

Kansas Citizens for Science presents

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# What's the Matter with Kansas' Science Standards? and Why You Should Care.

Jack Krebs

President, Kansas Citizens for Science

Member, state science standards writing committee

Assistant to Pedro Irigonegaray at the 2005 "Science Hearings"

Public school educator for 30 years

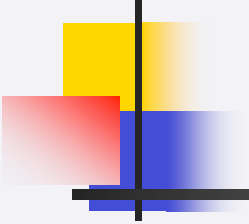
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# Outline

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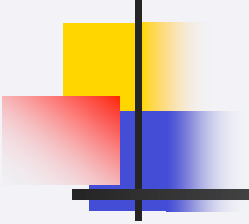
- Presentation
  - The current situation
  - Overview - what is the matter with the science standards
  - The Intelligent Design movement - “overthrowing materialism”
  - The real problem, by John Calvert
  - The nature of science
  - Common descent
  - The standards DO include Intelligent Design
  - Conclusions about Intelligent Design
  - “Unguided” evolution
  - Intelligent Design rejects mainstream belief in God
  - A few other topics
  - Why You Should Care.
  
- Discussion session



## Science standards: what are they?

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- Science standards outline the core, fundamental mainstream scientific knowledge that is accepted worldwide.
- Standards are are not mandatory. They are guidelines for districts to use as they wish.
- Standards don't prohibit anything. They are a framework to which local districts and teachers add lots of additional material.



# The writing committee has written excellent Recommended Standards

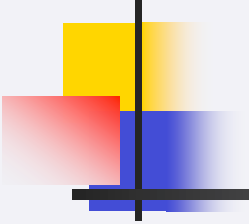
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The committee

- Started work in June, 2004
- Rejected the Intelligent Design Minority proposals by an average 2:1 vote
- Submitted Draft 2 in March, 2005
- Had our draft rejected by the state Board
- Refused to participate in the 2005 “Science Hearings”
- The Board accepted the Intelligent Design Minority proposals in August, 2005
- Met privately and finished our Recommended standards, January, 2006

The Recommended Standards would be ranked as A standards by the Fordham Foundation if they were adopted.

KCFS wrote all superintendents in Kansas suggesting they adopt the Recommended standards, May 2006



The Board standards have been thoroughly rejected by virtually all science organizations

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The Board standards

- Got an F from the Fordham Foundation
- Have been rejected by major science organizations such as NAS, AAAS, NABT, AIBS, and NSTA
- Have been rejected by the Kansas Association of Science Teachers
- Have been rejected by USD 383, Manhattan-Ogden

Why?

What *is* the matter with the Board's science standards?



# The important of context and background

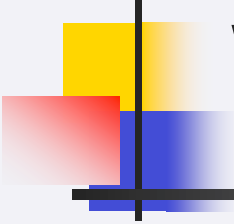
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From Judge Jones in the Kitzmiller (Dover) decision

“The [endorsement] test consists of the reviewing court determining what message a challenged governmental policy or enactment conveys to a reasonable, objective observer who knows the policy's language, origins, and legislative history, as well as the history of the community and the broader social and historical context in which the policy arose.” (Kitzmiller v. Dover, page 15)

- There is substantial evidence for what I am about to discuss.
- I can't show you all of it.
- I will show you enough in places to convince you, I hope, that the evidence supports what I have to say.
  
- Notice how this is similar to how science works, and how good science teaching works.

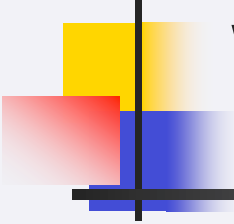
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# What *is* the matter with the Board's science standards? An overview: The Board

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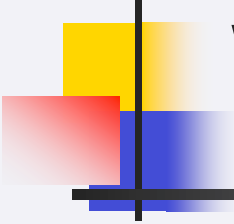
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- Declared that evolution is atheistic (“unguided”)



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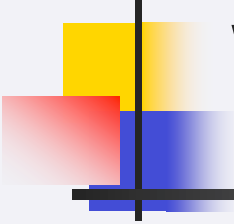
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- Implied that there is real controversy about whether common descent is true. There is no such controversy in mainstream science.
- Inserted a number of creationist arguments against evolution that are not accepted by mainstream science



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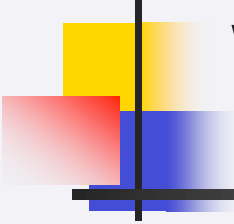
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- Inserted statements that imply that life could not have arisen by natural causes
- Inserted the Intelligent Design concept of “irreducible complexity”



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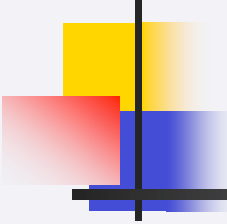


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- Inserted the Intelligent Design concept of “irreducible complexity”
  
- Inserted statements that imply that “historical sciences” about the past are inferior to science that can be done in a laboratory
  
- Stated that students should learn about Intelligent Design, and that
- Information about Intelligent Design should be in the standards



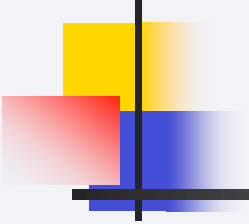
## What *is* the matter with the Board's science standards? The Intelligent Design Strategy

A two-part plan:

- Open the door to supernatural causes
- Cast doubt on whether evolution has happened
- Therefore, conclude “design” (aka “supernatural creation”)

Judge Jones in the Dover (Kitzmiller) decision said this about this plan:

- ID violates the centuries-old ground rules of science by invoking and permitting supernatural causation;
- the argument of irreducible complexity, central to ID, employs the same flawed and illogical **contrived dualism** that doomed creation science; and
- ID's negative attacks on evolution have been refuted by the scientific community.



## What **else** is the matter with the Board's standards? The Board ignores established processes.

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- Allowed a Minority of the writing committee to report directly to the Board, even after the Minority proposals were rejected by the committee
- Allowed John Calvert to function as “counsel and spokesperson” for the Minority group even though he was not a part of the committee
- Held the infamous “Science Hearings” in May 2005, which featured a contingent of Intelligent Design advocates in order to give the Board a façade of legitimacy
- Rejected the proposal of the committee they had appointed
- Recently published a Summary of Changes pamphlet that supports the Intelligent Design advocates claim that Intelligent Design is not in the standards



# The Intelligent Design movement

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The “Intelligent Design” movement is led by the Seattle-based Discovery Institute.

The Intelligent Design network (IDnet), led by John Calvert, has been the leader in developing the Board standards.

The state Board conservatives are all or almost all young-earth creationists, but they have supported the Intelligent Design strategy.



# The Intelligent Design movement

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- Their goal is to “overthrow materialism” and atheism.
- They believe that society has suffered “devastating cultural consequences” from adopting materialism.
- They believe that science is the cause of this decay into materialism because science seeks only natural explanations.
- Science is therefore atheistic.
- They believe that the theory of evolution implies that humans have no spiritual nature, no moral purpose, and no intrinsic meaning.



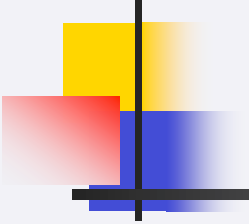
# The Wedge Strategy

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from the Wedge Strategy document, a 1996 Discovery Institute fundraising document :

“The cultural consequences of this triumph of materialism were devastating. Materialists denied the existence of objective moral standards, ... undermined personal responsibility by asserting that human thoughts and behaviors are dictated by our biology and environment, ... [and] advocated coercive government programs that falsely promised to create heaven on earth.

**Discovery Institute's Center for the Renewal of Science and Culture seeks nothing less than the overthrow of materialism and its cultural legacies.”**



# So what has happened in Kansas?

How is this being explained by the Intelligent Design advocates?

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A brief presentation by John Calvert,  
from a talk in Wichita, Sunday July 16, 2006

Public schools are “the last exit” to a critical choice about religious belief

There are only two choices:

- humans are designed and have an intrinsic purpose,
- or we are merely materialistic occurrences without intrinsic purpose.

If you accept design, you are on the road to theism - to a belief in God

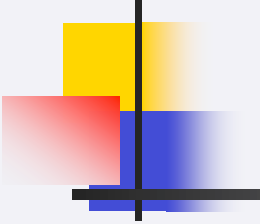
If you accept materialism, you are on the road to atheism

Science leads only to atheism - Science bars the door to design.

The government sides with atheism by teaching science

Note well: many religious people accept science, and are offended by this view

[John Calvert explains the core problem](#)



# So what has happened in Kansas?

## The details: supernatural causes in science

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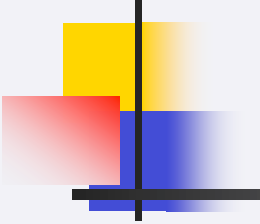
They changed the definition of science

From “Science seeks **natural** explanations”  
to science seeks “**more adequate** explanations” of natural phenomena.

We have seen why:

- Science is atheistic because it seeks only naturalistic explanations
- They want supernatural causes to be included in science

Let’s look at some evidence that this was the intent of the Intelligent Minority:



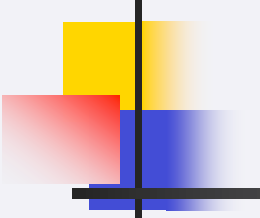
# So what has happened in Kansas?

## The details: supernatural causes in science

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Science is atheistic

“**Methodological naturalism** [science] effectively converts evolution into an irrefutable Ideology .... **Naturalism is the fundamental tenet of non-theistic religions** and belief systems like **Secular Humanism, atheism,** agnosticism and scientism.” (Minority Proposals)



# So what has happened in Kansas?

## The details: supernatural causes in science

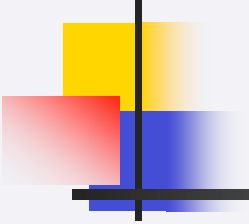
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They want supernatural causes included:

Calvert to Bill Harris: Q. Does an inference of design entail a belief in a supernatural?

Bill Harris: Of course not. Everything you see in this room was designed by an intelligence for a purpose; that's not supernatural. We're talking about-- **where supernatural comes into it is when we're talking about prehistory, origins, where did we come from.**" (<http://www.talkorigins.org/faqs/kansas/kangaroo1.html#p137>)

**“Nontheistic religions** such as secular humanism, atheism, agnosticism and scientism are **quite happy with science that seeks to remove any ‘supernatural’ influence from its explanations.** So the right question is not "Is there a conflict between science and religion?" **Rather, the question is more properly framed as ‘Is there a conflict between 'science' and theistic religions?’”** (John Calvert, <http://www.kansas.com/mld/eagle/news/editorial/11044336.htm>)



# So what has happened in Kansas?

## The details: the effect of teaching science

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**Students, by being taught science, will be lead to the conclusion that they are are merely meaningless accidents without purpose.**

“It is reasonable to expect that this viewpoint discrimination will necessarily have the effect of causing students to reach an uninformed, but “*reasoned*” **decision that they, and all other human beings, are merely natural occurrences, accidents of nature that lack intrinsic purpose.**” (Minority Proposals)

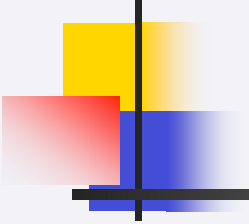
“This can be reasonably expected to **lead one to believe in the naturalistic philosophy that life and its diversity is the result of an unguided, purposeless natural process.**” (Minority Proposals)



# They are wrong about the nature of science

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- Science does not imply materialism.
- Science does not claim that what it studies is all that exists, or that science is the only valid way of seeking knowledge.
- Science is not a dogmatic philosophy about either the ultimate nature of the world or of human beings.
- Seeking natural explanations has proven to be highly successful in building a universally accessible body of knowledge about how the world works.
- Explanations involving non-natural causes have not successfully contributed to science.



# So what has happened in Kansas?

## The details: denying common descent

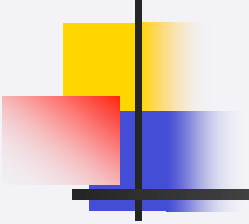
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The Board added:

“The view that living things in all the major kingdoms are modified descendants of a common ancestor ... has been challenged in recent years by: ...”

“Whether microevolution (change within a species) can be extrapolated to explain macroevolutionary changes (such as new complex organs or body plans and new biochemical systems which appear **irreducibly complex**) is controversial.”

Now what do they mean by “challenged” and “controversial”?  
And what do they mean by “irreducibly complex”?



# So what has happened in Kansas?

## The details: denying common descent

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What they mean is that

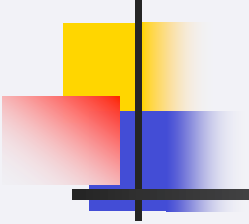
- Common descent is false, and that
- Species have not evolved from other species.

“Irreducibly complex” means “could not have evolved by natural processes alone

Common descent is a fundamental conclusion of modern biology. There is **no controversy** about whether species have evolved through a chain of biological relationships back to the beginning

But the Board and the Intelligent Design advocates deny common descent and they deny the evolution of species.

These “challenges” to common descent and macroevolution are meant to open the door to accepting supernatural creation.



## A story from the 2005 “Science Hearings”

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Pedro Irigonegaray asked most of the witnesses whether they accepted common descent, especially for human beings.

With only two exceptions, those witnesses said they did not accept common descent.

What did they think instead? They answered “design,” or “I don’t know.”

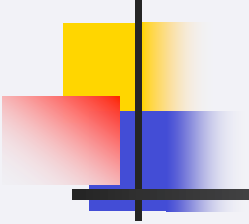
One witness was more candid: he said “special creation.”

**Those responsible for the changes to the Kansas standards are indeed special creationists, both of the old and young-earth variety.**

**The believe that God had created life, and especially human beings, through supernatural means.**

They reject as theological incorrect the common religious belief that God has created through the process of evolution

They reject all views that accept common descent. They reject the core conclusion of evolutionary theory on religious grounds.



# The Board standards DO say that students should learn Intelligent Design

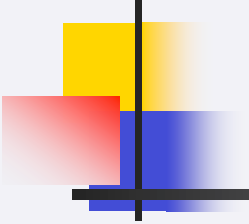
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The state Board and its Intelligent Design supporters say that the standards don't include Intelligent Design. They write in the Rationale statement:

*"We also emphasize that the Science Curriculum Standards do not include Intelligent Design,"*

**– but THEY ARE WRONG.**

**Here's why:**



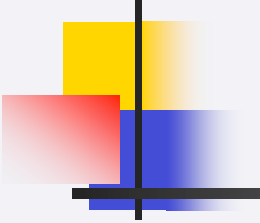
# The Board standards DO say that students should learn Intelligent Design

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The state Board's introductory Rationale statement says that:

1. Students should learn about the full range of scientific views about evolution, including the evidence against it.

*“The curriculum standards call for students ... to learn about areas where **scientists are raising scientific criticisms of the theory**” of evolution. The Board has objectives of helping “students understand **the full range of scientific views that exist on this topic**” and encouraging “students to **study different and opposing scientific evidence,**”*



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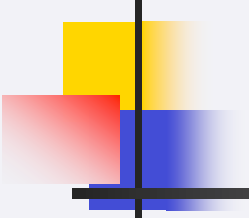
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2. The Board believes “*there are **significant debates** about the evidence ... “*

*They state “We therefore think it is **important and appropriate for students to know about these scientific debates** and for the Science Curriculum Standards to **include information about them.**”*

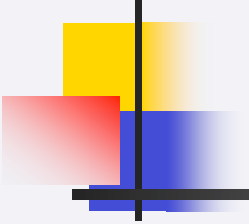


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2. The Board believes “*there are **significant debates** about the evidence ...*” They state “*We therefore think it is **important and appropriate for students to know about these scientific debates** and for the Science Curriculum Standards **to include information about them.***”
3. The Board defines Intelligent Design as “***the scientific disagreement with***” the core claim of evolutionary theory “*that the apparent design of living systems is an illusion.*”

**That is, Intelligent Design is defined as the scientific belief that design is real. That’s what the board says the “debate” is about.**



# The Board standards DO say that students should learn Intelligent Design

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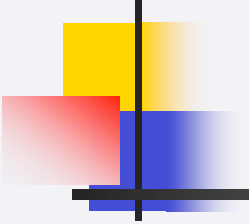
**Conclusion: the Board DOES say:**

**Students should learn about Intelligent Design, and**

**Information about Intelligent Design should be included in the standards.**

**Intelligent Design HAS been included into the state standards.**

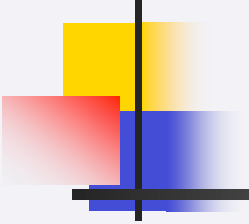
This conclusion is simple logic, based on what the Board has written.



# Conclusion about Intelligent Design

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- There is no theory of Intelligent Design. Intelligent Design has
  - no testable hypotheses
  - no proposed methodologies
  - no research data derived from its claims
- Intelligent Design is a series of flawed and failed anti-evolutionary arguments
- Intelligent Design relies solely on the “contrived dualism” that if evolution is false, Intelligent Design is true.
  
- Intelligent Design advocates don’t do the things scientists do.
- Instead, they write popular books, hold conferences for the general public, and try to influence government policies.
  
- They use public relations methods to try to convince the public there is a controversy because they haven’t convinced the scientific community that there is one.



# So what has happened in Kansas?

## The details: evolution in particular is atheistic

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The Board added this statement:

“Biological evolution postulates an unguided natural process that has no discernable direction or goal.”

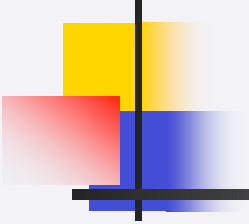
The Intelligent Design advocates have purposely added this false statement that evolution is atheistic.

Why? To support the idea that “design” (supernatural causes) is needed.

It is they who are inserting religious ideas into the standards.

Science cannot investigate the idea of divine guidance.

Scientists know that when they use words like “random”, “chance” and “unguided”, they are making scientific statements, not theological ones.



## Now for the really big problem

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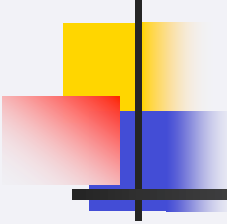
Millions of people who believe in God also accept science, and accept the theory of evolution. (Commonly called “theistic evolutionists”)

Theistic evolutionists believe that God acts in the physical world through natural causes, and that we can study that aspects of God’s creation through science.

Theistic evolutionists reject the “fork in the road model” that if one accepts the naturalistic foundation of science, one is inherently a materialist and an atheist.

So how do the Intelligent Design advocates respond to the theistic evolutionists who accept evolution?

What about those who don’t accept the Wedge doctrine that there are only two choices?



## So how do the Intelligent Design advocates respond to the theistic evolutionists who accept evolution?

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### **They reject and denounce the position of the theistic evolutionists**

John Calvert: “**Evolution demolishes any rational basis for theistic belief.**”

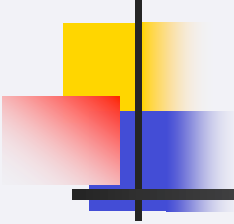
Board president Steve Abrams: “**If you compare evolution and the Bible, you have to decide which one you believe. That’s the bottom line.**”

ID witness Angus Menuge: “it might be some of these people [theistic evolutionists] are **confused.**”

Phillip Johnson, founder of the ID movement: “**Liberal Christians are worse than atheists because they hide their naturalism behind a veneer of religion.**”

Calvert: There are many reasons why scientists who are theists do not publicly deny or take issue with evolution ....

**(e) because they can easily avoid social and political controversy by thinking of evolution as a “tool” used by God to do his work without truly understanding the nature of the evolutionary mechanism and its logical conflicts with their theistic beliefs.**



# Conclusion about this religious issue

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Intelligent Design is **not** about science versus science, as the Intelligent Design movement has no science.

Intelligent Design is **not** about religion versus science, as the Wedge strategy would have us believe.

Intelligent Design argument is about **religion versus religion**:

- Intelligent Design is a narrow sectarian viewpoint that God occasionally intervenes in the world by special creation
- The viewpoint of mainstream Christianity and other religions is
  - that God is and has been continually present in the natural world, and
  - That a limited form of knowledge about His physical world is accessible via science.

The Intelligent Design advocates and the Board standards seek to elevate one theological position (God has intervened in nature via special creation) over another theological position (God acts continuously through natural processes in ways that are beyond our scientific scrutiny,) as well as over many other religious perspectives



# A few other topics

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- Evidence for design is not being censored
  - Teachers can present any material they want within the guidelines of their curriculum and under the supervision of their administrators.
  - Scientists are free to gather evidence and publish papers
  - Having one's conclusions rejected is not censorship.
  - The conclusion of Intelligent Design has not convinced scientists. The evidence has not been censored, but the conclusion has been rejected
- “A theory is a well-substantiated explanation of the natural world that incorporates observations, inferences, laws, well-tested hypotheses and experimental findings to explain a specific aspect of the natural world.”
  - Young-earth creationism is not a theory because it does not comprehensively explain the evidence. It has been rejected.
  - Intelligent Design is not a theory at all.

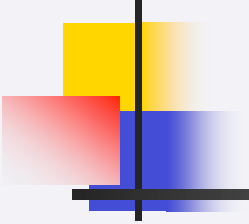


## A few other topics

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The ID advocates have made false educational claims.

- Science teachers teach evolution dogmatically as “fact”, not theory.
- Students are not allowed to raise questions about evolution.
- In general, students are not taught to critically analyze what they are learn.



# Why You Should Care

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Science

Education

Religion

Law

Politics



# Why You Should Care about Science

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Science is a centuries old, worldwide enterprise that has been fantastically successful at its task of investigating how the physical world works.

Our students deserve to learn about the consensus view of what science is, how it works, and what it has found out.

Public school students are not the ones to judge whether new ideas should be added to science.



# Why You Should Care about Education

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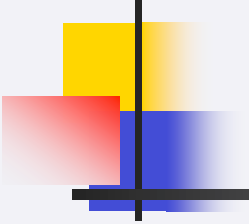
# Why You Should Care about Religion

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# Why You Should Care about the Law

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# Why You Should Care about Politics

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Vote - Democracy depends on our participating by voting

Work for the candidate of your choice - contribute time and money