PRESENTATION TO THE STANDARDS COMMITTEE of the Ohio State Board of Education

January 13, 2001

INTRODUCTION

I would particularly like to thank Bob Bowers, Joe Roman, Tom Mclain and President Sheets for the invitation to speak about an issue that is important not only to the children of Ohio, but all children. The issue is what should the State tell our children about where they come from. What should the State tell them about their origins.

I was trained to be a geologist and wound up as a lawyer. I have practiced corporate finance and business litigation for 33 years. About 20 years ago I became interested in Origins science while studying the complexity of DNA.

What qualifies a lawyer to talk about origins science? Lawyers are qualified because the key issues do not involve issues of fact. They involve issues of logic, issues of evidence and procedure and whether the rules, when applied by the State are consistent with the speech and establishment clauses of the constitution. These are issues that lawyers are particularly qualified to speak to.

What really pricked my interest was learning that science essentially abandons the scientific method when it deals with origins science. The effect of modern origins science is to imbue a belief in naturalism. This has led our government into a practice that has the effect of indoctrinating our children and culture in Naturalism. I happen to think that is somewhat problematic. That is why I am here today. To talk about State sponsored naturalism.

What is Naturalism? Naturalism is the DOCTRINE that all phenomena result only from natural processes and not by design. According to a naturalistic world view we are mere occurrences that just happen without purpose. We are not designs that have been designed for a purpose.

The point is illustrated in the brochure that you should have before you. Presently Naturalism censors the design hypothesis. The censorship serves to protect evolution from criticism. Evolution winds up being supported by a philosophy rather than the scientific method. Our goal is to see that origins science is conducted objectively. To do that we need to remove the naturalistic assumption and allow the two hypotheses to compete on a level playing field.

With that brief introduction lets go to the SUBJECT OF MY TALK - WHAT SHOULD OHIO, TELL CHILDREN ABOUT THEIR ORIGINS.

In my way of thinking ORIGINS SCIENCE is the most important SUBJECT that Ohio

public schools will teach to children. Origins Science Asks the question - What causes the origin and diversity of life.- where did we come from. In my opinion this is the most important question we can ask. The question is important because its answer materially impacts the answers to other fundamental questions such as "Why am I here? What is the meaning and purpose of life." If we are just occurrences that result from random and undirected natural processes then we have no inherent purpose. However, if we are the product of design then we have an inherent purpose since all designs have a purpose.

All biology textbooks and the proposed Ohio science standards choose to address this fundamental question. Where do we come from? So the question becomes, what should we tell our kids about it? What information should the State of Ohio decide to give our children about the most important issue in their lives?

THERE ARE ESSENTIALLY ONLY TWO SCIENTIFIC HYPOTHESES ABOUT OUR ORIGINS. The Naturalistic and the Design Hypothesis.

The Naturalistic Hypothesis proposes that all phenomena, including life and its diversity result only from the operation of the laws of physics and chemistry and chance. In short it holds that we derive only from undirected and purposeless natural processes - we are merely occurrences that just happen.

The Naturalistic Hypothesis is predicated on two sub-hypotheses. Chemical Evolution and Darwinian Evolution.

Chemical evolution argues that life arose through some form of chemical evolution. The evidence for this thesis is practically non-existent and there is no coherent theory about how life arose from inanimate matter through an undirected chemical process.

Darwinian evolution attempts to explain the diversity of life once life has somehow arisen via the unexplained process of chemical evolution. Thus, Darwinian evolution assumes as a starting point that the unsupported hypothesis of chemical evolution is true. Darwinian evolution argues that cellular complexity then increases as random variations within replicating populations are filtered or "naturally selected" by random environmental pressures. It is then postulated that over billions of years the gradual filtration/natural selection of these increases in complexity are sufficient to produce all of the diversity of life. Although there is evidence that supports the thesis that natural selection/filtration works at some biological levels, most of the evidence for macro evolution is in fact consistent with the competing design hypothesis. Hence, when tested against that hypothesis, the evidence for Darwinian evolution remains unconvincing at best. Stated another way, Darwinian evolution yields a satisfactory answer only so long as the competing hypothesis is ignored.

All biology textbooks and proposed draft of Ohio Science Standards propose to teach Ohio Children only the Naturalistic Hypothesis.

THE SCIENTIFIC HYPOTHESIS THAT COMPETES WITH THE NATURALISTIC

HYPOTHESIS IS THE DESIGN HYPOTHESIS.

The Design Hypothesis holds that natural processes alone are not sufficient to produce the kind of complexity we see in life. This hypotheses suggests that a mind or some form of intelligence is necessary to produce life and its diversity.

The design hypothesis is supported by an abundance of scientific evidence and does not derive its authority from any religious text..

1 We intuitively infer design when we observe the awesome complexity of the living information processing systems that comprise life. When we look into the black box of the cell we see a biological language, input devices, application programs, information processors, output devices, and systems designed to collect and process energy, make decisions and direct the construction, maintenance and operation of cellular machines and systems. DNA is a blue print that has a semantic or meaningful characteristic found in any writing produced by a mind. That semantic characteristic has not been explained by Non-natural machines and information natural law and chance. processing systems are the kinds of effects that are produced only by human minds. Hence, analogy leads to a reasonable inference that intelligence may also be the cause of similar biological machines and information processing systems.

The fact that living systems appear to be designed - appear to be the product of a mind - is acknowledged by Evolutionary biologists. Their claim is that the apparent design we see in living systems is merely an illusion. They claim that the pattern is not really a design, but is merely an occurrence produced by the mindless undirected process of natural selection.

- The problem with the claim of illusion is that it tends to be ruled out when we apply design detection methodology used in many recognized scientific disciplines such as cryptanalyis, archeology, forensic sciences and even scientific searches for extraterrestrial intelligence. Assuming we get a pattern from outer space how do we know it comes from an intelligent source. Well we use design detection methodology. If you apply these scientific design detection methodologies to the patterns we see in living systems, design becomes not only a viable possibility, it arguably becomes the "best explanation."
- 3 The fossil record is in many respects more consistent with the DH then the NH. It shows sharp bursts of increased complexity and long periods of stasis rather than a gradual progression of complexity as predicted by Darwinian evolution..

- 4 Physicists, chemists and cosmologists are finding that the fundamental constants necessary for life are fine tunned to the extent of near statistical impossibility.
- 5. There is no coherent naturalistic explanation for the origin of life, much less any experimental production of it.
- 6. There is no working model to show how NS can produce irreducibly complex living systems. The only known cause for such complexity is intelligence the workings of a mind.

All of this evidence is evidence that is based on scientific investigation, scientific observation, and scientific analysis per the scientific method. It is evidence that can only be sytematically investigated, observed and analyzed by scientists. It takes biochemists, geologists, paleontologists, mathematicians, statisticians, biologists, cosmologists, physicists and chmists to study the evidence of design. It is not a subject for study by philosophers and theologians. If science will not allow its members to examine the evidence it will be assigned to an intellectual black hole.

THIS BEING THE STATE OF THE EVIDENCE, THE QUESTION BECOMES WHAT INFORMATION SHOULD OHIO GIVE ITS Children about where they come from?

To answer this question lets assume a HYPOTHETICAL situation.

Lets assume that I am a science teacher that is about to enter a science class room to discuss the origin and diversity of life - were we come from. I come to you as the Ohio State Board of Education and ask you what you are going to allow me to do. In my right hand I have a standard biology text book. This book gives only a naturalistic explanation for the origin of life and its diversity. It does not even mention the design hypothesis or the evidence that supports that hypothesis. It is effectively designed to imbue students with a belief in Naturalsim.

In my left hand I have evidence that supports the competing design hypothesis - this is the kind of evidence that I have just discussed.

By the way, this evidence is not "creation science" as defined by the courts. It does not lead to a young earth, a world wide flood or any other religious text or religious account about the origin of life. It derives its authority solely from investigation, observation and analysis per the scientific method.

Although the evidence of design is scientifically derived, it clearly has religious implications. But that is also true of the naturalistic hypothesis. Any answer to the question - where do we come from has religious implications - either positive or negative. Design positively impacts theism - naturalism negatively impacts it.

So when we show evidence that supports the design hypothesis we show evidence

that supports theistic belief. When we show the evidence that supports the Naturalistic Hypothesis we show evidence that contradicts the design hypothesis and that inhibits theistic beliefs. That evidence supports atheism and agnosticism.

So the question is, can I go into the science class with both hands full - can I tell the kids that there are two opposing views about where they come from?

The reason I am here today is the THE PRESENT DRAFT of Ohio science standards contemplate that we will show the kids only the evidence in the right hand - the evidence that inhibits theism. Indeed the standards are being written so that not only is naturalism the only given answer, they are being written so that the Design hypothesis will not even be mentioned - the Kids won't even be told about the existence of the hypothesis and the fact that credentialed scientists have identified evidence that tends to confirm it.

The Draft of the standards proposes that I take the evidence in my left hand and put it behind my back. So when I go into the Room I do this: [].

Do you see the problem?

DR ROBERT LATTIMER, A PHYSICAL CHEMIST AND A MEMBER OF THE OHIO SCIENCE WRITING TEAM HAS SUBMITTED PROPOSED MODIFICATIONS THAT SEEK TO CORRECT THIS SITUATION. His suggestions urge the Department of Education to see that origins science is taught objectively and without religious, philosophic or naturalistic bias. He proposes that Ohio students be shown the evidence that tends to support both hypotheses.

The response to the Lattimer proposals has been disappointing but expected.

Dr. Lattimer's proposals have been rejected out of hand without any consideration of their evidentiary merit.

Why should we expect that result?

We should expect the result because modern science uses a rule called MN/scientific materialism to rule out the design hypothesis by assumption rather than by the scientific method.

As mentioned, Methodolgical Naturalism is an irrebuttable assumption that all phenomena result only from natural processes and not by design. It is a philosophy and not an established fact.

Science claims that a naturalistic assumption is needed to promote objective science. Although this may have some utility in experimental sciences such as physics and chemistry, it destroys objectivity in historical sciences like origins science.

Because the rule says we must irrebuttably assume that things are not designed

the Design Hypothesis is actively censored by the scientific "elite." This is why science textbooks don't mention design. This is why the PBS series on evolution did not discuss the design hypothesis. This is why Dr. Lattimer's suggestions have been rejected out of hand.

NOW I BELIEVE THE QUESTION THE OHIO BOARD ENCOUNTERS AS AN AGENCY OF THE STATE IS WHETHER IT IS GOING TO IMPLEMENT METHODOLOGICAL NATURALISM - IS IT GOING TO USE THE RULE TO CENSOR THE EVIDENCE OF DESIGN WHEN IT CHOSE TO INFORM STUDENTS ABOUT WHERE THEY COME FROM?

Is Ohio going to tell its teachers to go into the class room with the evidence of design behind their backs?

Perhaps an even more important question is whether Ohio is going to tell its teachers to teach using an UNDISCLOSED assumption that life is not designed.

Although the assumption itself is problematic, non disclosure of the assumption is even worse. NONDISCLOSURE OF A MATERIAL ASSUMPTION IS MISLEADING - IT IS INTELLECTUALLY DISHONEST. It would be one thing for me to go into class and say: Kids today we are going to talk about the origin of life and its diversity. There are two ideas about this - design and no design. We are not going to talk about design BECAUSE WE USE AN IRREBUTTABLE ASSUMPTION THAT LIFE IS NOT DESIGNED. We are going to put all the design evidence behind our backs. We are not going to look at it. We are going to only consider the evidence which promotes the naturalistic hypothesis. Because we are not showing you all the evidence you will have an incomplete picture about where we come from.

Of course disclosing the assumption is not what is done in textbooks and that is not what is proposed in the DRAFT Science Standards. Instead, the Draft contemplates that students will not be told about the assumption. The draft encourages teachers to continue to go into the class room - with both hands full. Except that the evidence of design in the left hand is left outside the class room and the left hand is filled with some of the evidence that was in the right hand. This gives the impression that this is the only evidence. What's worse is that the evidence that is shown is characterized as having been tested by the scientific method and that is simply not the case. Do you see how misleading that is?

When you teach origins science using a critically undisclosed assumption, you are doing nothing more than indoctrinating Ohio youth in a belief in Naturalism. So the question you have to ask yourselves, should Ohio use the Rule in Origins Science? Should Ohio censor the design hypothesis?

I THINK YOU HAVE TO PUT ASIDE THE RULE FOR A COUPLE OF REASONS.

FIRST, CENSORING THE ONLY COMPETING HYPOTHESIS IS SIMPLY NOT

CONSISTENT WITH GOOD SCIENCE OR THE SCIENTIFIC METHOD.

Origins science is a historical science that seeks to explain the cause of past events. The explanation of what caused a singular past event occurring millions of years ago can not be tested by experiment. How, then does one test a historical hypothesis that can not be tested by experiment. Essentially the only way to test the hypothesis is to rule out all reasonable competing hypotheses. When you decide to censor the only competing hypothesis, then you essentially exempt the protected hypothesis - evolution - from testing. It essentially ceases to have any scientific validity. An example would be an arson investigation. What if we assumed that all fires result only from natural causes and not by design. Would the explanations of arson investigators ever be credible? One must abandon the Rule in origins science so that the naturalistic hypothesis can be tested by the design hypothesis and vice versa. If you use the rule and teach evolution then you are not teaching science - you are simply indoctrinating students in naturalism.

STATE USE OF THE RULE SHOULD ALSO BE ABANDONED FOR CONSTITUTIONAL REASONS.

A constitutional issue arises when the State decides to teach origins science. The reason is that Origins science unavoidably takes students into a religious arena. You can not ask the question "where do we come from" without positively or negatively impacting religion. One answer supports theism. The other answer withdraws that support and promotes agnosticism and atheism.

Accordingly, when a State decides to teach origins science, it is engaged in an activity that "touches" religion.

The Supreme Court has held that when a state chooses to engage in a practice that "touches" religion the practice must satisfy three criteria.

- 1. The practice must have a secular purpose
- 2. The practice must not advance nor inhibit religion in its principal or primary effect
- 3. The practice must not foster an excessive entanglement of the state in religion.

The question then becomes, when the State decides to enter this religious arena can it choose to use a practice - MN - to censor the design hypothesis? Can it choose to simply tell teachers to hide the evidence of design.

I think not. Essentially there is no secular purpose for using MN in origins science. To the contrary, the effect of the rule is to violate the scientific method. The only stated purpose of MN is to keep the supernatural out of science. That is not a secular purpose.

I have an offer of \$20 to anyone who can show me a secular purpose for the use of the Rule in OS.

Perhaps a more clear violation of the establishment clause is the fact that the primary

effect of use of the rule in origins science is to inhibit religion - theistic belief. In Epperson v Arkansas the Supreme Court ruled as unconstitutional a statute that censored a hypothesis about the origin of life. In so doing the Court said the state must be neutral toowards religion.

"Government in our democracy, state and nation, must be neutral in matters of religious theory, doctrine, and practice. It may not be hostile to any religion or to the advocacy of no-religion; and it may not aid, or foster or promote one religion or religious theory against another or even against the militant opposite. The First Amendment mandates government neutrality between religion and religion, and between religion and nonreligion.

So if you tell Ohio teachers to go hide the evidence of design when I enter the class room are you causing the state to be Neutral or are you causing it to imbue Ohioans in a belief in Naturalism - non religion?

I think you will be involved in unconstituional indoctrination.

My conclusion is that MN is not consistent with good science, logic or the law.

I think MN also conflicts with the speech clause of the constitution. That issue is discussed in more detail in Teaching Origins Science. Copies of this will be furnished to each of you after our discussion this evening.

Finally, I would like to point out that the concept of objective origins science is consistent with recent public school legislation signed by President Bush on Jan 8. You have been furnished a two page hand out that discusses the legislation. It states that good science education will prepare students to "distinguish the data and testable theories of science from religious or philosophic claims that are made in the name of science. Where topics are taught that may generate controversy (such as biological evolution), the curriculum should help students to understand the full range of scintific view that exist, why such topics may generate controversy and how scientific discoveries can profoundly affect society."

Thus, the Ohio Board is in a unique position. If it follows the Santorum amendment and the Lattimer proposals it can be on the cutting edge of new science standards that will enhance the effectiveness of origins science and insure that it is conducted objectively and consistent with logic, good science, and the law.

I have some suggestions on how you might implement objective origins science. However, I believe I will leave those to the question and answer period.

Thanks again for listening.