

**MODEL UNIT
BAND C
LEVEL 3**

ORIGIN OF THE UNIVERSE

LIFE CONCEPT: GOD CREATED THE UNIVERSE

YEAR: **SUGGESTED DURATION** 4 weeks (approx 135 minutes per week)

DATE OF USE: **FAITH STATEMENTS:** ① ② 3

UNIT-SPECIFIC GOALS (highlighted)

1 GOD CREATED ALL THINGS

- 1a** identify what the biblical accounts of creation reveal about God
- 1b** investigate the vastness and complexity of the universe to consider what it reveals about God
- 1c** examine the Christian belief that God’s creation is ‘good’
- 1d** explore theories concerning the origin of the universe

2 GOD TAKES CARE OF HIS CREATION

- 2a** examine the Christian view of the interdependence and harmony of the universe
- 2b** investigate the place of technology and science in God’s preservation of his creation
- 2c** explore the Christian belief that God is in control of the universe

3 GOD WANTS PEOPLE TO TAKE CARE OF HIS CREATION

- 3a** investigate the biblical teachings about conservation of creation
- 3b** investigate the impact of human lifestyle on the universe
- 3c** consider their personal responsibility to care for the environment

STUDENT ASSESSMENT

ASSESSABLE STUDENT OUTCOMES

- List the key features of the Genesis accounts of creation. (1a)
- Interview Christians and report on what they believe about the universe and how it came into being. (1c, 2a, 2b)
- List the principles of theories concerning the origin of the world. (1d)
- Research and record scientific discoveries which explain laws of nature. (1b,2a)
- Respond in writing to Bible passages which relate to God’s control of the universe. (2c)

ASSESSMENT STRATEGIES

- ⇒ group work, observation/class discussion
- ⇒ interview and work sample
- ⇒ work sample
- ⇒ work sample
- ⇒ work sample

UNIT SUMMARY

Students investigate the question: How did the universe begin? Students consider scientific explanations and different Christians beliefs about the creation of the world.

UNIT NOTES

The text *A Guide to Science and Belief* by Michael Poole, published by Lion Publishing, is an excellent resource for teachers in preparation for teaching this unit.

As you work on the unit, skim newspapers for articles about scientific discoveries. Up-to-date information will highlight science's ongoing and changing explanations of the world.

Students keep a journal in which they record their thoughts and questions. For more information on journals see the glossary.

INTRODUCTION

1. THE ORIGIN OF THE WORLD

Focus on what the students already think about the origin of the world. Listen to all responses.

Discuss journal expectations. See Teacher Resource Sheet TRS C3/1.

Students write in their journals personal responses to the following questions:

- How do I think the world came into being?
- Where do I think people come from?

Share their responses as a class.

Tell students that these questions have challenged people since the beginning of time. The students will consider different ways people answer the questions.

Compile a list of questions students have about the origin of the world, eg

- Who made the world?
- Where did people come from?
- Can Christians believe in evolution?
- What do Christian scientists believe?

Brainstorm strategies and resources which would help students find answers to their questions about the world's origin, eg

- investigate the Bible
- interview a pastor
- invite a science teacher to speak
- use encyclopedias
- write to an expert.

DEVELOPMENT

2. SCIENTIFIC EXPLANATIONS

As you explore scientific explanations of how the world began, avoid placing science and religion in opposition. Science and religion have different purposes. Science explains the

world around us and religion explains the purpose of the world and who created it.

Define the terms 'theory' and 'fact' using various dictionaries. Discuss:

- What is the difference between facts and theories?
- Do you think scientific explanations of the origin of the universe are facts or theories? Why?

Provide students with TRS C3/2 which describes some of the different theories people have had about the earth over the centuries. Discuss and highlight that scientists continue to explore how the world came into being. Current thinking has two major theories which explain how the universe, the world and living creatures came into being. These theories are the 'Big Bang' and evolution.

Research the principles of the 'Big Bang' and evolution in encyclopedias, the Internet and non-fiction texts. Students could interview a science teacher to gain information. Students record information about the theories as responses to the following questions:

- How does the theory explain the origin of the world?
- What does the theory say about the origin of living creatures?
- What questions is the theory unable to answer?
- What questions does this theory raise for you?

Discuss the results of the investigation.

- What is science helping people understand about the world?
- How have technological and scientific discoveries changed the way we view the world?

Tell students that science has also been able to identify many of the laws of nature which operate in the world. Students investigate and record information about laws of nature and the complexity of the universe. They may research

people, eg

- Isaac Newton
- Albert Einstein
- Edwin Hubble

topics, eg

- thermodynamics
- gravity
- photosynthesis.

Alternatively, invite a physics, chemistry or science teacher to present a lesson which will assist the students to grow in awareness of the systems and laws which order the world.

Discuss with the students:

- Science has been able to identify the laws and systems of organisation. What are the

benefits of knowing about the systems and order of the universe?

- How does science explain the way the laws and systems came into being?
- Is science able to explain why the laws exist?
- How does scientific knowledge help people live in the world?
- Some people say: 'Science has all the answers!' How would you respond to the statement?

3. THE BIBLE ACCOUNT

The Genesis account is not a scientific report about what happened at creation. It is the story that God gave to his people to reveal himself as Creator and his relationship to creation. It calls for faith, not for scientific investigation.

In groups students read Genesis 1:1 – 2:4, and use Bibles, Bible handbooks, Bible encyclopedias to research the questions on TRS C3/3. Students may divide the questions among group members.

Students read the second Genesis account of creation in Genesis 2:4–25 and other accounts of creation in the Bible, eg Job 38:2 – 39:29; Psalm 148. Students respond to the questions on TRS C3/3.

Groups summarise their findings on posters displaying the information the Bible provides about the universe and its origin.

Share the posters and ask the students to consider the purpose of the Bible's information about the universe and its origin by examining the posters.

TRS C3/4 contains statements relating to ways Christians interpret the Bible's message about the universe and its origin. Teachers may choose appropriate statements for their students from the TRS. Students discuss the statement considering what it says about the Bible's account of the origin of the universe.

4 WHAT CHRISTIANS BELIEVE

This might be an ideal time to invite your pastor to talk to the class.

In small groups read the explanation of the first part of the Apostles' Creed in *Luther's Small Catechism*. Highlight information that relates to the world's beginning.

Students skim through the catechism to find anything further that relates to the origin of the universe.

Interview Christian people to find out what they believe about creation. Choose people who express different Christian views, eg a Christian who believes creation included the evolutionary process, a Christian who focuses on the truths in the story and is not troubled by 'how God actually' created.

Research to find out what Christians believe about creation, using as many Christian resources as possible, eg *Good Question; Real Questions; Key Christian Beliefs*. Students record information in their journals.

Discuss:

- What is the most important message in the Bible about the universe and its origin?
- What do most Christians believe about the universe and its origin?

Provide time for students to reflect in their journal on these questions.

RESPONSE

5. MY BELIEFS ABOUT CREATION

Students write a personal statement of what they believe about the beginning of the world.

Share these belief statements in groups, and/or teacher can respond to them individually.

Students may display their belief statements.

6. CREATION EXPLAINED

Students work with a partner or in groups and choose one of the following:

A Current Affairs Program Brainstorm a list of common questions about the beginning of the world. Students write responses to the questions, using information from the unit. Students present the information in the form of an interview for a current affairs program. Students may video the interview or present it live. Encourage them to consider using visual aids to present their information.

Non-fiction Text Students write a non-fiction book about creation. The text includes information on:

- the relationship between science and religion
- scientific explanations of the universe
- the purpose of the Bible's accounts of creation
- Christian beliefs about the origin of the universe.

YOU WILL NEED

- | | |
|--|---|
| <input type="checkbox"/> Bible | <input type="checkbox"/> non-fiction texts with information about evolution and the 'big bang theory' |
| <input type="checkbox"/> <i>Luther's Small Catechism</i> | <input type="checkbox"/> Bible encyclopedias, Bible handbooks |

INTEGRATING INTO OTHER CURRICULUM AREAS

THE ARTS: *Media:* Experiment with words, sounds, images for different effects and to present different points of view. Use media technology.

ENGLISH: *Literature:* Develop an understanding of why readers' interpretations of texts may vary. Explain and justify own opinions about texts. Find and cite elements of a text to support a point of view. *Everyday texts:* Identify features of non-fiction texts. Reading and thinking activities. Discussion of questions posed by teachers. Write widely. Develop discussion and problem-solving skills.

SOCIETY AND ENVIRONMENT: Identify information sources. Identify similar data from different sources. Draw conclusions, identify, analyse, clarify values. Group skills, belief systems, points of view comparisons.

UNIT EVALUATION

Which activities worked well in this unit?

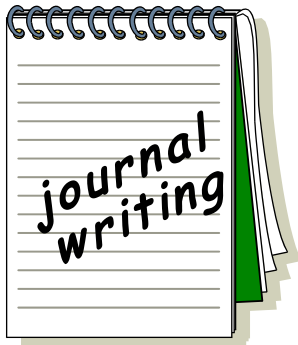
Which resources were useful in the implementation of this unit?

How did I respond to the range of students' attitudes towards the creation story in the Bible?

How did I respond to the range of students' understanding of the focus of science compared to the focus of the Bible when explaining the origin of the universe?

What would I do differently if I was teaching this unit again?

How will I use and build on knowledge, understandings, skills, attitudes, and values students have developed in this unit?










The Beginning of the World

In this unit we will be investigating different Christian beliefs and scientific theories about the beginning of the world. You will be keeping a journal to record your thoughts about the information presented.

You will be given time at the end of each lesson to write in your journal. You will need to make two journal entries each week. The questions below will guide your journal entries. Choose those that best relate to what you did in the lesson.

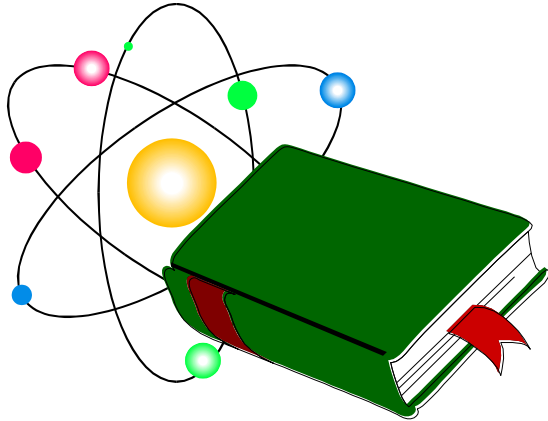
Remember, the journal is to keep track of your learning and feelings about the beginning of the world. The teacher will simply respond to the thoughts you present.

-  What did you investigate today?
 -  What did you learn today?
 -  What questions do you have at this stage?
 -  What is your reaction to the information presented?
 -  What challenges does the information present for you?
 -  What concerns do you have?
 -  What have you seen or read at other times that supports or discounts the information presented today?
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BELIEFS ABOUT THE WORLD

People have always wondered about the world: how it began and how it works. Since the earliest times people have had theories about the earth and how it exists in space. These theories have changed over time as people have studied and investigated more about the world. Read the following points to consider the way people's theories about the world have changed.

- ◆ **For thousands of years, people thought the earth was like a flat disc, that was on pillars that came up from the underworld. The sky was like a solid dome above it. This is similar to what is described in the Genesis 1:1 – 2:4 creation account.**
- ◆ **The Greek astronomer Ptolemy believed that the earth was at the centre of the universe and that the 'heavens' or space were perfect and unchanging. The heavens moved in perfect circles around the earth. This belief was held for about thirteen hundred years.**
- ◆ **A Polish astronomer Copernicus challenged Ptolemy's theory by teaching that the sun was at the centre of the universe. Copernicus was reluctant to publish his ideas for fear of ridicule. In 1543 he published his views in a book.**
- ◆ **Galileo used the telescope to study the 'stars'. Galileo discovered that Jupiter had 'stars' that appeared to revolve around it. He also reported that the moon had blemishes on it and that the Milky Way was comprised of myriads of stars.**
- ◆ **Astronomers now know that the earth belongs to a solar system. Non-fiction texts will be able to provide a great deal of information about the planets in our solar system. However, scientists continue to learn and change their ideas about the universe as more research is carried out, eg space probes travelling to distant planets and sending back images and information. The earth and its universe continues to be a great focus for scientific investigation and discovery.**
- ◆ **Scientists today believe that the universe began in a 'big bang'. Astronomers have discovered that the universe is expanding. Scientists have drawn the conclusion that such an exploding universe must have had a beginning. For more information about current theories read *The Big Questions* by Paul Davies in conversation with Phillip Adams, 1996 Penguin Books.**



THE BIBLE & THE UNIVERSE

Read the first account of creation in Genesis 1:1 – 2:4 and respond to the following questions.

You may work in a group and divide the questions among you. Use Bible handbooks and encyclopedias to investigate the Genesis account.

- What does the Bible help people understand about the world?
- Who created the universe?
- How does the Bible say God created the universe?
- What do you think the author of Genesis wanted people to know about the creation of the universe?
- When was Genesis written and who was the audience? What beliefs about the world existed at that time?
- How could the writer know what happened before human beings were even created?
- Would you consider the language to be most like a story, scientific report or poem?

There is a second account of creation in Genesis. Read Genesis 2:5–25 and investigate these questions:

- How is this account different from and similar to the account in Genesis 1?
- Why do you think there are two accounts of the creation of the universe?
- What do you think the author wanted people to know about the creation of the universe?

The Bible has other descriptions about the universe and how it began. Read:

Job 38:2 – 39:2	Psalms 24:1,2	Psalms 95:3–5
Psalms 104	Psalms 136:1–9	Psalms 145:15,16
Psalms 148	Isaiah 40:21–31	Isaiah 45:9–13

- What further information do these passages give us about the beginning of the world?
- Do these accounts describe *how* God created?
- How is the Bible’s account of creation different from the theories about origins?
- How does the Bible explain the laws and systems which operate in the world?
- What does the Bible say about why these laws exist?
- What does the Bible say about the relationship God has with the universe?

What does the Bible really say?

Teachers may choose from the following statements to explore ways different people interpret the Bible’s account of the origin of the universe. Choose those appropriate to your students.

<p>Science and religion answer different questions. Science asks how things happen, religion asks why. Genesis is not there to give us strict, technical answers about how the universe began. It gives us the big answer that things exist because of God’s will. One can perfectly well believe in the Big Bang but [also] believe in it as the will of God the creator.</p> <p style="text-align: right;">A professor of astronomy</p>	<p>Christians do not have a perfect understanding of God or the Bible. This is particularly true of ideas about the creation of the world. The Bible does not give us the details of what happened when God spoke his creative word and the universe came into being. We do not know what was actually happening to the dust as God was making the first human being. . .</p> <p>Christians need to be clear that the debate about evolution is not about the existence of God or the truthfulness and reliability of the Bible. Rather, it is a matter of whose picture of how creation took place is considered to best fit all the available evidence. We need to remember that the picture based on people’s interpretations of the Bible and the one based on scientists’ interpretation of their research are both products of the human mind . . . Our pictures or ideas about God and creation will always be inaccurate and limited.</p> <p>What really matters, of course, is God’s ideas and pictures about us. The love of God for us in Jesus Christ is not affected by our struggles to understand creation.</p> <p style="text-align: right;">Pastor Brian Schwarz (ed) from <i>Good Question</i></p>		
<p>That the intention of the Holy Ghost is to teach us how one goes to heaven, not how heaven goes.</p> <p style="text-align: right;">Galileo</p>	<p>It is by faith that we understand that the universe was created by God’s word, so that what can be seen was made out of what cannot be seen.</p> <p style="text-align: right;">Hebrews 11:3 The Bible</p>	<p>The material imagery has never been taken literally by anyone who had reached the stage when he could understand what ‘taking it literally’ meant.</p> <p style="text-align: right;">Professor C.S. Lewis</p>	<p>The Bible’s stories of creation must not be used as a scientific account. They are concerned with theological truths.</p> <p style="text-align: right;">A professor of genetics</p>
<p>[We] may have many questions about the how and when of creation. We may wonder, for example, about the age of the earth and about how scientific discoveries and Bible statements relate to each other. The Bible does not answer all our questions. It is more concerned to lead us to know the Creator of all things than it is to teach us to know everything about the creation.</p> <p style="text-align: right;">Pastor David Strelan from LIFE</p>		<p>The story of creation should lead us to praise God, to wonder at his marvellous works. This is the reaction found in such psalms as 8 and 104, which express awe and adoration of God for what he has done. To argue about individual details in the stories of creation is to run the risk of missing the point to which they want to lead us: thankful praise.</p> <p style="text-align: right;">Dr Vic Pfitzner from <i>Masterplan</i></p>	