

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS**

COPE (a/k/a CITIZENS FOR OBJECTIVE
PUBLIC EDUCATION, INC.); and

CARL REIMER; and

MARY ANGELA REIMER; and

BR, a Minor,
BY AND THROUGH HER PARENTS
CARL AND MARY ANGELA REIMER
AS NEXT FRIENDS; and

HR, a Minor,
BY AND THROUGH HER PARENTS
CARL AND MARY ANGELA REIMER
AS NEXT FRIENDS; and

BR, a Minor,
BY AND THROUGH HIS PARENTS
CARL AND MARY ANGELA REIMER
AS NEXT FRIENDS; and

NR, a Minor,
BY AND THROUGH HIS PARENTS
CARL AND MARY ANGELA REIMER
AS NEXT FRIENDS; and

SANDRA NELSON; and

JN, a Minor,
BY AND THROUGH HIS PARENT
SANDRA NELSON AS NEXT FRIEND;
and

LEE MORSS; and

TONI MORSS; and

LM, a Minor,
BY AND THROUGH HER PARENTS
LEE AND TONI MORSS AS NEXT
FRIENDS; and

RM, a Minor,
BY AND THROUGH HIS PARENTS
LEE AND TONI MORSS AS NEXT
FRIENDS; and

Civil Action No. 13-4119-KHV-JPO

AM, a Minor,
BY AND THROUGH HIS PARENTS
LEE AND TONI MORSS AS NEXT
FRIENDS; and

MARK REDDEN; and

ANGELA REDDEN; and

MR, a Minor,
BY AND THROUGH HIS PARENTS
MARK REDDEN AND ANGELA
REDDEN AS NEXT FRIENDS; and

BURKE PELTON; and

KELCEE PELTON; and

BP, a Minor,
BY AND THROUGH HER PARENTS
BURKE PELTON AND KELCEE PELTON
AS NEXT FRIENDS; and

LP, a Minor,
BY AND THROUGH HER PARENTS
BURKE PELTON AND KELCEE PELTON
AS NEXT FRIENDS; and

KP, a Minor,
BY AND THROUGH HER PARENTS
BURKE PELTON AND KELCEE PELTON
AS NEXT FRIENDS; and

MICHAEL LEIBY; and

BRE ANN LEIBY; and

EL, a Minor,
BY AND THROUGH HIS PARENTS
MICHAEL LEIBY AND BRE ANN LIEBY
AS NEXT FRIENDS; and

PL, a Minor,
BY AND THROUGH HIS PARENTS
MICHAEL LEIBY AND BRE ANN LIEBY
AS NEXT FRIENDS; and

ZL, a Minor,
BY AND THROUGH HIS PARENTS
MICHAEL LEIBY AND BRE ANN LIEBY

AS NEXT FRIENDS; and

JASON PELTON; and

ROBIN PELTON; and

CP, a Minor,
BY AND THROUGH HER PARENTS
JASON PELTON AND ROBIN PELTON
AS NEXT FRIENDS; and

SP, a Minor,
BY AND THROUGH HIS PARENTS
JASON PELTON AND ROBIN PELTON
AS NEXT FRIENDS; and

SP, a Minor,
BY AND THROUGH HER PARENTS
JASON PELTON AND ROBIN PELTON
AS NEXT FRIENDS; and

CP, a Minor,
BY AND THROUGH HER PARENTS
JASON PELTON AND ROBIN PELTON
AS NEXT FRIENDS; and

CARL WALSTON; and

MARISEL WALSTON; and

HW, a Minor,
BY AND THROUGH HIS PARENTS
CARL WALSTON AND MARISEL
WALSTON AS NEXT FRIENDS; and

DAVID PRATHER; and

VICTORIA PRATHER,

Plaintiffs.

v.

KANSAS STATE BOARD OF
EDUCATION; and

MEMBERS OF THE KANSAS STATE
BOARD OF EDUCATION, in their
official capacities only, consisting of:

JANET WAUGH; and

STEVE ROBERTS; and
JOHN W. BACON; and
CAROLYN L. WIMS-CAMPBELL; and
SALLY CAUBLE; and
DEENA HORST; and
KENNETH WILLARD; and
KATHY BUSCH; and
JANA SHAVER; and
JIM MCNIECE; and
KANSAS STATE DEPARTMENT OF
EDUCATION; and
DIANE DEBAKER, Commissioner of the
Kansas State Department of Education, in
her official capacity only,

Defendants.

COMPLAINT

(Bold face captions are intended as descriptive of the substantive content
of the related paragraph and need not be addressed by any answer)

I. INTRODUCTION

1. The Plaintiffs, consisting of students, parents and Kansas resident taxpayers, and a representative organization, complain that the adoption by the Defendant State Board of Education on June 11, 2013 of Next Generation Science Standards, dated April 2013 (the Standards; <http://www.nextgenscience.org/>) and the related *Framework for K-12 Science Education: Practices, Crosscutting Concepts and Core Ideas*, (2012; (http://www.nap.edu/catalog.php?record_id=13165#), incorporated therein by reference (the "Framework" with the Framework and Standards referred to herein as the "F&S") will have the effect of causing Kansas public schools to establish and endorse a non-theistic religious

worldview (the "Worldview") in violation of the Establishment, Free Exercise, and Speech Clauses of the First Amendment, and the Equal Protection Clauses of the 14th Amendment.

Article III regarding the Parties begins at paragraph 26
Article IV regarding Venue and Jurisdiction begins at paragraph 48

II. BACKGROUND

2. The F&S take impressionable children, beginning in Kindergarten, into the religious sphere by leading them to ask ultimate religious questions like what is the cause and nature of life and the universe - "where do we come from?"

3. These questions are ultimate religious questions because answers to them profoundly relate the life of man to the world in which he lives. ["By its nature, religion - in the comprehensive sense in which the Constitution uses that word - is an aspect of human thought and action which profoundly relates the life of man to the world in which he lives." (*McGowan v. Maryland*, 366 U.S. 420, 461 (1961) (Frankfurter, J. concurring, with Harlan, J.)]

4. These questions are exceedingly important as ancillary religious questions regarding the purpose of life and how it should be lived ethically and morally depend on whether one relates his life to the world through a creator or considers it to be a mere physical occurrence that ends on death per the laws of entropy.

5. However, instead of seeking to objectively inform children of the actual state of our scientific knowledge about these questions in an age appropriate and religiously neutral manner, the Standards use, without adequately disclosing, an Orthodoxy (defined in paragraphs 8 and 9) and a variety of other deceptive methods to lead impressionable children, beginning in Kindergarten, to answer the questions with only materialistic/atheistic answers.

6. Instead of explaining to students that science has not answered these religious questions, the F&S seek to cause them to accept that controversial materialistic/atheistic answers are valid.

7. The purpose of the indoctrination is to establish the religious Worldview, not to deliver to an age appropriate audience an objective and religiously neutral origins science education that seeks to inform.

8. The orthodoxy, called methodological naturalism or scientific materialism, holds that explanations of the cause and nature of natural phenomena may only use natural, material or mechanistic causes, and must assume that, supernatural and teleological or design conceptions of nature are invalid (the "Orthodoxy").

9. The Orthodoxy is an atheistic faith-based doctrine that has been candidly explained by Richard Lewontin, a prominent geneticist and evolutionary biologist, as follows: "Our willingness to accept scientific claims that are against common sense is the key to an understanding of the real struggle between science and the supernatural. We take the side of science *in spite* of the patent absurdity of some of its constructs, *in spite* of its failure to fulfill many of its extravagant promises of health and life, *in spite* of the tolerance of the scientific community for unsubstantiated just-so stories, because *we have a prior commitment, a commitment to materialism*. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that *we are forced by our a priori adherence to material causes* to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. *Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.*" [Richard Lewontin, *Billions and Billions of Demons* 44 N.Y. REV. OF BOOKS 31 (Jan. 9, 1997) (emphasis added)]

10. Many of the misleading methods used to promote the Worldview are detailed in paragraphs 94 through 122; however, three critical devices are omissions to cause students to analyze and understand (a) that the ultimate questions which students are led to ask identify mysteries that have not been answered by science, (b) that the explanations to be accepted by students are driven by the Orthodoxy and not by an objective weighing of all the "available

evidence," and (c) that many naturally occurring patterns and phenomena contradict the materialistic/atheistic tenet of the Orthodoxy, including (1) the fine-tuning of matter, energy and the physical forces to permit the existence of life and (2) the fact that physics and chemistry do not explain the sequences of nucleotide bases that carry the functional information and genetic programming necessary to the origin of life and much of its diversity.

11. **Concealing the Orthodoxy.** Although omissions mentioned in the preceding paragraph enhance the promotion of the Atheistic Worldview, a more robust tool for that indoctrination is the omission to provide standards that will adequately explain to students the nature, use and effect of use of the Orthodoxy.

12. Instead of candidly disclosing the Orthodoxy as explained by Richard Lewontin, its nature and use is masked by standards which misrepresent the materialistic and atheistic explanations provided as being based on all the "available evidence," and on "open-minded," "objective," "logical" and "honest" investigation per "common rules of evidence," when in fact the explanations violate all of those descriptors due to the use of the Orthodoxy and the lack of consideration given to evidence that is inconsistent with it.

13. **Other methods of Indoctrination.** Other tools of indoctrination and evangelism are detailed in paragraphs 87 through 122 below, but three additional strategies employed by the F&S reflect a purpose to establish in impressionable minds the materialistic/atheistic Worldview rather than to provide an objective and religiously neutral origins science education.

14. **Indoctrinating Impressionable Young Minds.** First, the F&S begin the indoctrination of the materialistic/atheistic Worldview at the age of five or six with young impressionable minds that lack the cognitive or mental development and scientific, mathematical, philosophical and theological sophistication necessary to enable them to critically analyze and question any of the information presented and to reach their own informed decision about what to believe about ultimate questions fundamental to all religions.

15. Because living systems appear to be "brilliantly" and "superbly" "designed for a purpose" by a "sentient" designer and because of religious training and belief acquired from family and the community, young children bring to public schools teleological conceptions of the natural world which conflict with the tenets of the materialistic/atheistic Orthodoxy.

16. Taking advantage of their malleable minds the F&S deem these "conceptions" to be "misconceptions," as they are inconsistent with the Orthodoxy, and then provide strategies for correcting them as explained herein, which include strategies to train teachers to identify and then lead children to correct their so-called "misconceptions" about the natural world.

17. No secular purpose exists for the state seeking to teach impressionable young children about a materialistic/atheistic view of origins before the mind of the child has achieved the necessary cognitive development and has acquired knowledge of the necessary intellectual predicates of math, chemistry, physics, geology, biology, molecular biology, biochemistry, statistics, philosophy and theology.

18. The effect of the F&S in teaching the materialistic/atheistic Worldview to young children before they attain the age and sophistication necessary to make an informed decision about it, is likely to cause them to embrace it, because studies show (a) that children between the age of five and eleven simply assimilate and take, unthinkingly, what authorities have taught to the child and (b) that they generally form their religious worldview by the time they attain the age of 13.

19. The effect of teaching for thirteen years only the materialistic/atheistic side of a religious controversy to an audience that is not age appropriate is religious, not educationally objective, and is indicative of an intent to inculcate and establish that non-theistic religious Worldview in the children.

20. The effect of seeking to establish the Worldview, particularly in the minds of impressionable primary school students, amounts to an excessive governmental entanglement with religion.

21. **Excluding Theists from policies of non-discrimination and "equity."** Second, the F&S implicitly excludes from its policies regarding non-discrimination and equity, children, parents and taxpayers that embrace theistic worldviews, thereby enabling the discriminatory establishment of the non-theistic Worldview under the guise of "science."

22. **Causing the Worldview to be incorporated in all other curriculum.** Third, the F&S use a strategy that seeks to cause the core materialistic/atheistic ideas of the Worldview to be used in and "cohere" with all other curriculum and to cause students to develop "habits of mind" that accept those core ideas.

23. The foregoing strategies have the effect of evangelizing students to accept a religious idea rather than objectively informing children about the actual state of our scientific knowledge concerning the cause and nature of life and the universe.

24. As a consequence, implementation of the foregoing strategies by Kansas will cause it to endorse a particular religious viewpoint, without a valid secular purpose, with a primary effect that is not religiously neutral, and in a manner that will treat atheists and materialists as favored insiders and theists as disfavored outsiders, and otherwise cause the state of Kansas to be excessively entangled with religion.

25. Plaintiffs therefore complain that the implementation of the F&S will infringe on their rights under the First and Fourteenth Amendments.

III. THE PARTIES

26. Plaintiff **Citizens for Objective Public Education** ("COPE") is a nonprofit organization whose purpose is to promote the religious rights of parents, students and taxpayers in public education and whose members include residents of Kansas who are taxpayers and parents that have children that are enrolled in Kansas public schools and children that are expected to be enrolled in Kansas Public Schools.

27. Plaintiffs Carl and Mary Angela Reimer, are residents of Meade, Kansas, are parents of BR, age 5, HR, age 8, BR, age 9 and NR, age 11, who are enrolled in Kansas public

schools, and are Christian parents who seek to instill in their children a belief that life is a creation made for a purpose, that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

28. Plaintiffs BR, HR, BR and NR seek to enforce their rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which rights are being asserted herein on their behalf by their father and mother and next friend, Carl and Mary Angela Reimer.

29. Plaintiff Sandra Nelson, is a resident of Rush Center, Kansas, and is the mother of JN, age 13, who is enrolled in a Kansas public school, and is a Christian parent who seeks to instill in her child a belief that life is a creation made for a purpose that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

30. Plaintiff JN seeks to enforce his rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which right is being asserted herein on his behalf by his mother and next friend, Sandra Nelson.

31. Plaintiffs Lee and Toni Morss, are residents of Burdett, Kansas, are parents of LM, age ten, RM, age 13 and AM, age 14, who are enrolled in Kansas public schools, and are Christian parents who seek to instill in their children a belief that life is a creation made for a purpose that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

32. Plaintiffs LM, RM and AM seek to enforce their rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which rights are being asserted herein on their behalf by their father and mother and next friend, Lee and Toni Morss.

33. Plaintiffs Mark and Angela Redden, are residents of Gypsum, Kansas, are parents of MR, age nine who is enrolled in a Kansas public school, and are Christian parents who seek to

instill in their child a belief that life is a creation made for a purpose that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

34. Plaintiff MR seeks to enforce his rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which rights are being asserted herein on his behalf by his father and mother and next friend, Mark and Angela Redden.

35. Plaintiffs Burke and Kelcee Pelton, are residents of Burdett, Kansas, are parents of BP, age 1 and LP, age 3, who are expected to be enrolled in Kansas public schools, and KP, age 5, who is enrolled in a Kansas public school, and are Christian parents who seek to instill in their children a belief that life is a creation made for a purpose, that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

36. Plaintiffs BP, LP and KP seek to enforce their rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which rights are being asserted herein on their behalf by their father and mother and next friend, Burke and Kelcee Pelton.

37. Plaintiffs Michael and Bre Ann Leiby, are residents of Burdett, Kansas, are parents of EL, age 1 who is expected to be enrolled in Kansas public schools, and PL, age 9, and ZL, age 10, who are enrolled in a Kansas public schools, and are Christian parents who seek to instill in their children a belief that life is a creation made for a purpose, that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

38. Plaintiffs EL, PL and ZL seek to enforce their rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which rights are being asserted herein on their behalf by their father and mother and next friend, Michael and Bre Ann Leiby.

39. Plaintiffs Jason and Robin Pelton, are residents of Burdett, Kansas, are parents of CP, age 7, SP, age 9, CP, age 10 and SP, age 12, who are enrolled in Kansas public schools, and are Christian parents who seek to instill in their children a belief that life is a creation made for a purpose, that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

40. Plaintiffs CP, SP, CP and SP seek to enforce their rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which rights are being asserted herein on their behalf by their father and mother and next friend, Jason and Robin Pelton.

41. Plaintiffs Carl and Marisel Walston, are residents of Lenexa, Kansas, are parents of HW, age 9, who is enrolled in a Kansas public school, and are Christian parents who seek to instill in their son a belief that life is a creation made for a purpose, that does not end on death and is not simply a purposeless occurrence that is the product of an unguided evolutionary process.

42. Plaintiff HW seeks to enforce his rights to not be indoctrinated by Kansas public schools to accept the materialistic/atheistic religious Worldview which the F&S seek to establish, which right is being asserted herein on his behalf by his father and mother and next friend, Carl and Marisel Walston.

43. Plaintiffs David and Victoria Prather, are residents of Lake Quivira, Kansas, who pay state and local income and property taxes which are used in part to fund public schools in Kansas, and who object to the use of such funds by the State of Kansas for the establishment and promotion of a non-theistic religious worldview through its implementation of the F&S.

44. Defendant Kansas State Board of Education (the "Board") is a ten member governmental body, established under Section 2 of Article 6 of the Kansas Constitution to have general supervision of K-12 public schools, educational institutions and educational interests of the state, and has its principal offices at 120 SE 10th Avenue, Topeka, Kansas 66212.

45. The ten elected defendant members of the Board are individual Kansas residents, are joined only in their official capacities and may be served at 120 SE 10th Avenue, Topeka, Kansas 66212.

46. The Defendant Kansas State Department of Education is a governmental entity established by Section 72-7701 of the Kansas Statutes which is under the administrative supervision of a commissioner of education as directed by law and by the state board. The Department has offices at and may be served at 120 SE 10th Avenue, Topeka, Kansas 66212.

47. Diane DeBacker is the Kansas Commissioner of Education appointed by the Board, is joined in her official capacity only and may be served at 120 SE 10th Avenue, Topeka, Kansas 66212.

IV. JURISDICTION AND VENUE

48. This is a civil action whereby Plaintiffs seek: a Declaratory Judgment that the F&S adopted by the defendant Kansas State Board of Education (the “Board”) on June 11, 2013, seeks to establish a program for indoctrinating students in a non-theistic religious Worldview in public schools (the "Policy") and thereby violates the rights of Plaintiffs under the Establishment, Free Exercise and Speech Clauses of the First Amendment and the Equal Protection Clause of the 14th Amendment of the United States Constitution; and permanent injunction against implementation of all or certain portions of the Policy by the Board and defendant Kansas State Department of Education (the “Department”); nominal damages incurred by all Plaintiffs; the costs incurred in this litigation, including attorneys' fees, and such other relief as the Court deems equitable, just and proper.

49. This action arises under the United States Constitution, particularly the First and Fourteenth Amendments; and under federal law, particularly 28 U.S.C. §§ 2201, 2202 and 42 U.S.C. §§ 1983 and 1988.

50. This Court has original jurisdiction over the federal claims by operation of 28 U.S.C. §§ 1331 and 1343.

51. This Court has authority to issue the requested declaratory relief under 28 U.S.C. § 2201.

52. This Court has authority to issue the requested injunctive relief under 28 U.S.C. § 1343(a)(3).

53. This Court is authorized to award the requested damages under 28 U.S.C. § 1343(a)(3).

54. This Court is authorized to award attorneys' fees under 42 U.S.C. § 1988.

55. Venue is proper under 28 U.S.C. § 1391(b) in the District of Kansas because the offices of the Kansas Department of Education and the Kansas State Board of Education are located therein, all members of the Board reside therein, and the events or omissions giving rise to the claims occurred therein.

**V. ALLEGATIONS COMMON TO ALL COUNTS -
THE F&S AND THE WORLDVIEW IT SEEKS TO ESTABLISH AND PROMOTE**

56. The Framework was published by the National Academies of Science in final form in 2012 as a "blueprint" for K-12 science education in the U.S.

57. The Standards were developed pursuant to that Framework and finalized in April 2013.

58. Plaintiff COPE issued analyses objecting to the F&S on June 1, 2012, and January 29, 2013, copies of which are appended as Exhibits A and B (the "COPE Analyses").

59. On May 14, 2013 and June 11, 2013 representatives of COPE urged the Kansas Board to reject the F&S for the reasons stated in the COPE Analyses and invited representatives of the Board to engage in a detailed discussion of concerns that the F&S infringe on the religious rights of parents, children and taxpayers.

60. COPE's invitations were met with silence.

61. During the meeting of the State Board on June 11, 2013, Mr. Willard, a member of the State Board, urged the Board to delay action on the F&S until it had investigated the assertions in the COPE analyses that the F&S were unconstitutional.

62. The Chairman invited discussion on Mr. Willard's proposal for the Board to engage in such due diligence before adoption of the F&S, however, other Board members expressed the view that there was no need to consider those and other objections expressed by Mr. Willard.

63. On June 11, 2013, over the objections of two members of the State Board, the Defendant State Board adopted the Standards and the Framework, which is incorporated therein by reference, without engaging in any due diligence with regard to the issues expressed in the COPE analyses.

64. The F&S seek to cause students to embrace a non-theistic Worldview. As used herein, "worldview" means a religious view that is "an aspect of human thought and action which profoundly relates the life of man to the world in which he lives" (McGowan v. Maryland, *supra*).

65. The F&S seek to establish the Worldview by leading very young children to ask ultimate questions about the cause and nature of life and the universe - *Where do we come from?* - and then using a variety of deceptive devices and methods that will lead them to answer the questions with only materialistic/atheistic explanations about how their lives are related to the world in which they live.

66. The effect of the F&S is to cause the student to ultimately "know" and "understand" that the student is not a design or creation made for a purpose, but rather is just a "natural object" that has emerged from the random interactions of matter, energy and the physical forces via unguided evolutionary processes which are the core tenets of Religious ("secular") Humanism.

67. The F&S engage the child to ask and answer ultimate questions by causing them to observe naturally-occurring patterns and then leading them to explain the cause of the patterns using only mechanistic or materialistic/atheistic causes.

68. The patterns which children are led to examine and ascertain the cause of include the pattern that emerged during the origin of the universe in the "Big Bang," and the patterns consisting of the origin and diversity of life, such that children are led to reconstruct "histories" or genesis accounts of the cosmos and of life on earth using materialistic and atheistic explanations and narratives.

69. As explained by the late Ernst Mayr, an icon of evolutionary biology, origins science differs from traditional experimental sciences in that it relies on the construction of historical narratives rather than laws and experiments to explain the cause of past events: ". . . Darwin introduced historicity into science. Evolutionary biology, in contrast with physics and chemistry, is a historical science – the evolutionist attempts to explain events and processes that have already taken place. *Laws and experiments are inappropriate techniques for the explication of such events and processes. Instead one constructs a historical narrative, consisting of a tentative reconstruction of the particular scenario that led to the events one is trying to explain.*" [Ernst Mayr, *Darwin's Influence on Modern Thought*, SCIENTIFIC AMERICAN, Jul. 2000, at 80 (emphasis added).]

70. Historical sciences use a form of abductive reasoning that seeks to develop an inference to the best of competing alternative explanations based on the weight of all of the available evidence, which method requires that the weight of the evidence both favor or rule in one hypothesis while disfavoring or ruling out the other competing possibilities.

71. Two principal competing evidence-based explanations have existed for thousands of years with respect to the origin of the universe, of life and of the diversity of life, one materialistic and the other teleological.

72. The teleological hypothesis argues that the apparent design that may be observed in many naturally occurring patterns may be real and therefore due to an intelligent cause. It is an evidence-based logical inference derived from patterns that are observed to (a) exhibit function or purpose, (b) consist of sequences or arrangements of elements that are not ordered by any physical or chemical necessity and, (c) cannot be plausibly explained, because of their complexity, by stochastic or random events.

73. Naturally occurring patterns which support the teleological hypothesis include (a) the fine-tuning of the universe for life, (b) the genetic programming necessary to get life started, (c) the genetic code which has been found to exhibit "eerie perfection" which organizes the "messages" in DNA that must be "error-checked," "edited" and then translated into functional proteins, (d) a fossil record that shows large increases in biological information over very short time-spans, such as the Cambrian explosion, (e) the existence of "orphan" genes that lack an apparent common ancestor, (f) human consciousness and free will, and (g) the fact that all living systems exhibit similarities and differences consistent with a "unifying" idea that life may be the result of a common design.

74. The competing materialistic or naturalistic idea is "a theory that expands conceptions drawn from the natural sciences into a worldview and that denies that anything in reality has a supernatural or more than natural significance; specifically: the doctrine that cause-and-effect laws (as of physics and chemistry) are adequate to account for all phenomena and that teleological conceptions of nature are invalid " ("Naturalism" - Merriam Webster's Unabridged Dictionary, 2013).

75. The two competing ideas about the nature of the natural world generate competing religious beliefs.

76. The teleological hypothesis supports (but does not require belief in) traditional theistic religions that claim that life was created for a purpose and that it has a soul that does not end on death.

77. The materialistic/naturalistic hypothesis supports (but does not require belief in) non-theistic religions like Atheism and Religious ("secular") Humanism which deny the supernatural, hold that physical matter is the only reality and the reality through which all being and processes can be explained, that life arises via unguided evolutionary processes driven by physics and chemistry, and that it ends on death.

78. The F&S employ the Orthodoxy called methodological naturalism or scientific materialism described in paragraphs 8 and 9 above.

79. The Orthodoxy has utility as a refutable presumption in a variety of scientific endeavors.

80. When applied to subjective historical origins science as an irrefutable absolute commitment, the Orthodoxy is inconsistent with (a) an objective search for the truth and intersubjectively accessible knowledge, (b) common rules of evidence, (c) accepted methods of testing historical hypotheses using abductive reasoning and (d) objective science that eschews preconceptions that favor a particular theistic or non-theistic religious view.

81. The Orthodoxy when applied to historical origins sciences violates the common rules of evidence and the logic of abductive reasoning by excluding the principal evidence-based competing alternative to materialism - the idea that many naturally occurring patterns may be due to teleological rather than materialistic causes.

82. The effect of the use of the Orthodoxy is that it causes the investigation to close its mind to competing alternatives and evidence that undermine the core materialistic assumption so that the investigation becomes one that employs "tunnel vision" that necessarily leads to only atheistic explanations of the cause and nature of life and the universe.

83. The Orthodoxy is functionally atheistic when used to explain the origin of the universe and of life as it precludes any supernatural or teleological explanation and holds that life may only be explained via unguided evolutionary processes.

84. The F&S employ the Orthodoxy in seeking to educate students about the cause and nature of natural phenomena and naturally occurring patterns, including the origin and nature of life and the universe.

85. Because the F&S use the Orthodoxy, standards that lead children to investigate the cause and nature of naturally occurring patterns such as life and the universe lead them to employ tunnel vision and to explain the patterns as due only to materialistic and functionally atheistic causes.

86. Because the F&S use the Orthodoxy, the Worldview it seeks to promote is materialistic and atheistic and thereby favors, promotes and endorses non-theistic religion over theistic religion.

A. GENERAL METHODS OF INDOCTRINATION

87. The F&S seek to inculcate the Worldview through a variety of deceptive methods, including those listed in paragraphs 1 through 25 above and 88 through 122 below.

88. As explained in paragraphs 1 through 25 above the F&S seek to inculcate the Worldview by teaching one side of a complex and sophisticated scientific and religious controversy to impressionable primary and middle school children who lack the cognitive development, maturity, intellectual sophistication and knowledge necessary to question or critically analyze the information presented to reach an informed decision and simply assimilate and take unthinkingly what their teachers have taught to them.

89. It uses standards that seek to inculcate the materialistic/atheistic explanations as "habits of mind."

90. As set out in paragraph 21 the F&S implicitly exclude from policies of non-discrimination, equity and diversity children being trained by their parents to accept and embrace traditional theistic religious views, thereby placing them in a disfavored class.

91. The F&S create a false dilemma that the "way of knowing" promoted by the Worldview is intellectually honest, objective, open-minded, logical, open to criticism, skeptical

and subject to change, while the Worldview (a) actually lacks those qualities due to use of the Orthodoxy and (b) suggests to students that other "ways of knowing" lack these qualities and should therefore be avoided.

92. The F&S seek to promote the Worldview by causing it to be used in and to "cohere" with all curricula provided by the school, not just science curricula.

93. The F&S employ a number of other devices that tend to indoctrinate rather than objectively inform about the actual state of our scientific knowledge about issues affecting the Worldview, including, without limitation, (a) the misrepresentations and omissions described in paragraphs 94 through 122 below, (b) the omission of explicit, accurate and complete definitions of important terms and concepts through the use of a glossary or otherwise, (c) the use of generalizations about science that are not always applicable, (d) teaching only one side of a controversy, (e) the misleading use of statistics, (f) combining subjects into a single class and ignoring important distinctions, (g) appeals to authority, (h) appeals to consensus, (i) appeals to emotion, (j) generating implications that opposing views are incorrect and not deserving of consideration, and (k) ignoring assumptions and built-in biases.

B. F&S USE OF MISREPRESENTATION AND OMISSION TO ADVANCE THE WORLDVIEW

94. The F&S use misrepresentation of fact and the omission of facts relevant to explanations about the cause and nature of life and the universe as outlined in paragraphs 95 and 122 to inculcate and advance the Worldview.

95. The most critical omission is that the F&S employ the Orthodoxy but do not provide for standards that will inform students about (a) the nature of the Orthodoxy and how its use in origins science affects religious beliefs, (b) the fact that the F&S and the explanations provided have been developed using the Orthodoxy and the tunnel vision it provides, (c) the effects of the use of the Orthodoxy that suppress relevant evidence that casts doubt on the plausibility of the materialistic/atheistic explanations provided, and (d) the purpose of using the

Orthodoxy in seeking to provide to impressionable young minds answers to deeply religious questions.

C. MISREPRESENTATIONS

96. The F&S use misrepresentations to advance the Worldview, including those listed in paragraphs 97 through 108 below.

97. **Misrepresenting the Evidentiary Basis for Materialistic/Atheistic Explanations.** The F&S implicitly represent that unguided evolutionary theory is based on a consideration of all the "available evidence," when F&S use of the Orthodoxy excludes from consideration evidence inconsistent with the Orthodoxy and evidence that supports an evidence-based alternative.

98. The F&S represent that explanations provided by the standards regarding unguided evolutionary processes are based on a use of common rules of evidence, when in fact an Orthodoxy is used that violates common rules of evidence in historical origins science.

99. **Misrepresenting the Nature of "science" promoted by the F&S.** The F&S misrepresent the nature of the kind of "science" promoted by the F&S as "logical, precise, objective, open-minded, logical, skeptical, replicable, and honest and ethical," when the concealed use of the Orthodoxy in origins science violates all of these characteristics with respect to explanations about the cause and nature of life and the universe.

100. **False Dichotomies.** The F&S use a series of false dichotomies that divide all objects, structures, systems and the world into two classes: *natural* objects, systems, structures and the world into one class and *designed* objects, systems structures and the world into the other, with the latter class consisting of objects, structures and systems made by humans.

101. These dichotomies used by the F&S teach that "design" is the attribute that one class has that the other class lacks, such that children are taught that natural objects, systems and structures and the natural world lack the attribute of design.

102. The dichotomies are false because the representation that natural objects, systems, structures and the world lack the attribute of design is (a) based on a questionable assumption and not a conclusive evidential showing, and (b) because much empirical evidence exists that living systems reflect actual design.

103. **False Descriptors.** The F&S use a descriptor that implicitly classifies the natural world as just "material," consistent with the materialistic tenet of the Orthodoxy: "Science Addresses Questions About the Natural and *Material* World....scientists study the *natural and material* world. (2-ESS2-1)" (emphasis added) [NGSS, *Topic Arrangements of the Next Generation Science Standards*, p.15 (April 2013)].

104. The descriptor is false as the representation that the world is just material is (a) based on a questionable assumption and not a conclusive evidential showing and (b) because living systems are driven by functional information and genetic programming which is not material and because human consciousness and other entities have not been shown to be reducible only to the material.

105. The F&S misrepresent to children that changes in living systems are due to a "choice," by teaching that the changes are due to "natural selection."

106. The "natural selection" descriptor is false because the mechanism it describes is one which sorts, not selects or chooses, as the mechanism lacks an actual mind and the capacity to "choose" as it consists merely of the effects of random changing environmental constraints that tend to positively sort or enhance the survival of organisms that happen by chance to be most fit for those constraints.

107. The misrepresentation that this mindless mechanism "selects" is materially misleading because it leads one to believe that a mindless materialistic mechanism has the capacity of a mind that can therefore explain the apparent design of living systems, when it actually does not.

108. The false descriptor conceals from the student the critical question as to whether random mutations coupled with a mindless random sorting process actually has the capacity to generate living systems that appear to have been "brilliantly" and "superbly" designed by a "sentient mind."

D. OMISSIONS

109. The F&S omit to include standards that seek to inform students of facts relevant to the materialistic/atheistic explanations of the cause and nature of natural phenomena, including those described above and in paragraphs 110 through 122 below.

110. **Omitting to explain the impact of origins science on religious belief and the fact that the state may not take a position as to whether a particular view of origins is or is not valid.** The F&S omit to include a standard that will cause students to know and understand (a) that explanations regarding the cause and nature of life and the universe deal with deeply religious issues that can dramatically affect the student's religious belief and religious worldview, (b) that science has not provided definitive answers to the questions, (c) that the state may not pass on the validity of any answer to the questions or take a position as to which is the best of competing explanations, and (d) that science education about these questions is required to be objective so that the effect of instruction is religiously neutral.

111. **Omitting to explain that scientific knowledge does not include knowledge of the cause of certain origins events.** The F&S omit to include a standard that will cause students to know and understand that scientific knowledge does not now and may never include knowledge of the cause of the universe, the cause of the genetic code, the cause of life, the cause of the sequences of bases in DNA necessary to explain life, the cause of large increases in biocomplexity such as that which suddenly occurred during the Cambrian explosion, the cause of orphan genes, the cause of consciousness, and many other mysteries regarding the origin of life and its diversity.

112. **Omitting consideration of the evidence-based alternative.** The F&S omit to include a standard that will cause students to understand that an evidence-based teleological alternative to unguided evolutionary theory exists and that the explanations they are to learn and accept per the F&S exclude consideration of the alternative and the evidence that supports it due to the use of the Orthodoxy.

113. **Omitting consideration of evidence of the teleological alternative.** The F&S fail to provide standards that will inform students about evidence that supports the evidence-based teleological alternative to the materialistic origins narrative, including those set forth in paragraphs 114 through 120 below.

114. **Omitting to explain that the historical explanations used to support the theory of unguided biological evolution have not been adequately tested.** The F&S omit to include a standard that will cause students to know and understand that historical science seeks to test historical narratives or explanations through the use of abductive reasoning that seeks an inference to the best of the competing alternatives by a weighing of all of the available evidence and that the materialistic/atheistic explanations of unguided evolution students are to learn pursuant to the F&S have not been tested through the use of that method as an Orthodoxy is employed that precludes consideration of the evidence-based competing teleological alternative.

115. **Omitting consideration of the fine-tuning of the universe.** The F&S fail to provide standards that will inform students about the fine-tuning of the Universe for life.

116. **Omitting chemical evolution.** The F&S fail to provide standards that will inform students about the state of our scientific knowledge regarding the chemical origin of life and the lack of natural or material cause explanations for the genetic code, and the biological information necessary for replicating life to exist.

117. **Omitting to inform students of critical assumptions and the lack of their evidentiary foundations.** The F&S fail to provide standards that will inform students that biological evolution is an unguided process that depends on the assumption (a) that only material

or mechanistic causes have operated in the natural world when the assumption is essentially faith-based and not consistent with much contrary evidence and (b) that chemical evolution occurred via only material or mechanistic causes when there is little or no evidence that such causes are adequate to explain it.

118. **Omitting to explain that the materialistic/atheistic explanations are not based on a weighing of all the available evidence.** The F&S fail to provide standards that will inform students that the historical narratives that purport to explain biological evolution are not based on a consideration of all the available evidence as use of the Orthodoxy excludes consideration of evidence inconsistent with the materialistic tenets of the Orthodoxy and evidence of the evidence-based teleological alternative it presumes to be invalid.

119. **Omitting to explain that most of the evidence for the core idea of unguided biological evolution is consistent with the disallowed competing alternative.** The F&S fail to provide standards that will inform students that the evidence that supports unguided biological evolution also supports the competing evidence-based alternative and therefore is insufficient to support an inference that unguided biological evolution is the best explanation.

120. **Omitting consideration of evidence that supports the competing teleological alternative.** The F&S fail to provide standards that will inform students about evidence that supports the teleological alternative, including (a) the fact that living systems appear brilliantly and superbly designed, (b) that physics and chemistry do not order the sequences of bases that provide the information and genetic programming that runs life, and (c) that statistical calculations and experiments suggest that stochastic processes are not adequate to explain the information necessary for the origin and existence of life and large increases in biological information, such as that which occurred during the Cambrian Explosion.

121. **Omitting to explain extrapolations used to support the materialistic/atheistic explanation.** The F&S omit to provide standards that distinguish between micro-evolutionary change (small-scale change within a species) and macro-evolutionary change (the generation of

large-scale biological innovations above the level of species), thereby leading students to believe that stochastic processes which do account for certain micro-evolutionary changes are adequate to explain macro-evolutionary changes, although significant scientific controversy exists over the plausibility of that extrapolation.

122. **Omitting to explain the discrimination that exists within the scientific community against those who do not embrace the Orthodoxy.** The F&S fail to provide standards that will inform students that explanations of unguided biological evolution have not been open to the criticism and critique that other scientific explanations have experienced that do not invoke or affect religious beliefs, and that scientists who criticize the explanations provided by the F&S are subject to significant employment and other discrimination within academic and educational communities.

E. PLAINTIFFS' ACTUAL, THREATENED AND REDRESSABLE INJURY TRACEABLE TO THE POLICY

123. **All Plaintiffs**, who are Kansas residents or Kansas taxpayers, are injured by their State's endorsement and promotion of an Orthodoxy that establishes and promotes non-theistic religious beliefs while seeking to suppress competing theistic religious views because it:

- a. causes the state to promote religious beliefs that are inconsistent with the theistic religious beliefs of plaintiffs, thereby depriving them of the right to be free from government that favors one religious view over another;
- b. sends a message that they, being theists, are outsiders within the community and that non-theists and materialists are insiders within the community;
- c. denies them the right to be treated equally with non-theists; and
- d. causes them to pay taxes to fund the state's endorsement of the tenets of non-theistic religions which conflict with their theistic beliefs.

124. **Plaintiffs who are students who attend public schools** are injured by State use of the F&S in a manner calculated to cause them to be indoctrinated into accepting a non-theistic religious Worldview that effectively:

- a. deprives them of the right to choose what to believe about an origins narrative critical to the formation of their worldviews regarding religion, ethics, morals, and other matters of opinion;
- b. imbues them with, rather than educates them about, a concept fundamental to religious belief that also has a major influence on other views they will form regarding ethics, morals, politics, government, and other matters of opinion;
- c. imbues them with a religious belief that is inconsistent with the beliefs their parents have sought to instill in them;
- d. interferes with the free exercise of their religion by imbuing them with a religious belief that is inconsistent with their existing religious beliefs;
- e. discourages questions that imply any criticism of the Orthodoxy;
- f. causes them to lose respect for their parents and advisors who hold views inconsistent with the Orthodoxy; and
- g. causes them to lose respect from their peers who have accepted the Orthodoxy.

125. **Plaintiffs who are parents of students who attend public schools** are injured by State endorsement and promotion of the Orthodoxy that is hostile to theistic religious beliefs and supportive of non-theistic religious beliefs because it:

- a. interferes with their right to direct the religious education of their children.
- b. interferes with their right to direct the development of their children's worldviews regarding ethics, morals, government, politics, and other matters of opinion that are affected by the materialistic orthodoxy;

- c. interferes with their right to freely exercise their theistic religion by causing their children to embrace a materialistic/atheistic Worldview that is inconsistent with that religion; and
- d. causes them to lose the respect of their children for holding views inconsistent with a materialistic Orthodoxy that their children have been indoctrinated to accept.

126. **Members of Plaintiff Citizens for Objective Public Education (“COPE”)** consist of parents, students and taxpayers who are residents of the state of Kansas have suffered actual and threatened injuries of the kind suffered by other plaintiffs herein alleged that are traceable to the F&S and that can be redressed by the relief requested herein. The interests at stake in this complaint are germane to the purposes of COPE, and neither the claim asserted nor the relief requested requires the participation of individual members of COPE in the lawsuit.

VI. CLAIMS AND CAUSES OF ACTION

COUNT 1

(Violation of the Establishment Clause of the First Amendment of the Constitution of the United States)

127. The actions of defendants as set forth in paragraphs 1 through 122 amount to a violation of the Establishment Clause of the First Amendment of the Constitution of the United States and entitle plaintiffs to relief under 42 U.S.C. § 1983 because defendants, acting under color of law, subjected plaintiffs to a deprivation of their rights under the Establishment Clause of the First Amendment of the Constitution of the United States, as applied to the states by the Fourteenth Amendment.

COUNT 2

(Violation of the Free Exercise Clause of the First Amendment of the Constitution of the United States)

128. The actions of defendants as set forth in paragraphs 1 through 122 amount to a deprivation of their rights to freely exercise their religion in violation of the Free Exercise Clause of the First Amendment of the Constitution of the United States and entitle plaintiffs to relief

under 42 U.S.C. § 1983 because defendants, acting under color of law, subjected plaintiffs to a deprivation of their rights under the Free Exercise Clause of the First Amendment of the Constitution of the United States, as applied to the states by the Fourteenth Amendment.

COUNT 3
(Violation of the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States)

129. The actions of defendants as set forth in paragraphs 1 through 122 amount to the establishment of an orthodox answer to ultimate questions that causes Kansas to discriminate against Plaintiff theists who reject the Orthodoxy and in favor of those who hold religious and other beliefs that depend on or are consistent with the Orthodoxy all in violation of the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States and entitle plaintiffs to relief under 42 U.S.C. § 1983 because defendants, acting under color of law, subjected plaintiffs to a deprivation of their rights under the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States, as applied to the states by the Fourteenth Amendment.

COUNT 4
(Violation of the Speech Clause of the First Amendment of the Constitution of the United States)

130. The use of the Orthodoxy to restrict the kinds of explanations permitted in public schools about the natural world infringes on the speech rights of Plaintiffs in violation of the Speech Clause of the First Amendment of the Constitution of the United States and entitle plaintiffs to relief under 42 U.S.C. § 1983 because defendants, acting under color of law, subjected plaintiffs to a deprivation of their rights under the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States, as applied to the states by the Fourteenth Amendment.

VII. PRAYERS FOR RELIEF

WHEREFORE, in light of the foregoing, plaintiffs respectfully request the following:

- a. A declaratory judgment pursuant to 28 U.S.C. §§ 2201 and 2202 and 42 U.S.C. § 1983 declaring that the defendants' adoption and implementation of the F&S violates the Establishment and Free Exercise Clause of the First Amendment as made applicable to the States by the 14th Amendment and the Equal Protection Clause of and 14th Amendment of the Constitution of the United States; and
- b. An injunction pursuant to Fed. R. Civ. P. 65 prohibiting the defendants from implementing the F&S;
- c. In the alternative to the relief requested under the preceding paragraph b. an injunction prohibiting the implementation of those provisions of the F&S that seek to teach about the origin, nature and development of the cosmos and of life on earth (origins science)
 - (1) For grades K-8, and
 - (2) for grades 9 through 12 unless the origins science instruction includes adequate and reasonably complete information about the following matters and is taught objectively so as to produce a religiously neutral effect with respect to theistic and non-theistic religion:
 - (a) An explanation that origins science addresses ultimate religious questions, the answers to which will likely influence the religious beliefs of students;\
 - (b) An explanation that the body of scientific knowledge that exists does not include knowledge of the cause of many naturally occurring origins events, including without limitation, the origin of (i) the universe, (ii) the particular characteristics of matter, energy and the physical forces, (iii) life on earth (iv) the genetic codes, (v) the functional information and genetic programming needed to cause replicating cellular life to exist, (vi) the causes of major increases in

biodiversity such as the numerous body plans that arose during the Cambrian explosion, (vii) orphan genes, and (viii) nonmaterial phenomena such as functional information, and human consciousness, mind, free will, feelings and emotions.

- (c) That there exists conflicting scientific views about the cause of the origins events listed in paragraph (b) ("origins events") that also impact religious views and that students should keep an open mind about these events, subject to religious guidance provided by their parents;
- (d) That teachers may not present one of competing explanations of an origins event as valid or as the best explanation, but rather should seek to merely objectively explain the actual state of our scientific knowledge concerning those events;
- (e) that (i) origins science is primarily an historical rather than experimental science that uses abductive reasoning that seeks an inference to the best of competing evidence-based alternative explanations; (ii) that it is appropriate for students to use this method in seeking to ascertain the cause of origins events; (iii) that it is appropriate and permissible for them to consider the evidence-based teleological alternative to the materialistic/atheistic alternative provided by F&S in seeking to reach an inference to the best explanation; and (iv) that it is up to the student, not the state, to decide which is the best of the competing explanations, subject to parental guidance on the subject.
- (f) With respect to the Orthodoxy, (i) that the origins science explanations provided by most institutions of science and the Standards are based

on a doctrine or orthodoxy that permits only natural, material, or mechanistic explanations for the cause of origins events, (ii) that the Orthodoxy is inconsistent with the abductive method of reasoning used in historical origins science as it excludes from consideration the evidence based teleological alternative, (iii) that the explanations permitted by the Orthodoxy are materialistic and functionally atheistic, and (iv) that students are not expected to understand, know or accept those explanations to be true, valid or the best of the competing evidence-based explanations;

- (g) That an evidence-based teleological alternative competes with the materialistic explanations provided by the Orthodoxy, which is an inference to an intelligent rather than a material cause for a pattern that exhibits (i) purpose or function, (ii) a sequence or arrangement of elements that is not due to physical or chemical necessity, and (iii) where the elements of the pattern necessary to its function are too numerous or complex to be plausibly explained by chance or stochastic processes.
- (h) That intersubjectively accessible evidence exists which supports the teleological alternative and which is inconsistent with the Orthodoxy regarding the origins events, and that such evidence may not have been taken into account in the development of the materialistic/atheistic answers allowed by the Orthodoxy (the "excluded evidence");
- (i) That students will be reasonably and objectively informed of the nature and extent of the excluded evidence;

- (j) That it is rational and reasonable for students to take into account the excluded evidence in deciding what to believe about the best explanation for the cause of origins events;
- (k) That explanations for biological evolution provided by the Standards were developed using the Orthodoxy and therefore are not based on a weighing of all the available evidence using common rules of evidence consistent with the principles of abductive reasoning used in historical sciences;
- (l) That explanations for biological origins provided by the F&S do not distinguish between micro and macro-evolution, and although significant evidence exists to support micro-evolutionary explanations via random mutation and natural sorting, a scientific controversy exists as to whether random mutation and natural sorting adequately explain the cause of macro-evolutionary events.
- (m) That various lines of evidence used to support the theory of biological evolution (fossil record, anatomical similarities, biochemical similarities, embryological development, biogeography) are also consistent with the evidence-based teleological alternative, thereby necessitating a weighing of the evidence for and against the competing teleological and materialistic views to logically reach an inference to the best explanation;
- (n) That explanations for biological evolution are also based on an assumption that the origin of life occurred via a material, mechanistic or natural cause, although there is no known evidential basis for that explanation and that science is essentially ignorant as to how life began if it did begin via a material cause;

- (o) That the misleading statements described in paragraphs 96 through 108 be eliminated from all science curricula;
- (3) Any standard that will have the effect of causing origins science explanations to cohere with other subject matter or curriculum unless the coherence includes all of the elements of (2).
- d. nominal damages against the defendants for violating the plaintiffs' rights under the First and Fourteenth Amendments to the United States Constitution;
- e. an order awarding plaintiffs the costs incurred in this litigation, including attorneys' fees pursuant to 42 U.S.C. § 1988; and
- f. any such further relief as the Court deems equitable, just, and proper;
- g. that this Court adjudge, decree and declare the rights and other legal relations of the parties to the subject matter here in controversy, in order that such declarations shall have the force and effect of final judgment; and
- h. that this Court retain jurisdiction of this matter as necessary to enforce the Court's orders.

DEMAND FOR JURY TRIAL

COME NOW, Plaintiffs and hereby demand a trial by jury on all triable issues.

Respectfully submitted,

/s/ Douglas J. Patterson

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Exhibit “A”

Exhibit A to Complaint

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June 1, 2012

Achieve, Inc.
1400 16th Street NW, Suite 510
Washington, DC 20036

RE: Response of Citizens For Objective Public Education, Inc. (COPE)
To 2012 Draft of National Science Education Standards (the "Standards")
and the Framework for K-12 Science Education (the Framework) upon
which the Standards are based

Ladies and Gentlemen,

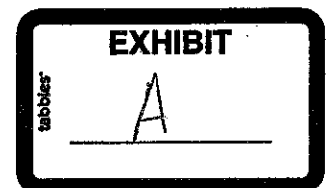
We sought to provide general comments with respect to the above on the web site developed for public comment. However, the field permits a comment of only a couple of pages. Accordingly, we provided in that field a very brief comment and explained that this more lengthy comment would be mailed to your address as provided on your "Contact Us" web page.

Please provide any response to Anne Lassey at the above Kansas address.

The following are our more detailed comments regarding the Framework and Standards:

1. The "stakeholders" COPE represents are children, parents and taxpayers who share our views regarding the need for objectivity in public education that addresses religious issues. COPE is a nonprofit organization that seeks to ensure neutrality in the teaching of subjects in public schools that touch on religious issues. Curricula that address religious questions should objectively inform students in a manner that produces a religiously neutral effect, given the age and maturity of the expected audience. This approach not only seeks to preserve the religious rights of children, parents and taxpayers, but it also promotes critical thinking and logical analysis important to good education.

Subject to the rights of parents to direct their religious education, children have the right to choose what to believe about important religious issues, whether theistic, pantheistic or atheistic. If the curriculum promotes only one of competing religious viewpoints then it will indoctrinate in the preferred view rather than objectively teach about it. This will effectively deprive the child of the right to make an informed decision about the religious issue. Religious indoctrination will also take away the right of parents to direct the religious education of their children. Similarly, it will offend the rights of taxpayers who do not support the particular religious position being presented to students and classify them as outsiders within the community.



The State may satisfy its First Amendment obligations by excluding religious subject matter from the curriculum. It can also include the subject matter if it does so objectively and in a neutral manner that respects the Constitutional rights of children, parents and taxpayers. This

may be accomplished with some subjects through carefully designed programs that inform students of the competing or alternative viewpoints that lead to differing religious implications and inferences. Neutrality may also be achieved through an objective consideration of the strengths and weaknesses of explanations that support a particular religious viewpoint. Objectivity opens rather than closes the minds of students. It encourages critical thinking about answers to ultimate questions that may profoundly affect the way they choose to lead their lives. Objectivity and neutrality will also enhance science education by encouraging critical and independent thinking and analysis.

We are furnishing this comment because the Framework and Standards address religious questions and then provide Atheistic/materialistic explanations in a manner that is not likely to produce a religiously neutral effect.

2. Religion under the First Amendment includes non-theistic beliefs. Religion has been defined by the courts very broadly to include theistic and non-theistic religions: Atheism, Religious (“Secular”) Humanism, Buddhism, Ethical Culture, *et al.* In *McGowan v. Maryland*, 366 US 420, 461 (1961), the Supreme Court described religion as an “activity that profoundly relates the life of man to the world in which he lives.” This is an explicit goal of the Framework – to relate the lives of the children to the world in which they live. The courts indicate religion is an organized set of beliefs about “matters of ultimate concern,” such as ultimate questions about the cause, nature and purpose of life and how it should be lived. Religions provide answers to questions like “Where do we come from?” “What is the nature of life – is it just an occurrence or is it a creation made for a purpose?” “What happens when we die?” “How should life be led from an ethical and moral standpoint or from a standpoint that logically denies the idea of absolute ethical and moral standards?”

3. It appears that the Framework and Standards promote Religious (“Secular”) Humanism. The particular religious view that appears to be promoted by the Framework and Standards is an Atheism referred to as Religious (“Secular”) Humanism. The Humanist Manifestos define “Religious Humanism” (now called “Secular Humanism”) as an organized set of atheistic beliefs that (1) deny the supernatural, (2) claim that life arises via unguided evolutionary processes rather than as a creation made for a purpose, and (3) claim that life should be guided by naturalistic/materialistic science and reason rather than traditional theistic religious beliefs. These tenets imply that life has no inherent purpose and that it ends on death. The manifestos also explain that this religion is evangelistic as it seeks to replace all traditional theistic beliefs in all public and private institutions. The word “Religious” in the 1933 Manifesto was replaced with the word “secular” after the Supreme Court held that the First amendment was applicable to the states in the 1940s.

In a court proceeding in 1987 where the belief system was held to be a religion, Paul Kurtz, a co-author of Manifesto II (who had previously acknowledged it to be a religion), was asked what the belief system was if, as he then argued, it was not a religion. Kurtz replied that “Secular Humanism is science.” This is interesting because the science Framework and proposed Standards certainly promote all of the tenets of Religious (“Secular”) Humanism. However the courts have found it to be a religion and not science. Judge Hand clearly articulated his reasons as follows:

“Dr. Paul Kurtz testified that secular humanism is a scientific methodology, not a religious movement. . . . Dr. Kurtz’s attempt to revise history to comply with his personal beliefs is of no concern to this Court. For first amendment purposes, the commitment of humanists to a non-supernatural and non-transcendent analysis, even to the point of hostility towards and outright attacks on all theistic religions, prevents them from maintaining the fiction that this is a non-religious discipline. This Court is concerned with the logic and consistency, the rationality, one might say, of Dr. Kurtz’s contention that secular humanism is not a religious system, but science. Secular humanism is religious for first amendment purposes because it makes statements based on faith-assumptions.” [Smith v. Bd. of Sch. Comm’rs of Mobile County, 655 F. Supp. 939, 982 (S.D. Ala. 1987), rev’d on other grounds, 827 F.2d 684 (11th Cir. 1987).]

Since the Framework and the Standards address all of the issues important to all religions, they should be revised to ensure that the subject matter is objectively presented in a way that has a religiously neutral effect. Some of our key concerns are very briefly listed below.

4. The use, purpose and effect of Methodological Naturalism are not explained.

“Materialism” or “naturalism” is “a doctrine, theory, or principle according to which physical matter is the only reality and the reality through which all being and processes and phenomena can be explained.”¹ “Methodological Naturalism” (MN) is the idea that science is not permitted to explain the cause of events within the natural world with anything other than a materialistic explanation through the use of “material” or “natural” causes (that is a cause resulting from the unguided interactions of matter, energy and the forces). Thus MN effectively requires materialistic explanations. Accordingly, when applied to the ultimate questions of life, only atheistic or unintelligent cause explanations are permitted. MN requires that all evidence of an intelligent cause be ignored or somehow attributed to a natural cause. MN is a logical assumption when dealing with experimental physical science in the present-day world. However, it is problematic when applied to historical life sciences that address questions that are both religious and scientific.

Children should be informed that MN is being used in the historical and life sciences and that there is a significant body of evidence that conflicts with its materialistic assumption. Many recognized scientists believe it should be abandoned in certain areas of historical science, where it impedes rather than aids open-minded inquiry.

The assumption of materialism (MN) is incompatible with science education that must respect the religious rights of children, parents and taxpayers. The effect of MN is to lead children to accept atheistic explanations of the origin and nature of life, rather than to question them. Not only must use of this assumption be explained, students must also be informed of the evidence and alternative explanations that are excluded by the assumption so that they acquire a genuine appreciation and understanding of its overall effect. The Framework and Standards do none of this. Instead, while using the assumption, they effectively hide its use.

¹ Webster’s Third New International Dictionary of the English Language, Unabridged (2003).

5. No distinction is made between experimental and historical science. Most science takes place via experimentation and observation in the present-day world. This may be called “experimental” (or empirical) science. However, some branches of science use a form of abductive reasoning in an attempt to reach a “best explanation” for the cause of past events. This type of “historical” science is practiced in such disciplines as cosmology, astronomy, historical geology, paleontology, archaeology, and origins science (studies of the origin and development of life on earth). Biologist Ernst Mayr put it this way:

“[Charles] Darwin introduced historicity into science. Evolutionary biology, in contrast with physics and chemistry, is a historical science – the evolutionist attempts to explain events and processes that have already taken place. *Laws and experiments are inappropriate techniques for the explication of such events and processes. Instead one constructs a historical narrative, consisting of a tentative reconstruction of the particular scenario that led to the events one is trying to explain.*” [Ernst Mayr, *Scientific American*, 283 (2000) 78.]

Philosopher of science Carol Cleland explains that “there are fundamental differences in methodology between experimental scientists and historical scientists....” She goes on to say that “good historical scientists focus on formulating multiple competing (versus single) hypotheses.... Their main research efforts are directed at searching for a smoking gun, a trace that sets apart one hypothesis as providing a better causal explanation (for the observed traces) than the others.” [Carol E. Cleland, *Geology*, 29 (2001) 987.]

Abductive reasoning requires one to show that evidence offered in support of a historical hypothesis also rules out alternative or competing explanations. Evolutionary explanations regarding the origin and development of life on earth depend to a large extent on imagination and speculation about past events rather than experimental testing and direct observation. It is crucial to note that the Framework and Standards do not inform students that alternatives to unguided evolutionary explanations exist.

The historical versus experimental distinction is extremely important in the context of modern evolutionary theory. This is because it is grounded in the incontrovertible assumption of Methodological Naturalism (MN). MN, as explained above, rules out the primary competing historical hypothesis that life arises via a guided or designed process. Thus, MN allows only one of the competing ideas – the materialistic explanation that all of the diversity of life arises via the unguided evolutionary mechanism of random mutation and natural sorting (“selection”). The excluded teleological hypothesis arises not from a religious text, but from direct observations, experiment and statistical analysis of biological systems, and other aspects of the natural world which appear exquisitely designed, including human consciousness. The appearance of design is evidenced by the adjectives and metaphors found both in the Framework and all of the scientific literature. Although MN has application in many areas of physical science, it is counterproductive in the context of historical evolutionary science. This is because its materialistic/Atheistic assumption has the effect of ruling out the competing hypothesis, not on the evidence but by enforcement of its dogma. This causes so-called “scientific” explanations to be functionally Atheistic when it addresses religious questions like the origin of life and its diversity. The Atheistic effect arises because the dogma requires one to ignore evidence inconsistent with materialism and consistent with teleological inferences.

Accordingly, we believe the Framework and Standards must (1) describe methods of testing historical hypotheses in historical sciences by seeking the best of competing explanations, (2) state the fact that this method is not generally used in the development of unguided evolutionary

explanations about the origin of life and its diversity, as MN rules out the competition by assumption rather than by the evidence, and (3) include a showing of the evidence that would be considered but for the use of MN, and (4) describe how that evidence would affect the

plausibility of the evolutionary explanations. Unless this kind of objectivity is required, then the effect of the NGSS will not be religiously neutral as it will inexorably lead children over their thirteen years of education to accept the atheistic view of how life is related to the world in which it is lived.

6. Evidence which is inconsistent with the unguided materialistic assumption of MN and which supports the idea that the apparent design of many aspects of the natural world may be real is not included. Some of this evidence (none of which appears in the Framework or Standards) is summarized below:

- (a) The characteristics of the matter, energy and forces that comprise the physical universe have discrete values, which if changed by any small amount, would not permit the existence of human life. This phenomenon suggests that the universe itself and its matter, energy and forces have been “fine-tuned” or “designed” for life. If any one of these constants were changed by a small amount, human life would not be possible within the universe. This *evidence* supports the view that the universe itself is a design rather than a mere random occurrence.
- (b) The *intangible* genetic code and other codes in living organisms have no known natural or material cause. Furthermore, these *intangible* codes are far more sophisticated than any designed by man, suggesting an intelligent cause for their origin. The genetic code was found in 1998 to exhibit “*Eerie Perfection*.”²
- (c) Natural cause explanations are inconsistent with the *intangible* messages of life that are carried in sequences of four bases in DNA. Investigation has shown that the sequences are not ordered by any physical or chemical necessity. The lack of such necessity caused renowned geneticist Jacques Monod to describe this as the “ultimate mystery of life.”³
- (d) There are no known coherent materialistic explanations for the origin of life itself. Even the Framework describes the initial cellular information processors needed to get life started as “programmed.” In particular we believe the Framework and Standards should include an objective presentation of the state of our existing scientific knowledge relative to the origin of life.
- (e) Major increases in organized biocomplexity require numerous additions to the information content of DNA before selectable function can arise, thereby casting doubt on the plausibility of stochastic processes to explain all of those increases. The inherent problem of trying to explain large pre-function increases by a random gradual process is that the probability of the occurrence of the new beneficial function decreases exponentially as the number of necessary steps or mutations increase only

² In *Life's Solution: Inevitable Humans in a Lonely Universe* (2003, p. 13), paleontologist Simon Conway Morris devotes a sub-chapter to the extraordinary efficiency of the Genetic Code, which he calls “*Eerie Perfection*.” See also Stephen J. Freeland and Laurence D. Hurst, *Journal of Molecular Evolution*, 47 (1998) 238.

³ Jacques Monod, *Chance and Necessity* (Austryn Wainhouse trans.), 1971, pp. 95-96. “[I]f one were able not only to describe these sequences but to pronounce the law by which they assemble, one could declare the secret penetrated, the *ultima ratio discovered*.”

incrementally. This statistically increases “waiting times” for the occurrence of new function far beyond available probabilistic resources. Examples of increases which are challenges to the gradual Darwinian process are the ubiquity of orphan genes which have no detectable homolog in other organisms, the ubiquity of biological convergence, and the sudden appearance of novel body parts and body plans without adequate evidence of a series of gradual transitions.

- (f) Many scientists now believe that the neo-Darwinian mechanism for macroevolution (random DNA mutation and natural selection) is inadequate to explain major rapid increases in organized biocomplexity. An example is James A. Shapiro’s *Evolution: A View from the 21st Century* (2011) in which he “explains how conventional evolutionary theory (as elaborated from the Darwinian synthesis) has become outdated....”
- (g) A number of statistical analyses and experiments show that random mutation and natural selection are implausible explanations for increases in organized biocomplexity that require multiple integrated steps before function arises. The issue is also intuitive as probability decreases exponentially as the number of integrated steps necessary for function increase only incrementally.
- (h) Although the Framework and Standards describe mutations as “beneficial ... harmful, and some neutral to the organism,” much of the data indicate that mutations that are beneficial are extremely rare and that mutations generally result in a loss of functional or prescriptive information rather than a gain of information. This evidence casts doubt on the plausibility of random mutations accounting for major increases in biocomplexity within plausible “waiting times.”

7. Definitions of key terms are omitted. The Framework and Standards contain no glossary of key terms and phrases. In particular important concepts such as “science,” “scientific knowledge,” “evolution,” “natural cause,” “mechanism,” “materialism,” “methodological naturalism,” “intelligent design,” and the like need to be carefully defined. Without clear definitions the Framework and Standards are ambiguous, open to interpretation, confusion and conflicting messages. Definitions are needed to enable clear communication of concepts and core ideas of science. This is particularly the case when the boundaries between science and religion are so closely intertwined.

A particularly egregious omission is the failure of the Framework and Standards to explain the various definitions of evolution. One common definition is simply “change over time,” which means that different species lived during different time periods on earth. This is not controversial. “Microevolution” is small-scale change within a species (adaptation, change in gene frequency). This is also generally not controversial. However, “Macroevolution” is a controversial historical hypothesis. It seeks to explain all major increases in organized biocomplexity via unguided descent with modification from a common ancestry. The Framework and Standards ignore the distinction and controversy and therefore *assume by extrapolation* and the use of MN that microevolution leads to macroevolution over long periods of time. This supposition is the subject of much scientific debate. Students should be informed of the debate and not be given the impression that all forms of “evolution” are the same, and that if one form is true then all are true.

8. There appears to have been no vetting for First Amendment compliance. We note that the Framework and Standards have apparently not been analyzed for First Amendment

compliance. A word search of both the Framework and the Standards for the word “religion” results in a “not found” response. This is odd given the clear recognition that the Standards are designed to influence the worldviews of “all children” and “all citizens.” They explicitly have as their goal to cause children to relate their lives to the world around them. Thus, the Framework and Standards studiously ignore the religious rights of parents, children and taxpayers. Instead, the document explicitly and implicitly promotes an atheistic worldview.

9. Religious groups are not included within the concepts of “Equity and Diversity.” The emphasis of the Framework and Standards on “Equity and Diversity” omits any mention of equity and non-discrimination among diverse religious groups and beliefs. Although the Framework and Standards discriminate in favor of a religious worldview that is atheistic, they mask that discriminatory effect by omitting any explicit mention of “religion” at all. This leads the student and patrons of science to believe that atheism is not religious and that the Standards are not religious, when in fact atheism is a profoundly religious viewpoint that actively seeks to change the religious views of traditional theists.

10. The religious beliefs of the Committee are not disclosed. Given the religious nature of the Framework and Standards it would be helpful to children, parents and taxpayers to know more about the religious beliefs of the Framework Committee and those who assisted with its development. The Framework is copyrighted by the National Academy of Sciences, and a number of the members of the committee are members of the Academy. A study published in the journal *Nature* shows that ninety-three percent of Academy respondents disbelieved (72.2%) or doubted (20.8%) the existence of a “personal god.”⁴ Thus, nearly 92% of the Academy might be classified as sympathetic to the tenets of Religious (“Secular”) Humanism. Indeed, one of the major contributors to the Framework, Eugenie Scott, who is the CEO of the National Center for Science Education, is a signatory to Manifesto III and has been listed among the top 50 Atheists in the country.

11. The Framework and Standards are not age appropriate. Since the Standards and Framework address religious issues, then they must ensure that the children have the knowledge and intellectual maturity needed to allow them to make informed judgments about the religiously sensitive material before it is presented. In this respect we find the Framework and Standards inappropriate as they begin teaching these religious concepts in Kindergarten. We believe teachings about religious issues relating to the origin and nature of life should not be introduced before the ninth grade. The complex issues relating to the origin of life and its diversity require a good understanding of a number of scientific concepts dealing with physics, chemistry, geology and biology. Because the origins issue unavoidably addresses religious questions, objective teachings about it will necessarily involve high intellectual capacities but also a substantial grounding in many scientific disciplines. If the teaching of unguided materialistic evolution begins in Kindergarten, one may reasonably conclude that the children will lack the knowledge and maturity necessary to reach informed decisions about what to believe about that “dangerous idea.”⁵

⁴ Edward J. Larson & Larry Witham, *Nature*, 394 (1998) 313. The article closes with these remarks: “As we compiled our findings, the NAS issued a booklet encouraging the teaching of evolution in public schools. . . . The booklet assures readers, ‘Whether God exists or not is a question about which science is neutral.’ NAS president Bruce Alberts said: ‘There are many very outstanding members of this academy who are very religious people, people who believe in evolution, many of them biologists.’ *Our survey suggests otherwise.*”

⁵ “Darwin’s Dangerous Idea” is the title of a book by Atheist Daniel Dennett (1995) that is also the title of a PBS video that features Dennett and his views about evolution. Dennett explains that the idea is “dangerous,” because it has the effect of destroying the idea of a creator God that is the foundation of traditional theistic beliefs.

12. Coherence and progression can become tools of indoctrination and evangelism. The Framework and Standards are designed to cause all children to accept the core ideas presented. To achieve this result they utilize a method of progressively increasing knowledge about a “core

idea” over the 13-year educational experience so that by the end of the 12th grade the child will be proficient in understanding and accepting the core idea. In addition the idea is used in connection with other ideas so that all of the ideas “cohere” into a single organized belief system or world view. This method has significant merits if one is trying to train a child to play baseball or learn how to read or do math. However, when applied to an idea about religion, it becomes a tool of indoctrination and evangelism. Thus, beginning to teach children uncritically the tenets of unguided materialistic evolution, a “dangerous idea,” in Kindergarten and continuing that teaching for the next thirteen years will have the likely effect of causing the child to come to believe in that religious idea and to eventually become one who embraces an atheistic view regarding the origin and nature of life.

Accordingly, we believe that subjects that deal with religious issues be taken out of the coherence and progressions and treated separately in upper grade classes (if covered at all) where the curriculum has been carefully designed to present the subject matter objectively to a mature and knowledgeable audience so that the effect of the curriculum is religiously neutral.

13. The Framework and Standards cause science to be an enterprise promoted by consensus. The Framework abandons the scientific method and converts science into an enterprise that rules by consensus. This so-called “consensus” then purports to speak for all scientists. This would seem to convert it from an enterprise that investigates into one that seeks to make social policy. We know that many scientists disagree with this move. This is important as the scientific method holds the definition of scientific knowledge to a high standard. In *Daubert v. Merrill Dow Pharmaceuticals* [509 U.S. 579, 590 (1993)], the Supreme Court found, based on the testimony of scientists, that scientific knowledge is knowledge gained by the scientific method. The scientific method limits scientific knowledge to intersubjectively accessible knowledge that has been tested by observation and experiment, where possible. However, the ambiguous Framework description of scientific knowledge appears to cast it in terms of knowledge that has been agreed to by a “consensus” of an unspecified group of scientists based on assumptions, models and speculations that may or may not be intersubjectively accessible. This puts the classification of what is and what is not scientific knowledge in the hands of those who control the “consensus.” Rather than having knowledge defined by tested evidence, it appears to be defined by what some group of scientists say it is. Often funding for scientific endeavors depends on a particular form of “consensus,” which renders the entire notion of scientific objectivity questionable. This formula for science undermines the trust of patrons of science and tends to make science an advocacy enterprise that favors particular religious beliefs and political ends.

14. Politically correct, big government solutions are promoted. The Framework and Standards appear to set societal goals to be achieved by increased governmental involvement and regulation. This is inconsistent with the role of science as an unbiased and objective investigator. It puts science in the role of a public policy advocate that promotes a pro-government, atheistic bias. Government regulations can sometimes be helpful, but they also reduce individual rights and individual freedom. It appears that the Standards and Framework are being used to promote increased government and reduced human freedom.

15. The mechanisms used for obtaining public feedback are biased. It appears from the report on public feedback that most of the feedback came from institutions of science already

committed to a functionally atheistic view of life. The only evidence of any contrary response came from those who “wanted evolution excluded.” A number of focus groups were conducted, but were any held that involved scientists not committed to the use of methodological naturalism

or to groups of open-minded parents or groups of scientists that might be classified as unconvinced with standard atheistic explanations of origins? Given the lack of objectivity in the Framework with respect to the question of origins, it is understandable that parents and students would want evolution omitted. We believe it can be included in the Standards, but only in a manner that is truly objective so that the presentations are both scientifically valid and religiously neutral. This can be accomplished without discussing origins narratives found in religious texts such as the Bible.

In conclusion we do not believe the Standards and Framework produce a religiously neutral effect required by law and should be revised to achieve that effect and render science truly objective.

Very truly yours

s/ Anne Lassey
Anne Lassey, VP
For the Board of Directors

Exhibit “B”

Citizens for Objective Public Education

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January 29, 2013

Achieve, Inc.
1400 16th Street NW, Suite 510
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RE: Response of Citizens for Objective Public Education, Inc. (COPE)
to the January 2013 Draft of National Science Education Standards (the *Standards*)
and the Framework for K-12 Science Education (the *Framework*)
upon which the Standards are based.

Ladies and Gentlemen,

We have reviewed the second draft of the Next Generation Science Standards and find that it is not responsive to any of the comments we provided regarding the first draft. A copy of that response (dated June 1, 2012) is posted on our website at www.COPEinc.org/docs/COPE-Letter-Achieve-Inc-June-1-2012.pdf. Achieve's lack of response to the serious Constitutional, scientific, and educational issues raised by our letter is both surprising and puzzling.

To reiterate our main complaints:

1. The *Framework* and *Standards* (F&S) address fundamental religious questions. If implemented the F&S will likely indoctrinate children, beginning in Kindergarten, to accept materialistic/atheistic explanations to these religious questions.
2. The F&S do not explain to impressionable children the use, purpose, and effect of using methodological naturalism, which arbitrarily limits explanations in historical (origins) science to materialistic/atheistic causes.
3. The F&S omit evidence that conflicts with the materialistic assumption of methodological naturalism, including evidence that leads to a logical inference of purposeful design in nature.
4. The F&S omit distinctions between historical (origins) science and experimental (operational) science, which are important in assessing the plausibility of competing materialistic and teleological narratives about the origins of the universe and of life.
5. The F&S make no provision to provide students with clear and precise definitions of key terms and phrases necessary to an adequate understanding of the nature of science, the concepts presented, and the methods used for testing hypotheses.
6. The F&S are not age appropriate. For example, throughout grades K-8 the F&S seek to teach answers to religious questions to immature minds that lack the capacity or knowledge to understand or to question the teachings.



7. The *Standards*, which effectively promote an atheistic religious viewpoint, are designed to cohere in mathematics, English language arts, and social studies. Coherence and progression, while good in some cases, become tools of indoctrination and evangelism that will promote that religious viewpoint.

8. The F&S reflect the consensus of a small group of science and education elites. Input from parents and other stakeholders appears to have been minimal or non-existent. Although the F&S purport to promote diversity among a wide variety of groups and classes of individuals, no provision addresses the religious rights of theistic stakeholders.

9. The F&S support specific political views on certain controversial issues. Legitimate competing viewpoints are minimized or omitted.

These concerns have already been explained in detail in our letter of June 1, 2012. In this letter we will provide a few specific examples of our concerns with respect to selected provisions in the January 2013 draft.

A. Materialism.

The philosophy of *materialism* (or naturalism) and the assumption of *methodological naturalism* by NGSS were covered in some detail in our letter of June 1, 2012. Only a couple examples of their use by NGSS will be given here. Crosscutting concept #2 is described as follows:

“Cause and Effect: Mechanism and Prediction. Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.” (Appendix G, p. 13)

In the context of the *Standards*' prescription of methodological naturalism as the sole legitimate scientific methodology, this concept assumes that all events are the product of unguided material/mechanistic causes. However, there are many events for which the cause is unknown, such as the origin of the universe, the origin of the genetic code, and even the origin of life itself. Much of the evidence relative to causation actually points to nonmaterial/teleological causes as a more plausible explanation.

The assumption that only material causes have “mediated” all events in the natural world is evidenced by a dichotomy used throughout the *Standards*. Several references are made to the “natural and designed world” and to “natural and designed systems.” These are some examples:

“Ask questions based on observations of the natural and/or designed world.” (Appendix F, p. 5, grades K-2)

“Cause and effect relationships may be used to predict phenomena in natural and designed systems.” (Appendix G, p. 4, 6-8 grade band)

“Cause and effect relationships can be suggested and predicted for complex natural and human designed systems by examining what is known about smaller scale mechanisms within the system.” (Appendix G, p. 4, 9-12 grade band)

These examples *assume* that human-made systems are designed and that “natural” ones are not. This is an opinion, not a scientific fact. An enormous amount of observable evidence contradicts this dichotomy. Evolutionary biologists, in a paper published in the *Proceedings of the National Academy of Sciences*, acknowledge that “[T]he challenge for evolutionary biologists is to explain how seemingly well designed features of [an] organism, where the fit of function to biological structure and organization often seems superb, is achieved without a sentient Designer.” [Adam S. Wilkins, “Between ‘design’ and ‘bricolage’:

genetic networks, levels of selection, and adaptive evolution,” in *PNAS* (2007), 1004 (Suppl. 1), *supra* note 53]

B. The nature of science.

The term *science* is only defined in a general sense in the *Standards*:

“[S]cience is a way of explaining the natural world.” (Appendix H, p. 1)

“Science is the pursuit of explanations of the natural world.” (Appendix H, p. 2)

This definition is extremely misleading and inadequate. It gives the impression that *all logical* explanations for natural phenomena can be considered, but taken in context with the *Standards*' prescription of methodological naturalism, in reality only *materialistic/mechanistic* explanations are allowed.

The *Standards* list these criteria regarding scientific inquiry:

“Scientific inquiry is characterized by a common set of values that include: logical thinking, precision, open-mindedness, objectivity, skepticism, replicability of results, and honest and ethical reporting of findings.” (Appendix H, p. 6)

“Scientific explanations are subject to revision and improvement in light of new evidence.” (Appendix H, p. 6)

These statements are good guidelines, but by limiting science to materialistic explanations, the *Standards* violate these criteria. NGSS leads the student to believe that science is open-minded, when in fact the *Standards* promote the closing of minds with respect to the possibility that the apparent design of living systems is not an illusion.

Also, NGSS never defines the key term “scientific knowledge.” The Supreme Court has concluded that “to qualify as ‘scientific knowledge,’ an inference or assertion must be derived by the scientific method.” The *Daubert* decision explains that true science seeks the most “reliable” explanations rather than explanations that seek to reach a pre-ordained conclusion. The Court pointed out that the focus should be “on principles and methodology, not on the conclusions that they generate.” [*Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 590 (1993)] The scientific method is defined by a dictionary frequently used by that Court “as the principles and procedures used in the systematic pursuit of intersubjectively accessible knowledge and involving as necessary conditions the recognition and formulation of a problem, the collection of data through observation and if possible experiment, the formulation of hypotheses, and the testing and confirmation of the hypotheses formulated.” [*Webster's Third New International Dictionary*, 2003] This definition omits any suggestion that scientific knowledge is to be developed through the use of a preconception like methodological naturalism.

C. Evolution.

This core idea from the *Standards* relates to the *origin of the diversity of life*:

“Genetic information, like the fossil record, also provides evidence for evolution. DNA sequences vary among species, but there are many overlaps; in fact, the ongoing branching that produces multiple lines of descent can be inferred by comparing the DNA sequences of different organisms. Such information is also derivable from the similarities and differences in amino acid sequences and from anatomical and embryological evidence.” (HS-LS4.A)

This description is *biological evolution*, a materialistic origins narrative. Only evidence that appears to support biological evolution is given, and no evidence is given that critiques the adequacy of the theory. The core idea listed above is particularly misleading, since the evidence cited (fossil record, similarities, embryological development) can also be interpreted as evidence that the apparent design of the system is not an illusion. However (because of the use of methodological naturalism), the evidence that leads to a teleological inference, as explained above in the *PNAS* article, is omitted.

D. Environmentalism.

This important topic was not addressed in the letter of June 1, 2012. The *Framework* and *Standards* seek to imbue students with a particular view regarding the manner in which humans should respond to climate change, sustainability, and other environmental matters. This issue impacts not only religion, but also political and Constitutional views regarding human liberty, the right to property, and the proper role of government. Like origins science, environmental science often reduces to matters of opinion about many controversial issues. The fact that the F&S take a position on these issues seems to be inconsistent with the view of the U.S. Supreme Court that the state should not prescribe what is “orthodox in politics, religion, nationalism or other matters of opinion.” [West Virginia Board of Education v. Barnette, 319 U.S. 624, 642 (1943)] The following are specific examples taken from the *Standards*.

Several core ideas, including those listed below, relate to *human interaction* with the environment:

“Moreover, anthropogenic changes (induced by human activity) in the environment – including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change – can disrupt an ecosystem and threaten the survival of some species.” (HS-LS2-j)

“But human activity is also having adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change.” (HS-LS2-l)

The emphasis in the *Standards* seems to be on ameliorating the negative effects of human activities – without giving consideration to the negative effects of governmental regulation on human liberty, property rights, and the economy. Also, there needs to be a greater emphasis on positive human effects that result from responsible interactions with the environment. The issue is extraordinarily complex and based in many respects on opinions which frequently change as new data come to light. What seems to be lacking is an objective discussion of competing viewpoints.

Several core ideas, including the ones listed below, deal with the controversial issue of *climate change*.

“The geological record shows that changes to global and regional climate can be caused by interactions among changes in the sun’s energy output or Earth’s orbit, tectonic events, ocean circulation, volcanic activity, glaciers, vegetation, and human activities.” (HS-ESS2-e,f)

“Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth’s mean surface temperature (‘global warming’).” (MS-ESS3-e)

While there is evidence that global temperatures may be slowly rising, the causes and future effects of “global warming” are still being debated. In particular, students should be aware that there is widespread debate among climate scientists over (a) the extent to which greenhouse gases (GHG) contribute to changes in global temperature, (b) the degree of climate sensitivity to atmospheric carbon dioxide, (c) whether the consequences of GHG warming will be net beneficial or net harmful, and (d) whether the

benefits of any attempts to reduce GHG emissions would be worth the costs. The curriculum needs to be balanced and objective on this topic.

Another core idea deals with *sustainability*:

“The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources.” (HS-ESS3-e)

The general idea of protecting the environment and conserving natural resources is not controversial. However, “sustainability” has become a political movement that emphasizes simpler lifestyles, reduced economic development, global redistribution of wealth, limited use of natural resources in developed countries, “green” (renewable) energy, “smart growth” policies, human population control, and global governance. In short, sustainability is more a term of ideology than of science; it is a word that needs to be defined and used carefully. But more importantly, the issue deals with “politics, religion and other matters of opinion.” We question the wisdom of even raising these issues with impressionable young minds. If they are raised, then the state assumes an enormous burden of presenting the issues objectively so that they will have a neutral effect. It is clear to us that NGSS coverage of environmental issues lacks the necessary objectivity.

E. Glossary and definitions.

The January 2013 draft contains a “Glossary of Common Acronyms used by NGSS.” A dictionary definition of *glossary* is a “list of terms in a special subject, field, or area of usage, with accompanying *definitions*.” No definitions are given in the NGSS “Glossary,” so the word is used incorrectly. A real glossary is needed so that the meaning of key words is clear. Among the many words and phrases that should be defined are these: science, scientific knowledge, materialism, mechanism, naturalism, methodological naturalism, teleology, design, information, evolution, homology, adaptation, mutation, natural selection, climate change, global warming, ecosystem, and sustainability.

In summary, Achieve has failed to respond to the key concerns we have raised about the proposed NGSS document. We believe the issues we raise must be satisfactorily resolved to ensure that the *Framework* and *Standards* are consistent with the mandates of the First Amendment that “government activities [which] *touch on the religious sphere* ... be secular in purpose, evenhanded in operation, and neutral in primary impact.” [*Gillette v. United States*, 401 U.S. 437, 450 (1971)]

Sincerely yours,



Robert P. Lattimer, Ph.D.

President

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