scientific questions by making observations and doing experiments.
- The steps of the scientific method are to:
 - **Ask a Question**
 - **Do Background Research**
 - **Construct a Hypothesis**
 - **Test Your Hypothesis by Doing an Experiment**
 - **Analyze Your Data and Draw a Conclusion**
 - **Communicate Your Results**
- It is important for your experiment to be a fair test. A "fair test" occurs when you change only one factor (variable) and keep all other conditions the same.

Overview of the Scientific Method

The scientific method is a process for experimentation that is used to explore observations and answer questions. Scientists use the scientific method to search for **cause and effect** relationships in nature. In other words, they design an experiment so that changes to one item cause something else to vary in a predictable way.

Just as it does for a professional scientist, the scientific method will help you to focus your science fair project question, construct a hypothesis, design, execute, and evaluate your experiment.



Steps of the Scientific Method	Detailed Help for Each Step
<p>Ask a Question: The scientific method starts when you ask a question about something that you observe: How, What, When, Who, Which, Why, or Where?</p> <p>And, in order for the scientific method to answer the question it must be about something that you can measure, preferably with a number.</p>	<p>Your Question</p>
<p>Do Background Research: Rather than starting from scratch in putting together a plan for answering your question, you want to be a savvy scientist using library and Internet research to help you find the best way to do things and insure that you don't repeat mistakes from the past.</p>	<p>Background Research Plan Finding Information Bibliography Research Paper</p>
<p>Construct a Hypothesis: A hypothesis is an educated guess about how things work: "If _____ [<i>I do this</i>] _____, then _____ [<i>this</i>] _____ will happen."</p> <p>You must state your hypothesis in a way that you can easily measure, and of course, your hypothesis should be constructed in a way to help you answer your original question.</p>	<p>Variables Variables for Beginners Hypothesis</p>
<p>Test Your Hypothesis by Doing an Experiment: Your experiment tests whether your hypothesis is true or false. It is important for your experiment to be a fair test. You conduct a fair test by making sure that you change only one factor at a time while keeping all other conditions the same.</p> <p>You should also repeat your experiments several times to make sure that the first results weren't just an accident.</p>	<p>Experimental Procedure Materials List Conducting an Experiment</p>
<p>Analyze Your Data and Draw a Conclusion: Once your experiment is complete, you collect your measurements and analyze them to see if your hypothesis is true or false.</p> <p>Scientists often find that their hypothesis was false, and in such cases they will construct a new hypothesis starting the entire process of the scientific method over again. Even if they find that their hypothesis was true, they may want to test it again in a new way.</p>	<p>Data Analysis & Graphs Conclusions</p>
<p>Communicate Your Results: To complete your science fair project you will communicate your results to others in a final report and/or a display board. Professional scientists do almost exactly the same thing by publishing their final report in a scientific journal or by presenting their results on a poster at a scientific meeting.</p>	<p>Final Report Abstract Display Board Science Fair Judging</p>

Even though we show the scientific method as a series of steps, keep in mind that new information or thinking might cause a scientist to back up and repeat steps at any point during the process. A process like the scientific method that involves such backing up and repeating is called an **iterative process**.

Throughout the process of doing your science fair project, you should keep a journal containing all of your important ideas and information. This journal is called a laboratory notebook.

CREATIONISTS

From Wikipedia, the free encyclopedia

Creationism is the religious belief that humanity, life, the Earth, and the universe were created in their original form by a deity (often the Abrahamic God of Judaism, Christianity and Islam) or deities. In relation to the creation-evolution controversy the term *creationism* is commonly used to refer to religiously motivated rejection of evolution as an explanation of origins.

Such beliefs include young Earth creationism, proponents of which believe that the earth is thousands rather than billions of years old. They typically believe the days in Genesis Chapter 1 are 24 hours in length, while Old Earth creationism accepts geological findings and other methods of dating the earth and believes that these findings do not contradict the Genesis account, but reject evolution. The term *theistic evolution* has been coined to refer to beliefs in creation which are more compatible with the scientific view of evolution and the age of the Earth. Alternately, there are other religious people who support creation, but in terms of allegorical interpretations of Genesis.

Creationism in the West is usually based on creation according to Genesis, and in its broad sense covers a wide range of beliefs and interpretations. Through the 19th century the term most commonly referred to direct creation of individual souls, in contrast to traducianism (Soul from Adam). However, by 1929 in the United States the term became particularly associated with Christian fundamentalist opposition to human evolution and belief in a young Earth. Several U.S. states passed laws against the teaching of evolution in public schools, as upheld in the Scopes Trial. Evolution was omitted entirely from school textbooks in much of the United States until the 1960s. Since then, renewed efforts to introduce teaching creationism in American public schools in the form of flood geology, creation science, and intelligent design have been consistently held to contravene the constitutional separation of Church and State by a succession of legal judgments. The meaning of the term creationism was contested, but by the 1980s it had been co-opted by proponents of creation science and flood geology.

When mainstream scientific research produces conclusions which contradict a creationist interpretation of scripture, the strict creationist approach is either to reject the conclusions of the research,^[4] its underlying scientific theories, and/or its methodology. For this reason, both creation science and intelligent design have been labeled as pseudoscience by the mainstream scientific community. The most notable disputes concern the effects of evolution on the development of living organisms, the idea of common descent, the geologic history of the Earth, the formation of the solar system, and the origin of the universe.

CREATIONIST'S DEFINITION OF THEIR BELIEFS



The Creation Research Society is a professional organization of trained scientists and interested laypersons that are firmly committed to scientific special creation. The Society was organized in 1963 by a committee of ten like-minded scientists, and has grown into an organization with worldwide membership.

The primary functions of the Society are:

- Publication of a quarterly peer-reviewed journal.
- Conducting research to develop and test creation models.
- The provision of research grants and facilities to creation scientists for approved research projects.
- Providing qualified scientists to speak to groups or churches.

Other functions of CRS include maintenance of a comprehensive directory of creationist organizations throughout the world. The CRS also runs a secure online bookstore for ordering books and videos on special creation.

The CRS is independent and unaffiliated with any other organization, religious group or church body. The CRS advocates the concept of special creation (as opposed to evolution), both of the universe and of the earth with its complexity of living forms. Membership in the Society requires agreement with the CRS Statement of Belief. Members of the society include research scientists from various fields of scientific accomplishment who are committed to full belief in the Biblical record of creation and early history.

CRS Statement of Belief

All members must subscribe to the following statement of belief:

1. The *Bible* is the written Word of God, and because it is inspired throughout, all its assertions are historically and scientifically true in the original autographs. To the student of nature this means that the account of origins in *Genesis* is a factual presentation of simple historical truths.
2. All basic types of living things, including man, were made by direct creative acts of God during the Creation Week described in *Genesis*. Whatever biological changes have occurred since Creation Week have accomplished only changes within the original created kinds.
3. The great flood described in *Genesis*, commonly referred to as the Noachian Flood, was an historic event worldwide in its extent and effect.
4. We are an organization of Christian men and women of science who accept Jesus Christ as our Lord and Savior. The account of the special creation of Adam and Eve as one man and one woman and their subsequent fall into sin is the basis for our belief in the necessity of a Savior for all mankind. Therefore, salvation can come only through accepting Jesus Christ as our Savior.

INTELLIGENT DESIGNISTS

Scientists that subscribe to the theory of Irreducible Complexity.

From Wikipedia, the free encyclopedia

Intelligent design is the assertion that "certain features of the universe and of living things are best explained by an intelligent cause, not an undirected process such as natural selection." It is a modern form of the traditional teleological argument for the existence of God that avoids specifying the nature or identity of the designer. The idea was developed by a group of American creationists who reformulated their argument in the creation-evolution controversy to circumvent court rulings that prohibit the teaching of creationism as science. Intelligent design's leading proponents, all of whom are associated with the Discovery Institute, a politically conservative think tank, believe the designer to be the God of Christianity. Advocates of intelligent design argue that it is a scientific theory and seek to fundamentally redefine science to accept supernatural explanations.

The consensus in the scientific community is that intelligent design is not science. The U.S. National Academy of Sciences has stated that "creationism, intelligent design, and other claims of supernatural intervention in the origin of life or of species are not science because they are not testable by the methods of science." The US National Science Teachers Association and the American Association for the Advancement of Science have termed it pseudoscience. Others in the scientific community have concurred, and some have called it junk science.

"Intelligent design" originated in response to the 1987 United States Supreme Court *Edwards v. Aguillard* ruling involving separation of church and state. Its first significant published use was in *Of Pandas and People*, a 1989 textbook intended for high-school biology classes. Several additional books on "intelligent design" were published in the 1990s. By the mid-1990s, intelligent design proponents had begun clustering around the Discovery Institute and more publicly advocating the inclusion of intelligent design in public school curricula. With the Discovery Institute and its Center for Science and Culture serving a central role in planning and funding, the "intelligent design movement" grew increasingly visible in the late 1990s and early 2000s, culminating in the 2005 "Dover trial" which challenged the intended use of intelligent design in public school science classes.^[7]

In *Kitzmiller v. Dover Area School District*, a group of parents of high-school students challenged a public school district requirement for teachers to present intelligent design in biology classes as an alternative "explanation of the origin of life". U.S. District Judge John E. Jones III ruled that intelligent design is not science, that it "cannot uncouple itself from its creationist, and thus religious, antecedents", and that the school district's promotion of it therefore violated the Establishment Clause of the First Amendment to the U.S. Constitution

IS INTELLIGENT DESIGN THE SAME AS CREATIONISM

No. The theory of intelligent design is simply an effort to empirically detect whether the "apparent design" in nature acknowledged by virtually all biologists is genuine design (the product of an intelligent cause) or is simply the product of an undirected process such as natural selection acting on random variations. Creationism typically starts with a religious text and tries to see how the findings of science can be reconciled to it. Intelligent design starts with the empirical evidence of nature and seeks to ascertain what inferences can be drawn from that evidence. Unlike creationism, the scientific theory of intelligent design does not claim that modern biology can identify whether the intelligent cause detected through science is supernatural.

Honest critics of intelligent design acknowledge the difference between intelligent design and creationism. University of Wisconsin historian of science Ronald Numbers is critical of intelligent design, yet according to the Associated Press, he "agrees the creationist label is inaccurate when it comes to the ID [intelligent design] movement." Why, then, do some Darwinists keep trying to conflate intelligent design with creationism? According to Dr. Numbers, it is because they think such claims are "the easiest way to discredit intelligent design." In other words, the charge that intelligent design is "creationism" is a rhetorical strategy on the part of Darwinists who wish to delegitimize design theory without actually addressing the merits of its case.

IS INTELLIGENT DESIGN A SCIENTIFIC THEORY?

Yes. The scientific method is commonly described as a four-step process involving observations, hypothesis, experiments, and conclusion. Intelligent design begins with the observation that intelligent agents produce complex and specified information (CSI). Design theorists hypothesize that if a natural object was designed, it will contain high levels of CSI. Scientists then perform experimental tests upon natural objects to determine if they contain complex and specified information. One easily testable form of CSI is irreducible complexity, which can be discovered by experimentally reverse-engineering biological structures to see if they require all of their parts to function. When ID researchers find irreducible complexity in biology, they conclude that such structures were designed.

Discovery Institute — [Center for Science and Culture](#)

Darwinists

Darwinists subscribe to Darwin's Theory of Evolution which is stated in his theory of Natural Selection.

Natural selection is the process by which favorable heritable traits become more common in successive generations of a population of reproducing organisms, and unfavorable heritable traits become less common. Natural selection is change given time and chance towards a functional advantage.

This theory is supported by various scientists many of which may be identified as Humanists.

Humanist Manifesto I

The Manifesto is a product of many minds. It was designed to represent a developing point of view, not a new creed. The individuals whose signatures appear would, had they been writing individual statements, have stated the propositions in differing terms. The importance of the document is that more than thirty men have come to general agreement on matters of final concern and that these men are undoubtedly representative of a large number who are forging a new philosophy out of the materials of the modern world.

- Raymond B. Bragg (1933)

The time has come for widespread recognition of the radical changes in religious beliefs throughout the modern world. The time is past for mere revision of traditional attitudes. Science and economic change have disrupted the old beliefs. Religions the world over are under the necessity of coming to terms with new conditions created by a vastly increased knowledge and experience. In every field of human activity, the vital movement is now in the direction of a candid and explicit humanism. In order that religious humanism may be better understood we, the undersigned, desire to make certain affirmations which we believe the facts of our contemporary life demonstrate.

There is great danger of a final, and we believe fatal, identification of the word religion with doctrines and methods which have lost their significance and which are powerless to solve the problem of human living in the Twentieth Century. Religions have always been means for realizing the highest values of life. Their end has been accomplished through the interpretation of the total environing situation (theology or world view), the sense of values resulting therefrom (goal or ideal), and the technique (cult), established for realizing the satisfactory life. A change in any of these factors results in alteration of the outward forms of religion. This fact explains the changefulness of religions through the centuries. But through all changes religion itself remains constant in its quest for abiding values, an inseparable feature of human life.

Today man's larger understanding of the universe, his scientific achievements, and deeper appreciation of brotherhood, have created a situation which requires a new statement of the means and purposes of religion. Such a vital, fearless, and frank religion capable of furnishing adequate social goals and personal satisfactions may appear to many people as a complete break with the past. While this age does owe a vast debt to the traditional religions, it is none the less obvious that any religion that can hope to be a synthesizing and dynamic force for today must be shaped for the needs of this age. To establish such a religion is a major necessity of the present. It is a responsibility which rests upon this generation. We therefore affirm the following:

FIRST: Religious humanists regard the universe as self-existing and not created.

SECOND: Humanism believes that man is a part of nature and that he has emerged as a result of a continuous process.

THIRD: Holding an organic view of life, humanists find that the traditional dualism of mind and body must be rejected.

FORTH: Humanism recognizes that man's religious culture and civilization, as clearly depicted by anthropology and history, are the product of a gradual development due to his interaction with his natural environment and with his social heritage. The individual born into a particular culture is largely molded by that culture.

FIFTH: Humanism asserts that the nature of the universe depicted by modern science makes unacceptable any supernatural or cosmic guarantees of human values. Obviously humanism does not deny the possibility of realities as yet undiscovered, but it does insist that the way to determine the existence and value of any and all realities is by means of intelligent inquiry and by the assessment of their relations to human needs. Religion must formulate its hopes and plans in the light of the scientific spirit and method.

SIXTH: We are convinced that the time has passed for theism, deism, modernism, and the several varieties of "new thought".

SEVENTH: Religion consists of those actions, purposes, and experiences which are humanly significant. Nothing human is alien to the religious. It includes labor, art, science, philosophy, love, friendship, recreation--all that is in its degree expressive of intelligently satisfying human living. The distinction between the sacred and the secular can no longer be maintained.

EIGHTH: Religious Humanism considers the complete realization of human personality to be the end of man's life and seeks its development and fulfillment in the here and now. This is the explanation of the humanist's social passion.

NINTH: In the place of the old attitudes involved in worship and prayer the humanist finds his religious emotions expressed in a heightened sense of personal life and in a cooperative effort to promote social well-being.

TENTH: It follows that there will be no uniquely religious emotions and attitudes of the kind hitherto associated with belief in the supernatural.

ELEVENTH: Man will learn to face the crises of life in terms of his knowledge of their naturalness and probability. Reasonable and manly attitudes will be fostered by education and supported by custom. We assume that humanism will take the path of social and mental hygiene and discourage sentimental and unreal hopes and wishful thinking.

TWELFTH: Believing that religion must work increasingly for joy in living, religious humanists aim to foster the creative in man and to encourage achievements that add to the satisfactions of life.

THIRTEENTH: Religious humanism maintains that all associations and institutions exist for the fulfillment of human life. The intelligent evaluation, transformation, control, and direction of such associations and institutions with a view to the enhancement of human life is the purpose and program of humanism. Certainly religious institutions, their ritualistic forms, ecclesiastical methods, and communal activities must be reconstituted as rapidly as experience allows, in order to function effectively in the modern world.

FOURTEENTH: The humanists are firmly convinced that existing acquisitive and profit-motivated society has shown itself to be inadequate and that a radical change in methods, controls, and motives must be instituted. A socialized and cooperative economic order must be established to the end that the equitable distribution of the means of life be possible. The goal of humanism is a free and universal society in which people voluntarily and intelligently cooperate for the common good. Humanists demand a shared life in a shared world.

FIFTEENTH AND LAST: We assert that humanism will: (a) affirm life rather than deny it; (b) seek to elicit the possibilities of life, not flee from them; and (c) endeavor to establish the conditions of a satisfactory life for all, not merely for the few. By this positive morale and intention humanism will be guided, and from this perspective and alignment the techniques and efforts of humanism will flow.

So stand the theses of religious humanism. Though we consider the religious forms and ideas of our fathers no longer adequate, the quest for the good life is still the central task for mankind. Man is at last becoming aware that he alone is responsible for the realization of the world of his dreams, that he has within himself the power for its achievement. He must set intelligence and will to the task.

Harmony of Science and The Scripture

Lesson 1 – In the Beginning Video

Introduction:

- Scientific Method _____

- Creationism _____

- Intelligent Design _____

- Humanism _____

Video

Age of the Earth _____

Geology _____

- Plate Tectonics _____
- Super continent _____

- Sedimentary Rock _____

Physics _____

- Atmospheric Physicist - Ice Age _____

- Physicist - Magnetic Reversals/Earths Age _____

Harmony of Science and The Scripture

Lesson 2 – Where Does The Evidence Lead – Parts 1 & 2

Introduction:

- Pajaro Dunes Calif Purpose: _____

- Charles Darwin (1859) _____

- Natural Selection _____

- Origination of Species: _____

Context

Natural Selection Explains: _____

Natural Selection Does Not Explain: _____

- Darwin Says: _____
- Intelligent Design Says: _____

- Complex Biological Systems: _____

Single Cell Bacteria: _____

- Machines: _____

- Bacterial Flagellum _____

- Irreducible Complexity: _____

Harmony of Science and The Scripture

Lesson 3 – Where Does The Evidence Lead – Part 3 and 4 – Molecules and mousetraps

Context:

Single Cell Bacteria: _____

- Irreducible Complexity: _____

- Mouse Trap Example: _____

- Biological Machines: _____

- Flagler Motor (40 parts): _____

- Change must provide functional advantage: _____

- Natural selection only selects for a functional advantage: _____

- Theory of co-option is said to explain how the Flagler motor could occur _____

- Assembly instructions pose a difficult question: _____

- Breakdown of Darwin's theory: _____

- Two questions about life: _____

- Amino Acids and Proteins: _____

Harmony of Science and The Scripture

Matter – Energy - *Information*

Lesson 4 – Where Does The Evidence Lead – Part 5 and 6 – Language of Life

Context (Molecular Biology):

True Science: Observation of the facts – go where the data leads you

Origin of Life: _____

- Natural Process: _____

- Dean Kenyon: Biochemical Predestination _____

- Amino Acids: _____

- Proteins: _____

- How Could Early Proteins have Amino Acids Assemble Themselves: _____

- Role of DNA (ATCG): _____

- Language of Life – Two Choices _____

- Assembly instructions pose a difficult question: _____

- Problem of origin of genetic information itself (DNA): _____

- Transcription's functions and Messenger RNA: _____

- Ribosome and functions of machines: _____
- The Design Inference: _____

Harmony of Science and The Scripture

Romans 1 – People will suppress knowledge

Lesson 5 – **Incredible Creatures that defy Evolution** – Parts 1 thru 5

Presentation By: Dr. Joe Martin

Introduction:

Theory of Evolution: _____

Assumptions of Evolution: _____

Context: Bombardier Beetle

- Makes explosive chemicals problem: _____
- Insulation: Biochemical Predestination _____
- Twin tail tubs: _____
- Multiple explosions: _____
- Punctuated Equilibrium: _____

Context: Bull Giraffe

- Size of Giraffe: _____
- Size of Pump (Heart) _____
- Drinking water Problem: _____
- Problem solved by little spikets (valves): _____
- Last pump uses sponge – what is its function when he raises his head: _____
- Theory of Irreducible Complexity: _____

Context: Woodpecker

- Function of tail feathers and special equipment: _____
- How he gets bug out of tree using tongue: _____
- Why opens eyes when pecking _____

Context: Mound Builder

- Unique Nest: _____
- Lays eggs with special characteristics: _____
- Function of Male vs Female Bird: _____
- Unique way of hatching _____

Harmony of Science and The Scripture

Lesson 6 – **Incredible Creatures that defy Evolution** – Parts 6 thru 12

Context: Chicken Egg

- Why bubbles in egg: _____
- Type of waste in shell _____
- Egg parts and timing: _____
- Function of Membrane: _____
- Grows what type of tooth and on what days (19 & 21) : _____

Context: Beaver

- Engineers things: _____
- His house characteristic: _____
- Eyelids are and nose is: _____
- Fur lined flaps are for): _____
- How he swims: _____

Context: Duck Bill Platypus

- All of its functions: _____
- What he eats and how does he find scrimp: _____
- What experiment was conducted: _____

Context: Zipper Spider

- Why is it named a zipper: _____
- Seven kinds of webbing: _____
- Size of spider: _____
- What do they do to catch bug, etc _____
- What does she do with eggs: _____
- What does the little spider babies do: _____

Context: Gecko Lizards

- How does it walk (magnify 35,000 times): _____
- Different kind of lizard Chuckwalla Lizard: _____
- Defense mechanism: _____
- What factory does he have: _____

Harmony of Science and The Scripture

Romans 1 – People will suppress knowledge

Lesson 7 – **Thousands Not Billions – Radio Isotope Dating Chap 4 - 8**

Presentation By:

Introduction:

Conventional Teachings: _____

1997 Seven Scientists make up a RATE Team: _____

Dr. Larry Vardiman

- Decay Products like lead: _____
- Hour Glass Illustration (Radio Isotope) _____
- Uranium to lead: _____
- Parent Isotopes and Daughter Isotopes: _____
- Rate is change from Parent to Daughter: _____

Dr. Steve Austin

- Assumes no altering of Isotopes have occurred : _____
- Contained known amount _____
- Decay rate constant: _____
- RATE Team results Grand Canyon: _____
- Sills in Grand Canyon: _____
- Characteristics of Sills for isotope dating: _____

Dr. Andrew Snelling

- Isotope pairs do not degrade at same rate: _____
 - Potassium-argon isochron age of 516 million years
 - Samarium-neodymium isochron age of 1,655 million years
 - Rubidium-strontium isochron age of 1,111 million years or 1,240 million years
 - Lead-lead isochron age of 1,883 million years

Dr. Russ Humphreys

- Uranium atoms not stable _____
- Helium atoms leaks out of zircons: _____
- Helium leak age shows earth is very young: _____
 - Uranium to lead
 - Helium leak dateing
- Helium is most accurate : _____

Harmony of Science and The Scripture

Lesson 8 – Thousands Not Billions – Radio Isotope Dating Chap 9 - 16

Dr. Andrew Snelling (Geologist)

- Polonium Halo and Uranium Halo: _____
- Zircon crystals and alpha particles: _____
- Uranium Halos are found (where): _____
- Uranium decays to Radium to Radon to Polonium: _____
- Research suggests two things (which are): _____
- _____
- Fission tracks are : _____
- Volcanic ash pits (Morrison- Peach Sprints Tuff) _____
- Three indicators:
 1. Dramatic disagreement between uranium lead dating and helium diffusion: _____
 2. Rapid formation of uranium and polonium radiohalos: _____
 3. Amount of nuclear decay products that match the number of fission tracks: _____

Dr. Eugene Chaffin (Nuclear Physicist)

- Isotope pairs do not degrade at same rate: _____
- Nuclear Force-Nuclear Range: _____
- Change can be 100 million strong: _____

Dr. John Baumgardner (Geophysicist)

- Long age ratio isotopes vs short range (carbon 14): _____
- Radio Carbon Dating used for: _____
- High Energy Protons-Neutrons continuously produce Carbon 14: _____
- Plants and Animals vs C14: _____
- Carbon 14 in Coal-big issue is: _____
- Carbon 14 is only good to 100,000 years: _____
- Department of Energy Findings are: _____
- Carbon 14 in diamonds means: _____

Dr. Steven Boyd (Hebraist – Hebrew Scholar)

- Myth (Poetry) vs Narrative (wrong) Narrative (Truth): _____
- Poetic Passages vs Narrative Passages: _____
- Finite Verbs vs (Preterites): _____
- Genesis 1:1 to 23 is: _____

Harmony of Science and The Scripture

Lesson 9 – The Privileged Planet Chap 1 - 6

Introduction

- Voyager 1 and 2 : _____
- Earth view 4 billion miles away-Pin point of light: _____

The Search For Purpose in the Universe

- Greek Philosophers Aristotle and Tolomy: _____
- Nicholas Copernicus 1543: _____
- Copernican Principal-Earth no preferred place: _____
- Principle of Mediocrity Earth -location and status: _____
- Carl Sagan : _____
- Edwin Hubble-Mt Wilson Observatory-Millions of Galaxy's: _____
- Robert Jastrow-Director of Mt Wilson: _____
- Milky Way Galaxy 100 Billion Stars: _____
- SETI - 1960 – Seth Shostak: _____
- Radio Telescopes & 10,000 Billion-Billion Star Systems in Universe: _____

Astrobiologist-Guillermo Gonzalez:

- Astrobiology: _____

Celestial Conditions Needed For Carbon Based Life:

- Carbon based life Needs Water: _____
- Habitable zone requirements: _____
- Terrestrial Planet: _____
- Oxygen/Nitrogen Atmosphere: _____
- Large Moon for Earth: _____
- Sun – Type of Star: _____
- Planets Rotation: _____
- **Currently 20 Factors** needed to sustain life: Location, Distance, Habitable Zone, Protected by Giant Planets, Correct type of star, Large Moon, Terrestrial Planet, Plate Tectonics, Magnetic Field, Oxygen-Rich Atmosphere and Liquid Water are some of the 20 factors; however, the list is growing.
- Probability of all factors happening at once = 10^{-15} or 1000 Trillionth: _____
- Rare Earth Publication: _____
- Is there any way we can tell the earth did not come by chance and time? _____

Harmony of Science and The Scripture

Lesson 10 – The Privileged Planet Chap 7 - 12

Astrobiologist-Guillermo Gonzalez:

- Eclipse 10-24-1995 Northern India : _____
- Sun 400 times bigger than moon & 400 times away: _____
- Rare alignment of sun, moon and earth: _____
- Effects of Gravitational Pull of Moon on Earth: _____
- Earth's Distance from Sun Permits Liquid Water and Oxygen: _____
- Astronomy and Geophysics Journal-Wonderful Eclipses: _____
- Flash Spectrum Appears at Total Eclipse: _____
- Sun's Chromo Sphere has Helium: _____
- Sun's Chromo Sphere Opened up the Field of Star Astrophysics: _____
- In May 19, 1919 Author Edington Verified Einstein's Theory: _____
- Gossamer Light of Sun Shows Necessary Factors for Complex Life: _____
- Is the Earth the Best Place for Making Scientific Discovery?: _____
- Correlation of Life and Discovery – Atmosphere of Earth: _____

Solar System Conditions Needed For Carbon Based Life:

- Earth's position in Solar System is Critical: _____
- Conditions of Earth's Atmosphere vs Other Gas Enveloped Planets: _____
- Earth Bombarded by Radiation: _____
- Slim sliver of radiation has wave lengths supporting life (photosynthesis): _____
- Our sun gives this form of radiation that is allowed through by our atmosphere while we can still see through our atmosphere to view the universe: _____

Celestial Conditions Unique For Earth in Universe:

- Earths Location in Galaxy is Unique: _____
- Dangers of being at Core of Milky Way: _____
- Danges of being at Outer Edge of Milky Way: _____
- Earth is in the Galactic Habitable Zone: _____
- Earth Occupies a special place in Galaxy where habitalability is optimized, threats are the minimized and there are enough building blocks to make a habitable Planet

Observers are Able to Understand Many Mysteries of the Galaxy:

- Earth in optimum position to view the Universe? _____
- Fundamental Forces are finely tuned: _____
- Fundamental Forces (laws) are prerequisites to having a universe: _____
- The source of the Universe (God) put observers in a place where its mysteries can be discovered, appreciated and understood!!! _____

Science And System Belief Definitions

ag·nos·tic (ag nās tik):

noun

A person who believes that the human mind cannot know whether there is a God or an ultimate cause, or anything beyond material phenomena,

1. A person who holds that the existence of the ultimate cause, as God, and the essential nature of things are unknown and unknowable, or that human knowledge is limited to experience.
2. A person who denies or doubts the possibility of ultimate knowledge in some area of study.

atheist:

noun

A person who denies or disbelieves the existence of a supreme being or beings.

Theism

From the term theos (Greek for “god”), belief in one God who is personal and worthy of worship, who transcends the world but takes an active interest in it, and who reveals his purpose for human beings through certain individuals, miraculous events, or sacred writings.

Deism

A rationalist religious philosophy that flourished in the 17th and 18th centuries, particularly in England. Generally, Deists held that a certain kind of religious knowledge (sometimes called natural religion) is either inherent in each person or accessible through the exercise of reason, but they denied the validity of religious claims based on revelation or on the specific teachings of any church.

Modernism

Modernism describes an array of cultural movements rooted in the changes in Western society in the late nineteenth and early twentieth century. The term covers a series of reforming movements in art, architecture, music, literature and the applied arts which emerged during this period.

Hypothesis:

This is a tentative answer to the question: a testable explanation for what was observed. The scientist tries to explain what caused what was observed.

Inductive reasoning:

Inductive reasoning goes from a set of specific observations to general conclusions: I observed cells in x, y, and z organisms, therefore all animals have cells.

Deductive reasoning:

Deductive reasoning flows from general to specific. From general premises, a scientist would extrapolate to specific results: if all organisms have cells and humans are organisms, then humans should have cells. This is a prediction about a specific case based on the general premises.

Prediction:

A prediction is the expected results if the hypothesis and other underlying assumptions and principles are true and an experiment is done to test that hypothesis. For example, in physics if Newton's Theory of Motion is true and certain "unexplained" measurements and calculations pointing to the possibility of another planet are correct, then if I point my telescope to the specific position that I can calculate mathematically, I should be able to discover/observe that new planet. Indeed, that is the way in which Neptune was discovered in 1846.

Theory:

A theory is a generalization based on many observations and experiments; a well-tested, verified hypothesis that fits existing data and explains how processes or events are thought to occur. It is a basis for predicting future events or discoveries. Theories may be modified as new information is gained. This definition of a theory is in sharp contrast to colloquial usage, where people say something is "just a theory," thereby intending to imply a great deal of uncertainty.