

By Design or by Chance?

A Study Course in the Intelligent Design Controversy

Getting Started

Introduction

By Design or by Chance? is a lively overview of the growing intelligent design controversy that introduces students to a wide range of scientific topics such as biology and cosmology in the context of history and current events. The course was developed by Access Research Network (ARN) and author Denyse O’Leary based on her recent book *By Design or by Chance?* (Augsburg Fortress, 2004), which has been widely praised for its clarity, even-handedness, high interest level, and use of teaching elements. As both a journalist and a textbook editor, O’Leary offers a unique background that is well suited for a course of study in intelligent design.

The course includes self-test instruments for each chapter and an end-of-course project that requires the student to address the current intelligent design controversy. The student will prepare a written, oral, broadcast, or art/performance project that demonstrates awareness of the issues and offers a personal response.

The course is aimed at students at high school achievement level, with an interest in science, civics, and current events. It may be especially helpful for students who struggle with science concepts, because it helps them see how these concepts are relevant to society. The course is designed for self-study, homeschool, and private or public school classroom use.

The course is available in three editions: Standard, Deluxe, Advanced. The **Standard Edition** includes a copy of the book *By Design or by Chance* and this study guide. Reading assignments from the book are presented at the beginning of each lesson. It is not necessary to purchase any additional resources to complete the Standard 10-lesson course. However, many of the optional challenges refer to recommended books and videos that will allow the student to delve deeper into the topic or to reinforce points made in the lesson. Some of these resources can be found at your local library or bookstore, and all of them are available for purchase from the ARN website (www.arn.org) or by using the product order form located at the back of the study guide. The ARN catalog number (ARN Cat#) is provided for each recommended resource and you can find a further description of each item online. The **Deluxe Edition** includes several popular documentary videos on the origins controversy: *Icons of Evolution*, *Unlocking the Mystery of Life*, and *The Privileged Planet*. The **Advanced Edition** includes other key resource books, as well as ARN interview, debate, and lecture videos by noted educators and scientists. The Deluxe and Advance Editions make these valuable resources available at a special discount price.

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As befits the fact that the author is a journalist, this Study Guide treats the intelligent design controversy in terms of current events/current history. Many cross-curricular links to arts, history, literature, sciences, social sciences, and other subjects are provided. The student is encouraged to consider a variety of related themes in art, culture, philosophy, science, and modern history.

Because the course provides a wealth of suggested exercises, a program can easily be tailored to the needs and interests of an individual student. It is *not* anticipated that every student attempt every question or exercise. However, by utilizing the additional resources, challenges and projects, it is possible to expand this ten lesson course into a semester-long or year-long course.

To get the most out of the Study Guide, the student should follow the controversy around Darwinism vs. intelligent design while working through the lessons. The cut and thrust of the real-life debate brings the subject to life! The Access Research Network Web site (www.arn.org) is a convenient source of breaking news. Many news organizations archive their recent stories as well.

Organization of the Study Guide

The chapters of the *Study Guide* do not bear the same titles as the chapters of *By Design or by Chance?* because most of the chapters of the *Guide* cover several chapters of the book. The book has an Introduction followed by 16 chapters and an Afterword, but this course is designed to cover ten lessons. The chapters that each lesson addresses are identified in the lesson title. It is recommended that the student read the relevant chapters before beginning each lesson.

Structure of Lessons

Lesson 1 focuses on the Introduction of *By Design or by Chance?* and takes a little time to clarify the terminology of the debate. Understanding the terminology is very important for critical analysis. Lesson 2 addresses Chapters 1 and 2 of the book.

The first nine lessons are structured according to the following example:

Topic title The topics are numbered and titled. Immediately following, you will find the pages included in the topic plus the numbers of the end notes and the page numbers on which the end notes are found.

Summary The summary of the assigned reading is provided so that students can be clear about the main points that are addressed. These summaries are not intended to substitute for reading the text of the book.

Think about it This feature helps a student think about basic concepts or problems. Students may benefit from writing about concepts or problems that especially interest them in a personal journal.

Apply it This feature helps the student apply current learning to the intelligent design controversy. Students should not approach these questions as “assignments.” They are an invitation to think critically and carefully about what we hear in the media and daily life. However, a student who is considering a Challenge or Project on a topic related to the *Apply it* question should keep notes on any observations made. (See *Challenge* and *Lesson 10 Project* below.)

Study Hint (one per chapter) The hints give advice for using a specific instrument such as a timeline or a specific method such as taping a broadcast, in order to master the material efficiently.

Challenge Each challenge promotes skill in a specific subject area (for example, arts, current events, history, religious studies, or science). Where two challenges are given in the same subject area, the second is more demanding than the first. Challenges should be chosen based on the student’s interests and needs. One approach, for example, might be to have the student select the challenge in one lesson and the instructor select the challenge in the next, to assure a balance between interests and needs.

They said it! – Quotes to ponder Some of these quotations can also be found in *By Design or by Chance?* but others are new. They are intended to help the student focus on a key element of the debate.

Self-Tests Each lesson is followed by two self-tests. *Self-test a* tests knowledge only. *Self-test b* tests understanding of concepts as well as knowledge, and is therefore more demanding. It is the author’s view that students should be permitted to check references while writing a test in current history. This policy reduces the accidental “learning” of mistakes. If the instructor wishes to make a test more rigorous, a time limit should be set. The time limit encourages the student to be well prepared in advance.

Web links The links given were active in October 2004. Generally, they provide useful information. If an instructor doubts the value of a link, monitoring or discontinuing its use is advised.

Further reading/viewing These additional materials, almost all of which are available from Access Research Network (www.arn.org), round out the student’s understanding.

Lesson 10 Project

Lesson 10 is a project that gives students a chance to express their own take on the intelligent design controversy. Each project ends with a concrete product, typically a report, presentation, work of art, performance, or science fair project.

The list of suggested projects derives from the Challenges, so many students will want to take a Challenge that they have already accepted and develop it into the Project. The last Project, a survey of public opinion (Social Sciences), should be attempted by a group.

Additional Teaching Notes

End notes

Students are encouraged to read the extended notes at the back of *By Design or by Chance?*, as well as the text. However, the text stands on its own, so a student who is struggling or apt to be distracted might best forego the notes until confidence with the text of the book is assured.

Web Links

The site for *By Design or by Chance?*, [designorchance.com](http://www.designorchance.com) provides Web links from the book. Go to <http://www.designorchance.com/links.html> It will be available by December 15. Use of links approved by the instructor will save the student considerable time.

Mature content issues

In Lesson 3.3, the student is directed as follows:

Apply it. Read a play or novel from the existentialist school of literature, for example, the first Act of Samuel Beckett's *Waiting for Godot* (see Web links below for the Act One on line). What does the work assume to be bedrock fact about the universe?

Study hint. Literature written by twentieth-century authors who believe that no moral or spiritual values underlie the universe (nihilism) can be grim reading. We must ask: What underlying assumptions support the author's point of view? Are they founded in fact?

Some students will benefit from reading portions of a play that clearly expounds the idea of the meaningless universe. On the other hand, the instructor may judge that an individual

student should not read a powerful existentialist work, in which case the item can be skipped.

Similarly, it is sometimes suggested that the student read excerpts from the works of Darwinian evolutionists such as Richard Dawkins or Stephen Jay Gould. The author of *By Design or by Chance?* is of the opinion that students should study all sides of a controversy, but discretion in an individual case belongs to the instructor.

Suggested Reading for Instructors

To understand the background to the issues that students are addressing in this course, instructors may wish to read one or more of the following works:

- *Darwinism, Design, and Public Education* by John Angus Campbell and Stephen C. Meyer (eds) (East Lansing: Michigan State University Press, 2003), offers a serious look at what students should learn, featuring input from both Darwinists and design advocates. (ARN Cat# B080)
- *From Darwin to Hitler* by Richard Weikart (New York: Palgrave MacMillan, 2004). This book provides a history of Social Darwinism in the early twentieth century. It provides more insight into why “Darwin in the school system” has been controversial. (ARN Cat# B089)
- *God and the Astronomers* by Robert Jastrow (ed.) (New York: W.W. Norton, 1992) helps us see why modern cosmology does not uphold the idea of a universe without God. (ARN Cat# B043)
- *Law, Darwinism, and Public Education* by Francis Beckwith (Washington: Rowman & Littlefield, 2003) provides an exhaustively researched case for teaching about intelligent design. (ARN Cat# B071)
- *Modern Cosmology and Philosophy* by John Leslie (ed.) (Amherst, New York: Prometheus, 1998) brings you up to date on modern cosmology, relativistic theories of the universe, the Big Bang, the problem of God and creation, cosmology and verifiability, coincidences, origins and evolution, multiple universe theories, infinity, chaos, life forms, the end of time, and the limits of our knowledge. (ARN Cat# B035)
- *The Soul of Science* by Nancy R. Pearcey and Charles B. Thaxton (Wheaton: Crossway, 1994) makes the case that science in the West has progressed because of Christian belief, rather than in spite of it. Belief that the universe proceeds according to God-given laws in an orderly way was critical for the advance of science. (ARN Cat# B099)

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