A CATECHISM OF CREATION An Episcopal Understanding

Prepared for Study in Congregations by The Committee on Science, Technology and Faith of The Executive Council The Episcopal Church in the United States of America

> First Edition, Revised June, 2005

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The Executive Council received the Catechism at its June 13-16, 2005, meeting in Louisville, Kentucky. Resolution NAC 027/CIM 035, approved June 16, 2005, "commends to the Church the Catechism of Creation produced by the Committee on Science, Technology and Faith for study in parish education and faith formation classes, Episcopal schools, diocesan and parish workshops, vacation Bible programs, summer camps, retreats, and other programs"

An electronic version is available at www.episcopalchurch.org/science/.

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INTRODUCTION

The Catechism of Creation is written in a traditional question-and-answer format, like the "Outline of the Faith, or Catechism" in the *Book of Common Prayer*. Part I outlines the doctrine of creation, drawing upon the Bible and the theology of the early Church. Part II presents basic information about modern scientific discoveries and theories about the history of the universe and of life. It also gives examples showing how science has informed and inspired a new theological understanding of God's relationship to the creation. Finally, Part III presents the biblical basis for the church's commitment to an ethic of caring for creation, and suggests ways in which individuals and congregations might live out this ministry.

Two appendixes complement this edition. A Bibliography encourages further study of theological, scientific, and environmental topics presented in the Catechism. A Lectionary Guide for preachers, including both the Prayer Book Lectionary and the Revised Common Lectionary, keys biblical passages on creation to the Liturgical Year. Plans have been made to supplement the electronic version (www.episcopalchurch.org/science/) with study guides and materials containing more detailed information about terms and concepts in the Catechism.

The Committee on Science, Technology and Faith is pleased to offer this Catechism to the Church as part of its ministry of education. We hope it will help Episcopalians become better informed about fundamental elements of both Christian faith and modern science. We also hope that it will invite congregations to develop an intentional ministry of caring for creation in their own communities, and inspire them to incorporate celebration of the creation in common worship.

The Catechism of Creation may also serve as a resource for devotional purposes. It invites readers to enter into a richer and fuller relationship to and appreciation for God's magnificent creation, to celebrate it with thanksgiving, and to devote themselves to caring for it.

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Part I: Theology of Creation

God of all power, Ruler of the Universe, you are worthy of glory and praise. *Glory to you for ever and ever.* At your command all things came to be: the vast expanse of interstellar space, galaxies, suns, the planets in their courses, and this fragile earth, our island home. *By your will they were created and have their being.* (Eucharistic Prayer C, *Book of Common Prayer*, p. 370)

Where do we profess our faith in the God at whose command all things came to be?

We profess it every time we say together the Nicene Creed:

"We believe in one God, the Father, the Almighty, maker of heaven and earth, of all that is, seen and unseen.

We believe in one Lord, Jesus Christ.... Through him all things were made.

We believe in the Holy Spirit, the Lord, the Giver of life."

Our creation faith is a Trinitarian faith: the Father, who is the Source of all that is, creates and upholds the creation, that is, the visible and invisible universe, through the Son, who is the pre-existent Word who speaks the universe into being, and in the life-giving, sustaining and renewing Spirit.

What are the sources of these creedal statements, the source of our faith that we live in a created universe?

Their sources are the Holy Bible and early Christian theology together with reason and prayerful reflection.

How are we to understand the word "creation" in relation to God?

"Creation" refers to the Triune God's originating act of creating, to everything that God continually brings into being, and to whatever new creation God intends. It includes both the visible and the invisible.

Why do we believe that God is "maker of heaven and earth"?

The Bible declares throughout that God is the creator. In one of many places the Old Testament prophet in Isaiah 44:23 speaks for God:

I am the Lord who made all things,

Who alone stretched out the heavens,

Who by myself spread out the earth.

In the New Testament St. Paul (Acts 17:24) refers to the God "who made the world and everything in it, he who is the Lord of heaven and earth...."

Are the creation stories in Genesis, chapters 1 and 2, meant to convey how God originated the universe?

These majestic stories should not be understood as historical and scientific accounts of origins but as *proclamations of basic theological truths* about creation. "Creation" in Holy Scripture refers to and describes the *relationship* between God and all God's wonderful works.

What theological truths about creation does Genesis 1 convey?

Genesis 1 teaches that the one true God calls the universe into existence, and all of creation responds to God's call. The creation has order and structure. It is transfigured and reveals God's presence, yet it is *natural*, not divine. It is dependent upon its Creator for its continuing existence and for all of the powers and capacities it possesses. Each element is declared to be good and the whole of it very good. Finally, Genesis 1 teaches that the Sabbath, God's holy day of celebration and rest, is anchored in the act of creation.

What truths about creation does Genesis 2 declare?

While Genesis 1 emphasizes God's *transcendence* or otherness from creation, Genesis 2, in poetic and metaphorical language, emphasizes God's *immanence* or intimate relationship with creation. In the story of the making of the garden and of the first man and woman, God is present to every creature in creating it and giving it sustenance.

Where else in Holy Scripture is God's relationship with creation conveyed?

Among many places, the Book of Job, chapters 38-41, reveals God's intimate knowledge of and relationship with all of creation, and God's ecstatic joy in and love for all creatures wild and tame. Psalm 104, also, describes God continually giving all living things life, food, and shelter, and through the Holy Spirit renewing the face of the earth. God is always creating, sustaining, renewing, and blessing.

What role does Wisdom play in creation?

Wisdom is personified and described in the books of Proverbs, Sirach, and Wisdom as God's agent and assistant in creation (Prov. 8:22-31). Wisdom teaches human beings about the creation, since she knows every part of it intimately (Sirach 24:5; Wisdom

7:22). Some theologians have described Wisdom (Greek, *Sophia*) as "the feminine face of God." The New Testament identifies Wisdom with the creating Word of God made flesh in Jesus of Nazareth (John 1-3, 14; 1 Cor. 1:24; Col. 1:15-17).

Why do we believe that Jesus Christ is the one "through whom all things were made"?

Christ is proclaimed as the pre-existing Word "through whom are all things" (1 Cor. 8:6). As the evangelist writes (John 1:1-3), "In the beginning was the Word, and the Word was with God, and the Word was God... All things came into being through him, and without him not one thing came into being." In Colossians (1:15-17), Christ is praised as the Agent of Creation ("in him all things were created"), the Wisdom of God ("the firstborn of all creation" [cf. Proverbs 8:22]), and the Sustainer ("in him all things hold together" [cf. Wisdom 1:7]).

Does our belief that Jesus Christ is the creating Word of God relate to our belief that he is our Savior?

Yes. In the Bible redemption and creation are closely tied together, for the God who saves is the very God who creates. This message appears in the Old Testament prophet of the Babylonian exile: he assures his people that the God who rescued their ancestors from slavery in Egypt and will redeem them from exile is the same Lord who created the heavens and the earth (Isaiah 40:12, 28; 42:5-6; 44:23). In the New Testament the writer of Colossians states (1:16, 20) that the Christ through whom "all things in heaven and on earth were created" is the also the one through whom "God was pleased to reconcile all things, whether on earth or in heaven, by making peace through the blood of his cross."

Why do we believe that the Holy Spirit is active in creation as "the Lord, the Giver of life"?

In the Old Testament, the Holy Spirit is imaged as the breath or "rushing wind" of God that sweeps over the waters at the beginning of creation (Gen. 1:1), and breathes life into the dust to make the first human (Gen. 2:7). The Psalmist declares:

By the word of the Lord the heavens were made,

And all their hosts by the breath of his mouth (Ps. 33:6; cf. Judith 16:14). And:

When you send forth your spirit they are created,

And you renew the face of the earth (Ps. 104:30).

God's life-giving "immortal spirit is in all things" (Wis. 12:1; cf. Ps. 139:7-10). In the New Testament the Holy Spirit is called "Lord" (2 Cor. 3:17) and "giver of life" (John 6:63), since the Spirit gives new life to all who believe in Christ Jesus (Rom. 5:5; 8:2, 9-11; 1 Cor. 15:44-45). Wisdom, Word and Spirit are linked together in creating, sustaining and recreating.

What does the Bible convey about creation's relationship to the Creator?

In poetic and metaphorical language, the creation is depicted as responding with praise for its Creator. In Psalm 148, all of the elements are called upon to give praise—sun and moon, fire and hail, snow and frost, "creeping things and flying fowl." It is said, poetically, that at the coming of the Lord, the morning stars sing together (Job 38:7), the mountains skip like rams (Ps. 114:4), and all the trees of the field clap their hands (Is. 56:12). We who can give human voice to our gratitude are also called upon to give thanks for this wonderful gift, the creation (Ps. 148:11-13).

What does the Bible reveal about God's relationship to humanity?

Genesis 1:26-28 teaches that God brought forth man and woman in the divine image and likeness, enabling them to enter into an intimate relationship with God and one another. And God gave humankind the responsibility to tend and serve the garden (Gen. 2:6), i.e., to care for "this fragile earth, our island home" (Eucharistic Prayer C). God also has given human beings creative powers. We also participate in creation through works of human thought, art and scientific invention (cf. Ex. 31:35). God invites humanity into a covenantal relationship of love for God, for all humankind and for the whole creation.

Are there other ways in which it is said in Scripture that God creates?

The Old Testament teaches that God also created a covenant people from those whom God liberated from Egypt (Ex., chapters 19-20). The Spirit, experienced as "the sound of a rushing wind" (cf. Gen. 1:1), gave birth to a new creation, the Church, at Pentecost (Acts 2:1-4). And St. Paul writes: "If anyone is in Christ, that person is a new creation" (2 Cor. 5:17).

How else does the Bible speak of a new creation?

In metaphorical and mystical language, St. Paul writes that the resurrection of Christ marks the beginning of a process that will bring not only humanity but the whole of creation into a new state of being and relationship with God. All of creation groans like a woman in labor to give birth to something new (Rom. 8:18-25). Likewise, the image of "a new heaven and a new earth" (Rev. 21:1-4) symbolically conveys not the destruction of the old but its transformation into the new. In the same letter that he writes about the mystery of the resurrected body, Paul conveys that in some inexpressible way, the whole of creation will be taken up into the life of God (1 Cor. 15). What this new creation may be remains a mystery, yet it constitutes the ground of Christian hope.

What is theology of creation?

Theology puts into words our rational and prayerful reflections on revelation. A theology of creation presents the Church's thinking about the relationship between God and the world as it is informed by our understandings of Holy Scripture and observations of nature. It seeks to express in human language the mysteries of this relationship. It is not a theory about the universe but a doctrine about the God who creates. Throughout the history of Christian thought, in the tradition of "faith seeking understanding," our

understanding of the doctrine of creation has been informed by discoveries and theories in the natural sciences, but without the doctrine itself being determined by any particular scientific theory or world view.

What does it mean to say that God creates "out of nothing"?

This ancient church teaching asserts that the Trinity has created this universe out of what did not previously exist (usually expressed by the Latin phrase *creatio ex nihilo*). Before this act of creation there was, literally, no time, space, energy, or substance of any kind. God's originating act was an exercise of God's will and pleasure, an act of love. This teaching arose from reflections on the whole course of biblical revelation about the creation and was not a conclusion drawn from scientific observation.

What does it mean to say that God continues to create?

Besides the doctrine of creation out of nothing, early Church theologians developed the doctrine of continuous creation (in Latin, *creatio continua*). It means, first, that the creation is providentially sustained through God's Word and Holy Spirit, for were the Trinity to withdraw divine power, the creation would cease to exist. Second, it means that the creation is not a once-and-for-all act: the universe comes more and more into being over time. Just as the phrase "creation out of nothing" expresses God's *transcendence* or Otherness from creation, so "continuous creation" expresses God's *immanence* or intimate Presence within creation. It means that God continually calls forth, dwells in, preserves, directs, and provides for creation.

Part II: Creation and Science

Almighty God, Creator and Redeemer of all that is, source and foundation of time and space, matter and energy, life and consciousness; grant to all who study the mysteries of your creation, grace to be true witnesses to your glory and faithful stewards of your gifts; through Jesus Christ our Lord. Amen. (Adapted from the Collect of the Society of Ordained Scientists)

Does the Bible teach science? Do we find scientific knowledge in the Bible?

Episcopalians believe that the Bible "contains all things necessary to salvation" (*Book of Common Prayer*, p. 868): it is the inspired and authoritative source of truth about God, Christ, and the Christian life. But physicist and priest John Polkinghorne, following

sixteenth-century Anglican theologian Richard Hooker, reminds us Anglicans and Episcopalians that the Bible does not contain all necessary truths about everything else. The Bible, including Genesis, is not a divinely dictated scientific textbook. We discover scientific knowledge about God's universe in nature not Scripture.

How are we to treat concepts in the Bible that appear to be scientific?

Theologians throughout the history of the Church have explained these concepts this way: God inspired the ancient writers to describe the world in concepts and language they and their audiences could understand, not in our concepts and language. The ancient world-picture—a "three-storied" creation of the heavens above, the earth beneath, and the waters under the earth (Ex. 20:4)--though meaningful in its own time, was replaced by succeeding models and most recently by our modern portrait of a vast universe with billions of galaxies. The Bible's theological declarations about God and creation remain true because they are not dependent upon the ancient world-picture in which they appear.

Are not science and the Bible in conflict with one another, as many Christians believe?

Both some non-believers and some Christians promote this Conflict approach. The former group claims that the universe is all there is and therefore the concept of God is outdated and irrelevant. Some conservative Christians perceive modern scientific theories to be hostile to their Christian faith and reject them as contrary to their beliefs about the Bible. There is a middle way, which some call a Complementary approach. Its supporters say that while they are separate fields of study with different sources of knowledge, science and Christian theology can complement one another in the quest for truth and understanding. Together they can create a more complete understanding of and give greater meaning to our world.

What are the major features of our contemporary cosmology?

Scientific evidence shows that we live in a universe so enormous that it is difficult for the human mind to grasp. This universe has no "up" or "down," no center and no edge. It has been expanding for about 14 billion years from an event called the "Big Bang." From that singular event, space and time and various forms of matter and energy have emerged. Billions of galaxies each made up of billions of stars and countless numbers of planets have come into existence. Scientists still seek to understand many mysterious features of the universe.

Does Big Bang cosmology prove the doctrine of creation out of nothing?

No. Big Bang cosmology seems to be in tune with both the concepts of creation out of nothing and continuous creation. However, theology does not depend upon science to verify its doctrines, just as science does not depend upon theology to verify its theories. Science can inspire theology to think new thoughts about the relationship between God and the creation, as Big Bang cosmology and evolution have done.

Is it proper to speak of an evolving creation?

Yes. When astronomers look out into space they look back in time. Thus, they are able to see our universe at many stages of cosmic evolution since its beginning in the Big Bang. Here on earth biologists, paleontologists, geneticists and other scientists are showing that life has evolved for nearly four billion years, and are reconstructing evolution's history. None of these scientific discoveries and the theories that explain them stands in conflict with what the Bible reveals about God's relationship to the creation.

Isn't evolution just a theory?

Theories are not mere guesses or hypotheses, as people often suppose. When enough evidence supports a hypothesis that has been created to explain some facts of nature, it becomes a theory. A theory is a well-established concept that is confirmed by further scientific discoveries and is able to predict new discoveries. The Big Bang theory and cosmic evolution are confirmed by discoveries in physics ranging from the smallest known particles of matter to the processes by which galaxies are formed. Biological evolution is a web of theories strongly supported by scientific observations and experiments. It fits in with what we know about the physical evolution of the universe, and has been confirmed by evidence gathered from the remains of extinct species and from the forms and environments of living species.

What is biological evolution?

Biological evolution means that living things change over time. A great variety and diversity of organisms have come into existence over the past four billion years from one or a few original life forms. All living things--bacteria, archaebacteria, protists, fungi, plants and animals, including human beings--are descendants of pre-existing life forms, most of which are extinct. The evidence for evolution shows that all life on earth is related and interconnected, and is often depicted as a great "Tree of Life." Evolution happens gradually, sometimes at a rapid rate and sometimes slowly, but never with discontinuities. Evolution happens because of natural selection, that is, some features of organisms lead to higher survival rates in their environments than others. Charles Darwin was the first to bring together all these ideas. Scientific researchers since Darwin have refined and added to them, but never thrown out his basic theoretical framework.

What evidence has nature provided to support biological evolution?

There are three major areas of evidence: the fossil record, biogeography, and genetics.

Fossils of hundreds of thousands of now extinct species show that life has evolved from simpler to more complex forms over millions of years. Thousands of transitional fossils help us to understand how the changes took place. Scientists use techniques based on the rate at which radioactive elements decay to date fossils and the rock layers in which they are found. In this way layers of fossils from one part of the world can be related to fossils of a similar age from another continent. These studies, combined with comparing the structures of various fossilized creatures, provide evidence for the relationships over time among living things.

While paleontologists study fossils and their relationships over time, biogeographers study the relationships and changes in species from one place to another. The distribution of species provides clues to how they evolved. For centuries naturalists have noted that similar creatures living in separate locations show differences in appearance and behavior, particularly when they do not interbreed. The unique plants and animals of islands have provided some of the most dramatic examples of evolution. The finches of the Galapagos Islands that inspired Darwin are one famous example.

Studies in genetics provide the third major field of evidence. Genes carry instructions for making proteins, basic to all life. An analogy to language is helpful in explaining how genetics helps us understand evolution. Genes speak a universal language using only four chemical letters. The structure of the DNA molecule, which carries the genes, is identical in all life; that is, it uses the same grammar. But the arrangement and number of genes varies widely among species. Thus each species has its own evolutionary story. Individuals have different versions of that story. Similarities and differences in genetic make-up, then, help scientists identify how closely or distantly related individuals and species are.

Beginning in the twentieth century, genetic research has added tremendously to the knowledge gained from fossils and biogeography. Together they show the astonishing diversity of life to be evolved, not a series of separate acts of creation.

What evidence is there that human beings are also evolved creatures?

Fossil discoveries show that human beings and monkeys, chimpanzees, and other primates can trace their lineage to a common ancestor living seven millions years ago. We humans share almost identical DNA and key protein molecules with chimpanzees. We also are the most recent descendents of a line of hominid creatures now extinct. The earliest fossils of our human-like ancestors are about 6.7 million years old. The first modern humans appeared 100,000 and 200,000 years ago.

Does this picture of human evolution conflict with the biblical statement that we humans are made in the image and likeness of God?

In Genesis, "image of God" is a *theological* notion. It refers to our ability to enter into an intimate relationship and communion with God, other human beings and the whole of creation. Theologians have interpreted it to refer also to those divine gifts of unconditional love and compassion, our intellectual and moral reasoning and imagination, our freedom, or our creativity. To think that these gifts may have been bestowed through the evolutionary process does not conflict with biblical and theological notions that God acts in creation.

Has the Episcopal Church spoken officially on evolution?

No. However, clergy and scientists from both the Catholic and Evangelical traditions in Anglicanism have accepted evolution from Darwin's time to the present. In a resolution passed by General Convention in 1982, the Church affirmed the ability of God to create in any form and fashion, which would include evolution. Several Anglicans and Episcopalians, some of whom are both theologians and scientists, are contributing to the development of new theologies of an evolving creation.

What are theologians saying about God's creating activities in light of modern scientific discoveries and theories?

While theologians have proposed different models of how God acts in an evolving world, they agree that God is best understood as *interacting* with the world rather than intervening in it--a God intimately present in the world (as Scripture also reveals) rather than a God "out there." According to Anglican priest and biologist Arthur Peacocke, God acts as Creator "in, with and under" the natural processes of chance and natural selection. Theologian Elizabeth Johnson writes that God uses random genetic mutations to ensure variety, resilience, novelty and freedom in the world. At the same time, the universe operates by certain natural laws or "secondary causes" by which God, the Primary Cause, ensures regularity and reliability in nature. Physicist Howard J. Van Till has written that God has creatively and generously given the creation all of the powers and capacities "in the beginning" that enable it to organize and transform itself into the variety of atoms, molecules, chemical elements, galaxies, stars, and planets in the universe, and species of living things on this earth.

In this evolving universe, God does not dictate the outcome of nature's activities, but allows the world to become what it is able to become in all of its diversity: one could say that God has a purpose rather than a fixed plan, a goal rather than a blueprint. As the nineteenth-century Anglican minister Charles Kingsley put it, God has made a world that is able to make itself. Polkinghorne states that God has given the world a free process, just as God has given human beings free choice. Divine Love (1 John 4:8) frees the universe and life to develop as they are able to by using all of their divinely given powers and capacities. The universe, as Augustine of Hippo said, is "God's love song." Because God's Love is poured out within the creation, theologian Denis Edwards asserts that "the Trinitarian God is present to every creature in its being and becoming." These are but some of the concepts that contemporary theologians are offering to account for God's relationship to an evolving creation.

How do these theological models of God's relationship square with the belief that God's sovereign power controls the universe?

Knowing the creation as evolving also helps us to think of God's relationship to the cosmos in another way. In Phil. 2:5-11, Christ is said to "empty himself" of divinity and take in human form the role of a servant. The Greek word for emptying is *kenosis*. A kenotic theology of creation expresses the notion that the Triune God freely and

graciously withdraws absolute power in order to "let the world be" (Genesis 1). A loving parent is faithful to her child, guides and protects him, but allows him to become his own self. In a comparable but more profound way, God the Divine Lover loves God's own creation, faithfully holding it in existence, calling it to greater levels of complexity and beauty, but allowing the physical laws that govern the galaxies, and those of chance, environment, and selection that govern life, to take cosmic and biotic evolution in whatever directions the gifts given to creation permit. God's kenosis gives the universe its freedom and opens up its future; God's covenantal faithfulness and natural laws ensure its cohesion and regularity.

If evolution is said to have taken billions of years, how is this consistent with the biblical six days of creation?

Early Church theologians like Basil of Caesarea (330-379 AD) and Augustine of Hippo (354-430 AD) said that the six days should not be understood as scientific chronology. Rather, they provide a *literary framework* that the inspired writer used to organize and present the various elements of the creation. They express a topical not a temporal order. Most biblical scholars now recognize that the six days also perform an important symbolic function: they convey that the commandment for a Sabbath day of rest was established at the very beginning of creation.

Why are many Christians opposed and hostile to evolution?

Many Christians have been taught to believe that evolution is opposed to creation, and that a believer cannot accept evolution and also believe in God. Neither of these assertions is true. Two alternatives to biological evolution put forth by some Christians are called "Young Earth Creationism" and "Intelligent Design."

What is "Young Earth Creationism"?

Young earth creationists interpret the creation stories in Genesis as historical and scientific accounts about the way God originated the universe. They believe that the earth and the whole cosmos were created in six literal twenty-four hour days some 6,000 years ago, and that God separately created each living "kind." They claim that there is scientific evidence to back up their interpretation of the Bible. However, they reject any evidence that does not fit their biblical interpretation, including all of the compelling evidence that the universe is billions of years old and that species have evolved. Young earth creationists oppose the teaching of evolution not only because it is contrary to their interpretation of the Bible but also because they believe that the teaching of evolution is responsible for changes in modern society they consider harmful to Christian morality.

How has the scientific community and other Christians responded to young earth creationism?

All but a very few natural scientists, including the great majority who are Christians, have rejected the scientific claims of the creationists, because the evidence both for an earth

and universe billions of years old and for biological evolution is decisive. Social scientists have pointed to the lack of evidence for making the teaching of evolution responsible for changes in morality that upset many Christians. Christian critics point out that its advocates mix science and theology together in a confusing manner and insist that their interpretation of the Bible must be accepted over contradictory scientific evidence, no matter how valid.

Has the Episcopal Church spoken on the creationists' claims?

In 1982, General Convention passed a resolution (a) to "affirm its belief in the glorious ability of God to create in any manner," (b) "and in this affirmation reject the rigid dogmatism of the 'Creationist' movement" and (c) further affirmed "our support of the scientists, educators, and theologians in the search for truth in this creation that God has given and entrusted to us."

What is "Intelligent Design"?

The proponents of the Intelligent Design Movement assert that it is possible to discern scientifically the actions of God in nature. They claim that certain features of living organisms are "irreducibly complex," too complex to believe that they could ever have developed through biological evolution. Therefore, they can be accounted for only by the direct action of an Intelligent Designer. Most advocates oppose biological evolution, which they equate with what they call "Naturalism." They define "Naturalism" as a philosophical belief system that claims that nature is all that exists, and therefore there is no God who acts in nature. To scientists, however, "naturalism" has a far different meaning: they seek to study and understand nature using methods that make no claims either for or against the existence of God."

How have the scientific and theological communities responded to the Intelligent Design Movement?

A few within the scientific community are persuaded by the arguments of Intelligent Design advocates, particularly by their writings on the various levels of complexity in organisms. Many Christians accept their arguments because they believe they confirm their faith in a creating God. However, the great majority of scientists agree that "Intelligent Design" advocates have not produced valid scientific research and evidence to back up their claims. Christian critics reject the notion that God should or can be brought in as a *part* of scientific explanation. The "Intelligent Design" argument implies that God has to step in from time to time to keep creative processes going because living things lack powers and capacities God did not give the universe earlier. Many critics assert that Intelligent Design advocates fail to distinguish between "evolutionism" as a philosophy and "evolution" as a science with a web of theories based upon a great deal of scientific evidence.

Has the Episcopal Church spoken officially on the claims of the Intelligent Design Movement?

No. Although some Episcopalians are attracted to this concept, many Anglicans and Episcopalians who are scientists oppose the Intelligent Design Movement for the same reasons the vast majority of other scientists do. They also reject the way Intelligent Design advocates meld together and confuse science and theology. Nature and Scripture present different kinds of truths about creation. It is not science's task to discover God in Nature; it is theology's task to proclaim the revelation of the creating God in Scripture.

Why cannot one speak of God's creation as the work of a Designer who manifests intelligence in the features observed in the universe?

One can maintain that God's creation shows design without agreeing with the arguments of the Intelligent Design Movement. Instead of implying a "Designer God" who from time to time intervenes in the creation, one may speak of a Creator who has built capabilities and processes for design into the very structure of the universe from its beginning. For example, many scientists have noted a remarkable set of coincidences in the values of the forces that hold atoms, molecules, stars and galaxies together. If any of these values were different by even the tiniest amount, our universe and life could not exist. These facts give Christians reasons to believe that we live in a created universe that has been given the capacities for design. But, this is a theological conclusion based upon an interpretation of scientific data and not a scientific argument for the existence of a Designer.

If new species arise through evolution, then why do creatures exhibit features that look like they are designed?

Theologians once argued that the structures of the heavens and the designs of living creatures provide evidences for the existence of God. We now know that the structures of matter and living things are actually the outcome of evolutionary processes. Design in living organisms is now understood to be an internal rather than an external process, their forms arising within the creatures themselves rather than being imposed from without. Theologically speaking, we can understand the powers and capacities in nature that produce evolving and emerging design in creatures as a sign of the giftedness of creation, and give glory to God for it.

If God creates through evolutionary processes, how may this awareness enhance my spiritual life?

The God of evolution is the biblical God, subtle and gracious, who interacts with and rejoices in the enormous variety, diversity, and beauty of this evolving creation. When we contemplate the tremendous gift of freedom God has bestowed upon the creation, and how the Holy Spirit preserves in covenantal faithfulness the physical laws, powers and processes that enable such variety and beauty, these thoughts may move our hearts to a deeper admiration, awe and gratitude for God's works. They may inspire a curiosity to know God's creation more deeply, celebrate it with thanksgiving, and devote ourselves to caring for it.

Part III: Caring for Creation

We acclaim you, holy Lord, glorious in power. Your mighty works reveal your wisdom and love. You formed us in your own image, giving the whole world into our care, so that, in obedience to you, our Creator, we might rule and serve all your creatures. (Eucharistic Prayer D, *Book of Common Prayer*, p. 373)

Give us a reverence for the earth as your own creation, that we may use its resources rightly in the service of others and to your honor and glory. (Prayers of the People, Form IV, *Book of Common Prayer*, p. 388)

What does it mean to "care for creation"?

It means that Christians are commissioned to model for all humankind how to love and serve this earth, the part of the creation upon which we dwell.

What is the source of this commission?

The Holy Bible declares our obligation to care for God's creation.

What specifically does the Bible say about this obligation?

Genesis 1:26-28 states that human beings are created in God's "image and likeness" and given dominion over all other creatures. "Dominion" does not mean "domination," but refers to the need for humans to exercise responsibility for the earth as God's representatives. In Genesis 2, the human beings are given the garden to tend and serve, symbolizing our obligation to care for creation. Human beings do in fact exercise dominion over "this fragile earth, our island home" (*Book of Common Prayer*, p. 370). God wills that we exercise it in accordance with God's desires and purposes. God declared the whole of creation to be "very good" (Gen. 1:31): earth and the life that dwells upon it have value in and of themselves. As "the earth is the Lord's and everything in it" (Ps. 24:1), we human beings are called upon to tend, serve, and protect the earth as a sacred trust for which we shall one day give an accounting.

What does "created in the image and likeness of God" mean in relation to our obligation to care for the creation?

The God who is Love unconditionally loves all of the creation and not merely us who are able to enter into a conscious relationship with God. We may express the divine image and likeness by loving the creation as God loves it, and by exercising stewardship and earth-keeping as an act of love.

Why is it difficult for human beings to love the creation as God loves it?

We humans have fallen into sin (Eucharistic Prayer A, *Book of Common Prayer*, p. 362), and expressions of greed, lust for power, neglect, and a willingness to turn a blind eye work against the mandate to be good stewards and keepers of God's good earth. Economic, political, and social structures and processes can also make this work difficult. But contrition, repentance, confidence in God's forgiveness and the power of God's grace, and amendment of life provide a pathway for carrying out earth-keeping as a labor of love.

What has science taught us about our relationship with the earth and its other creatures?

Science has taught us two important facts. First, all creatures including ourselves—every species of bacteria, archaebacteria, protist, fungi, plant and animal—are genetically related. Second, all living beings are bound together in countless ecological communities of life. Therefore, when we exercise stewardship, we are caring for an earth in which God has made everything interdependent. How we carry out this our primary vocation and ministry has great consequences for ourselves and for all of God's creatures on this good earth.

Why is this a time in which Christians should be especially concerned with the state of God's earth?

By the end of the twentieth century the human population had grown to six billion and by the mid twenty-first century it may increase to nine billion. These huge increases and the economic development that accompany them are harming the earth's ability to support both the human population and the rest of God's creatures. Thousands of species are dying off as they are being hunted or their habitats degraded or destroyed. The earth's air, waters, forests and soils are suffering more and more pollution and depletion. Less land for farming is available to feed this huge and growing population, and disease, malnutrition and starvation are ever-present facts for millions of people. Greatly expanding usage of fossil fuels contributes to global warming, with consequences not yet fully understood but possibly severe for the whole earth. The very beauty of the earth is in peril. Furthermore, the vast majority of earth's human population is made up of the poor, those on whom God's heart is especially fixed, as Jesus taught, and they suffer in greater proportions from this "groaning" of creation (Rom. 8:22).

Given these conditions how can we as Christians show our love for the creation and care for it in ways that meet these challenges?

We can show our love in at least two ways. First, those of us called to be scientists, engineers, and technologists may use our Spirit-inspired creative minds to contribute to creation's care through scientific discoveries and technological innovations. Second, all of us can exercise stewardship by prudently and sensibly using those elements of the creation we need to sustain our own lives and the generations to follow. At the same time, we can work to preserve whenever possible other creatures and their habitats. Specifically, we can care for the land upon which we dwell and grow our foodstuffs, by preserving or restoring the earth's soils, air, and water, and by protecting the creatures that form its ecological communities. Also, we can protect places of beauty that have value in themselves, feed our spirits, and support life for other species.

How can we sensibly use the things we take from the earth?

We can use fuels, crops and materials for housing, clothing, food, entertainment, and other purposes in a way that sustains these things for future generations and causes as little harm to the earth and other creatures as possible.

What can we do to preserve other creatures and their habitats?

We can learn about the great diversity of living things and their environments, and urge our neighbors, churches and governments to become better educated about regional, national and global pressures on the environment. With better knowledge we can do a better job of keeping species and their habitats free from harm.

What can we do to preserve the land upon which we dwell and raise crops?

In the spirit of the Old Testament instruction to give the land a Sabbath year's rest from planting crops (Lev. 25:7), we can promote wise farming techniques that preserve the land and avoid poisoning the soil, air and waters with excessive use of chemical fertilizers. We can seek to maintain or restore a wider diversity to the variety of plants and animals used for food. We also can find ways to preserve valuable farmland from thoughtless conversion to housing and commercial uses, and to create community gardens in city neighborhoods and small towns.

What can we do to preserve places of beauty and intrinsic value?

We can initiate, support and take part in the efforts of individuals, organizations and governments to set aside for both urban and rural residents places of beauty for their natural value and our delight and refreshment. Such places would include city, state, and national parks; ecological preserves; wilderness areas; green spaces in urban areas; and recreation sites. They would also include places of beauty designed by landscape architects and gardeners.

How can we as members of the Body of Christ act in all our caring for creation?

Those who are able to do so can choose lives of voluntary simplicity, rejecting habits of wasteful consumption and making thoughtful choices for decent living. As congregations we can practice conservation and care wisely for our church properties. As individuals and congregations we can become examples and provide leadership to our local communities of wise stewardship. Likewise we can seek to influence our governments to develop wise environmental policies.

Many Christians are suspicious of environmentalists and oppose activities to preserve the earth. What can we say to them?

We can invite them to study with us the biblical principles that show that caring for the environment is God's will. We can ask them to think of those who are not Christians but are working to preserve the environment as also caring for creation, whatever their reasons, and to work with them to carry out God's charge to the whole human family.

What can we say to Christians who believe that Christ will come again soon, and therefore there is no need to try to "save the environment"?

Scripture says that no one but the Father knows when the Christ will come again (Mark 12:32), and until he does we must continue to carry out God's commission to care for the earth. Even if the power by which God holds the whole world in existence were to be withdrawn next week, we still must give an accounting to Christ for our stewardship until that moment. We want him to say to us, "Well done, good and faithful stewards" (cf. Matt. 25:22).

What do we say to those Christians who say that Christ came only to save human souls and other creatures do not have souls. Therefore, we should only be concerned about saving souls and not the environment?

Christ is the Word through whom all things were made (John 1:3) and the one who holds all of creation together in himself (Col. 1:16-17). The New Testament teaches that Christ came to redeem the whole of creation and not merely human beings (Rom. 8:19-22; Eph. 1:10; Col. 1:20; 2 Cor. 5:19), and makes the sobering declaration that judgment awaits "those who destroy the earth" (Rev. 11:18). Therefore, we should be just as concerned about the physical state of the earth as we are with the spiritual state of God's human sons and daughters.

The problems facing our earth seem so enormous. How can Christians keep from becoming discouraged about the future, given these problems?

As Christians we have the power of the Holy Spirit and the indwelling Spirit of Christ to give us hope and courage. Confident in that power, cooperating with God, we may act with energy to make God's good earth a fit dwelling place for all of God's creatures, now and for the future.

APPENDIX I: SELECT BIBLIOGRAPHY

This list provides resources for those who wish to explore further the theological and scientific concepts and ideas presented in the Catechism. Entries marked with an asterisk indicate Anglican/Episcopal writers or web sites.

Part I: Theology of Creation

The Holy Bible (*Authorized Version and New Revised Standard Version). <u>Old Testament and Apocrypha</u>: Cosmology and Theology (Psalms 8:1-4; 89:11-12; 102:25-27; 104; 139:1-18; 148; Genesis 1:1-2:4; 2:4-2:24; Sirach 42:15-43:33; Job 12:7-10, 26:7-14, chapters 38-41; Jeremiah 10:11-13; 51;15-16). God: Creator and Redeemer (Isaiah chapters 40-43; Isaiah 45:12, 15-18, 21-23; Psalms 33; 74:12-23; 77; 136). Wisdom (Proverbs 8; Sirach 24:1-7; Wisdom 7:7-8:1).

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APPENDIX II: PREACHING ON CREATION: A LECTIONARY GUIDE Compiled by Josephine Borgeson

Often a preacher might emphasize creation on an "Earth Sunday," usually the Sunday nearest to Earth Day (April 22), or on the Sunday before the Rogation Days. Sometimes the sermon for St. Francis' Day (October 4) stresses creation themes. Preachers will also know that Trinity Sunday is an appropriate time to look at the activity of all three Persons in creation. When liturgists consider where scripture passages mentioning divine action in creation occur in the lectionary, though, they see that it is possible to stress creation themes year round.

Below, the scripture passages mentioned in the Catechism of Creation are listed again. Following them are notes showing when those passages, or portions of them, come up in the Episcopal Lectionary and the Revised Common Lectionary. Note that the seasonal festivals of lessons and music and a number of red letter days are not repeated in the RCL listings.

Scripture Passages mentioned in the Catechism of Creation

<u>Old Testament and Apocrypha</u>: Cosmology and Theology (Psalms 8:1-4; 89:11-12; 102:25-27; 104; 139:1-18; 148; Genesis 1:1-2:4; 2:4-2:24; Sirach 42:15-43:33; Job 12:7-10, 26:7-14, chapters 38-41; Jeremiah 10:11-13; 51;15-16). God: Creator and Redeemer (Isaiah chapters 40-43; Isaiah 45:12, 15-18, 21-23; Psalms 33; 74:12-23; 77; 136). Wisdom (Proverbs 8; Sirach 24:1-7; Wisdom 7:7-8:1). <u>New Testament</u>: Christ the Creator (I Corinthians 8:6; Colossians 1:9-23; Hebrews 1:1-13 [cf. Psalms 102:25-27; 110:1]; John 1:1-14). Christ and the New Creation (Romans 8:18-25; 2 Peter 1:1-8; Revelation 4:11; 21-22:5).

Creation passages in the Episcopal Lectionary (*The Book of Common Prayer*, 1979)

Year A

Advent and Christmas Festivals of Lessons and Music Gen 2:4ff.

Christmas Day III Hebrews 1:1-12 John 1:1-14

Christmas Festival of Lessons and Music Gen 2:4ff. Hebrews 1:1-12 John 1:1-14

First Sunday after Christmas Day John 1:1-14

Holy Innocents, December 28 Revelation 21:1-7

Holy Name, January 1 Psalm 8

The First Sunday after the Epiphany, The Baptism of Our Lord Psalm 89:11-12 Isaiah 42:1-9

Third Sunday after the Epiphany Psalm 139:1-17

First Sunday in Lent Genesis 2:4ff.

Second Sunday in Lent Psalm 33:12-22

St. Joseph, March 19 Psalm 89:11-12

Palm Sunday Isaiah 45:21-23

Monday in Holy Week Isaiah 42:1-9

The Great Vigil of Easter Psalm 33:1-11 Genesis 1:1 -2:2

Easter Day, evening service Psalm 136

Thursday in Easter Week Psalm 8

Sixth Sunday of Easter Psalm 148 Isaiah 41:17-21 The Day of Pentecost, Early or Vigil Service Psalm 33:12-22 Romans 8:18-25

The Day of Pentecost, Principal Service Psalm 104:25-37

Trinity Sunday Genesis 1:1—2:3

St. Barnabas, June 11 Isaiah 42:5-12

Proper 8 Psalm 89:11-12

Proper 11 Romans 8:18-25

Holy Cross Day, September 14 Isaiah 45:21-25

Year B

Advent and Christmas Festivals of Lessons and Music Gen 2:4ff.

Christmas Day III Hebrews 1:1-13 John 1:1-14

Christmas Festival of Lessons and Music Gen 2:4ff. Hebrews 1:1-13 John 1:1-14

First Sunday after Christmas Day John 1:1-14

Holy Innocents, December 28 Revelation 21:1-7

Holy Name, January 1 Psalm 8 The First Sunday after the Epiphany, The Baptism of Our Lord Psalm 89:11-12 Isaiah 42:1-9

Fourth Sunday after the Epiphany 1 Corinthians 8:6

Seventh Sunday after the Epiphany Isaiah 43:18-25

St. Joseph, March 19 Psalm 89:11-12

Palm Sunday Isaiah 45:21-23

Monday in Holy Week Isaiah 42:1-9

The Great Vigil of Easter Psalm 33 Genesis 1:1 -2:3

Easter Day, evening service Psalm 136

Tuesday in Easter Week Psalm 33:18-22

Thursday in Easter Week Psalm 8

Sixth Sunday of Easter Psalm 33 Isaiah 45:11-13, 18-19

The Day of Pentecost, Early or Vigil Service Psalm 33:12-22 Romans 8:18-25

The Day of Pentecost, Principal Service Psalm 104:25-37

Proper 2 Isaiah 43:18-25 St. Barnabas, June 11 Isaiah 42:5-12

Proper 7 Job 38:1-11, 16-18

Holy Cross Day, September 14 Isaiah 45:21-25

Proper 22 Psalm 8 Genesis 2:18-24

Year C

Advent and Christmas Festivals of Lessons and Music Gen 2:4ff.

Christmas Day III Hebrews 1:1-13 John 1:1-14

Christmas Festival of Lessons and Music Gen 2:4ff. Hebrews 1:1-13 John 1:1-14 First Sunday after Christmas Day John 1:1-14

Holy Innocents, December 28 Revelation 21:1-7

Holy Name, January 1 Psalm 8

The First Sunday after the Epiphany, The Baptism of Our Lord Psalm 89:11-12 Isaiah 42:1-9

Fifth Sunday in Lent Isaiah 43:16-21

St. Joseph, March 19 Psalm 89:11-12

Palm Sunday

Isaiah 45:21-23

Monday in Holy Week Isaiah 42:1-9

The Great Vigil of Easter Psalm 33 Genesis 1:1—2:3

Easter Day, evening service Psalm 136

Tuesday in Easter Week Psalm 33:18-22

Thursday in Easter Week Psalm 8

Third Sunday of Easter Psalm 33

Sixth Sunday of Easter Revelation 21:22—22:5

The Day of Pentecost, Early or Vigil Service Psalm 33:12-22 Romans 8:18-25

The Day of Pentecost, Principal Service Psalm 104:25-37

Trinity Sunday Revelation 4:11

St. Barnabas, June 11 Isaiah 42:5-12

Proper 10 Colossians 1:9-14

Proper 14 Psalm 33

Holy Cross Day, September 14 Isaiah 45:21-25 Proper 29, The Last Sunday after Pentecost Colossians 1:11-20

Creation passages in the Revised Common Lectionary Year A

Christmas Day III Hebrews 1:1-12

Holy Name, January 1 Psalm 8

Second Sunday after Christmas Day Sirach 24:1-7 John 1:1-14

First Sunday after the Epiphany, the Baptism of Our Lord Isaiah 42:1-9

First Sunday in Lent Genesis 2:15-17

Monday in Holy Week Isaiah 42:1-9

The Great Vigil of Easter Psalm 136 Genesis 1:1—2:4 Proverbs 8

Trinity Sunday Psalm 8 Genesis 1:1—2:4

Proper 5 Psalm 33:1-12

Proper 11 Psalm 139:1-11 Romans 8:12-25

Year B

Second Sunday of Advent Isaiah 40:1-11 Christmas Day III Hebrews 1:1-12

First Sunday after Christmas Day Psalm 148

Holy Name, January 1 Psalm 8

Second Sunday after Christmas Day Sirach 24:1-7 John 1:1-14

First Sunday after the Epiphany, The Baptism of Our Lord Genesis 1:1—2:4

Second Sunday after the Epiphany Psalm 139:1-6, 13-18

Fourth Sunday after the Epiphany I Corinthians 8:6

Fifth Sunday after the Epiphany Isaiah 40:21-31

Seventh Sunday after the Epiphany Isaiah 43:18-25

Monday in Holy Week Isaiah 42:1-9

The Great Vigil of Easter Psalm 136 Genesis 1:1—2:4 Proverbs 8

Day of Pentecost Romans 8:22-25

Proper 4 Psalm 139:1-6, 13-18

Proper 7 Job 38:1-11 Proper 19 Wisdom 7:26—8:1

Proper 22 Psalm 8 Genesis 2:18-24 Hebrews 1:1-4

Proper 24 Psalm 104 Job 38:1-7(34-41)

All Saints' Day Revelation 21:1-6a

Year C

Christmas Day III Hebrews 1:1-12

First Sunday after Christmas Day Psalm 148

Holy Name, January 1 Psalm 8

Second Sunday after Christmas Day Sirach 24:1-7 John 1:1-14

First Sunday after the Epiphany, the Baptism of Our Lord Isaiah 43:1-7

Fifth Sunday in Lent Isaiah 43:16-21

Monday in Holy Week Isaiah 42:1-9

The Great Vigil of Easter Psalm 136 Genesis 1:1—2:4 Proverbs 8

Fifth Sunday in Easter Psalm 148 Revelation 21:1-6

Sixth Sunday in Easter Revelation 21:10, 22—22:5

Day of Pentecost Romans 8:18-25

Trinity Sunday Psalm 8 Proverbs 8

Proper 8 Psalm 77

Proper 11 Colossians 1:15-28

Proper 14 Psalm 33

Proper 18 Psalm 139:1-18

Proper 29, The Last Sunday after Pentecost Colossians 1:11-20