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SHOULD INTELLIGENT DESIGN BE TAUGHT IN SCHOOL?

Word Generation - Unit 2.17

Focus Words

design | creationism | concept | evolve | perspective



WEEKLY PASSAGE

Bethany Collchay’s parents want Bethany to believe exactly what it says in the Christian Bible. The Bible says that God created human beings and all the plants and animals. At Bethany’s school, however, the science teacher says that living things **evolve**. This idea was first written about in a book by Charles Darwin that came out in 1859. Darwin’s theory of evolution says that humans and other animals developed from common ancestors over millions of years. This theory explains similarities and differences among species. It also explains why some species survived while others became extinct. When scientists study fossils from millions of years ago, they find evidence that supports what Darwin said. Changes in flu viruses and in color patterns on birds and fishes show that evolution is going on right now.

While scientists argue that evolution is undeniable, people like Bethany’s parents have the right to their religious beliefs. Bethany’s parents don’t want anything to threaten their child’s religious beliefs. When schools teach about evolution, some people fear a child’s belief in **creationism** could be threatened. So such people are asking schools to teach intelligent **design** along with evolution. The central **concept** behind intelligent design is that living things must have been designed by an intelligent being. Supporters ask us to think about the eye. An eye has to be created all at once with all its parts, they say, or it won’t work. Even though the law in America does not allow public schools to teach religion, intelligent design doesn’t name the designer or use the word “God,” so many argue that teaching about it would not break the law.

Scientists, however, are against teaching intelligent design. They say intelligent design is not science. It doesn’t explain how living things came about or why some are like each other. It doesn’t fit with evidence, and doesn’t predict anything. Therefore, intelligent design is not a scientific **perspective**, but a religious one.

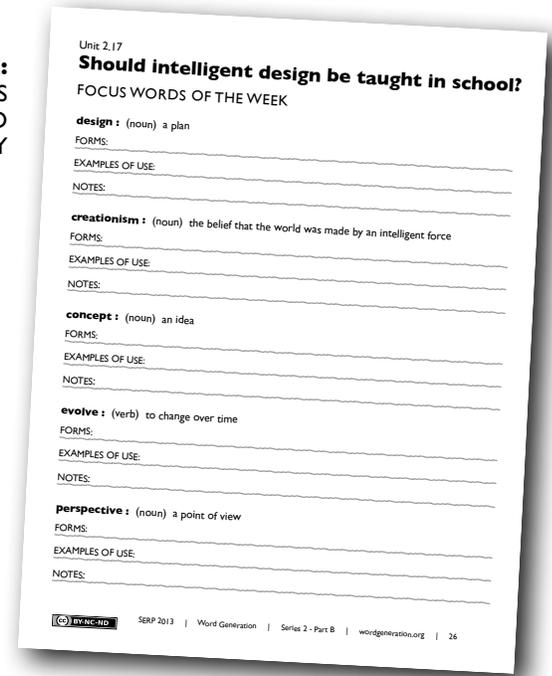
What do you think? Should schools teach intelligent design along with evolution?

TEACHER

Reading Comprehension/Discussion Questions:

- ▶ What is the relationship between creationism and “Intelligent Design”?
- ▶ What is the difference between evolution and creationism?
- ▶ Why are scientists against teaching “Intelligent Design”?
- ▶ Do you think that what a student learns in school might threaten his/her religious beliefs?

PLEASE NOTE:
THE STUDENT VERSION OF THIS
PAGE IS FORMATTED
DIFFERENTLY



Unit 2.17

WORD CHART FOR TEACHERS

This chart is not in the student book. It is a resource for teachers to support students in the use of the focus words each week. Students are provided one page in each unit immediately following the weekly passage with a basic definition printed and space for taking notes.

Word	Meaning	Forms			Related Words
		Inflectional	Basic Word Classes	Prefixes/Suffixes	
design	(n.) - a plan	designs (pl.) design (v.) designed designing designs		designer designable designate	designate
creationism	(n.) - the belief that the world was made by an intelligent force	create creates created creating	creation	creationist	creative
concept	(n.) - an idea	concepts (pl.)	conceive (v.)	conceptual conception conceptual misconception	
evolve	(v.) - to change over time	evolves evolved evolving		evolvment evolvable evolution evolutionary	revolve devolve
perspective	(n.) - a point of view	perspectives (pl.)		perspectival perspectiveless	spectator speculate

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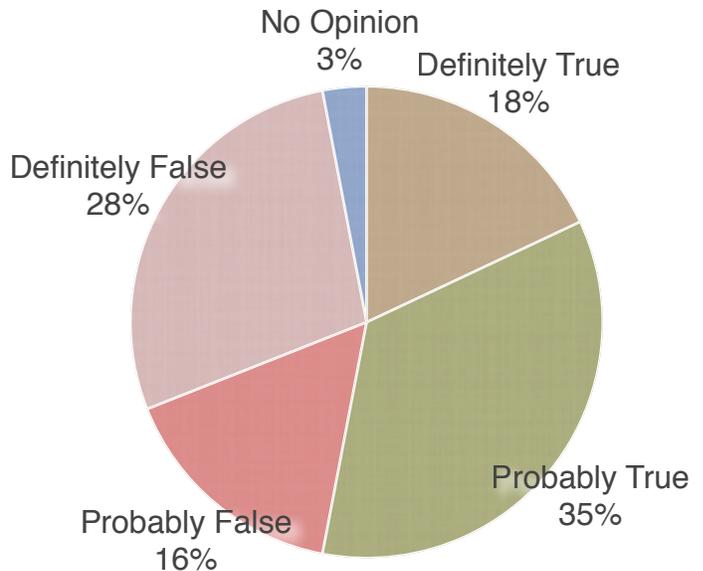


PROBLEM OF THE WEEK

Scientists believe that humans and chimpanzees both **evolved** from an ancestor that lived 5-7 million years ago. Supporters of intelligent **design**, or **creationism**, disagree. In the poll below, people give their **perspectives** on the debate.

In June 2007, people were asked this question:

What do you think about **evolution**, or the **concept** that humans and apes have a common ancestor?



USA Today/Gallup

Option 1: Which of the following is true?

- A) Half of the people polled thought **evolution** was probably or definitely true.
- B) More than half of the people polled thought **evolution** was probably or definitely true.
- C) Less than half of the people polled thought **evolution** was probably or definitely true.
- D) None of the above.

Option 2: According to this poll, what is the probability that any two people chosen at random *both* think that **evolution** is probably or definitely true?

Answer: $.53 \times .53$, or about 28%

Discussion Question: Forty-four percent of the people polled think that **evolution** is probably or definitely false. Many of these people believe that **creationism** and/or intelligent **design** are better explanations for where human beings came from. However, 53% of people think that evolution is probably or definitely true. Why do people disagree so strongly about the **concept** of **evolution**? From your **perspective**, does this disagreement make sense? Do you have strong feelings about **evolution**?

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THINKING SCIENTIFICALLY

Ms. Kahn's science class is studying the **concept** of natural selection, which Charles Darwin used to explain how living things **evolve** over time. Some students, however, don't believe in Darwin's explanation.

"I think that learning about evolution in science class conflicts with my religious **perspective**," says Victor. "I've learned about intelligent **design**, and my dad says it should be considered a scientific theory just like Darwin's."

"What?!" exclaims Kareema. "Intelligent design isn't scientific at all! My mom says it's **creationism** disguised as science. If some intelligent being created and designed all life on Earth, then who or what created that intelligent being? Can you and your dad explain that, Victor?"

"Hold on, Kareema," says Ms. Kahn. "We can address your disagreement with Victor by investigating how we decide if something is indeed 'science.' Let's consider some criteria for what makes a theory scientific, and then you and Victor can decide for yourselves."

→ Kareema and Victor looked online and found the following list of criteria for judging whether or not a theory is scientific.

In order to be considered "scientific," a theory should have most or all of the following characteristics. It should be...

- consistent** (not contradicting itself)
- as **simple** as possible (not proposing elaborate explanations that go beyond available evidence)
- useful** (explaining past observations and making predictions about future observations)
- testable** (able to be confirmed or disproved by experiments or observations)
- replicable** (supported by repeated observations or experiments producing the same results)
- progressive** (improving on previously theories)
- revisable** (open to change based on new evidence)

 With a partner, discuss whether or not intelligent design is a scientific theory based on the above criteria. Try to use the target words (design, creationism, concept, evolve, and perspective).

TEACHER

Most scientists do not regard intelligent design as a scientific theory. Among their other objections, scientists typically argue that intelligent design fails the *simplicity* test (by positing an intelligent agent as the source of life without explaining the source of that intelligent agent); the *usefulness*, *testability*, and *replicability* tests (because it does not point to predictions that could be empirically tested in controlled, repeated experiments to confirm or disprove the theory); and the *revisability* test (because the conclusions of intelligent design often seem to be fixed—for example, when shown evidence of "bad design" in nature, defenders of intelligent design often argue that the designer may have motives that we cannot understand for making things that appear poorly designed, in effect denying that there could be any evidence that would challenge their theory.)

For more on scientific theories, see:

American Association for the Advancement of Science. "Scientific Inquiry: Scientific Theories." *Atlas of Science Literacy: Volume 1*. NSTA (2001): 20-21.

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DEBATING THE ISSUE

Get ready...

Pick one of these positions (or create your own).

A Because of the separation between church and state, schools shouldn't have to teach intelligent design or creationism.

B Intelligent design is not a religious view and should be taught alongside evolution in schools.

C Schools should teach all viewpoints to round out their students' education.

D Parents should decide what they want their children to be taught. If a parent objects to a class, that parent's child should be excused from the class.

E _____

TEACHER
Whatever the debate format, ask students to use academically productive talk when arguing their positions. In particular, students should provide reasons and evidence to back up their assertions. It may be helpful to read these sample positions to illustrate some possibilities, but students should be encouraged to take their own positions about the issue at hand.

Get set...

Be ready to provide evidence to back up your position during your class discussion or debate. Jot down a few quick notes:

GO!

Be a strong participant by using phrases like these.

I believe that...

I agree with you, but...

You make a good point, but have you considered...

Can you show me evidence in the text that...

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WRITE ABOUT IT

Support your position with clear reasons and specific examples.
Try to use relevant words from the Word Generation list in your response.

Focus Words

design | creationism | concept | evolve | perspective

TEACHER

Ask students to write a response in which they argue a position on the weekly topic.

Put the writing prompt on the overhead projector (or the board) so that everyone can see it. Remind students to refer to the word lists in their Word Generation books as needed.