

Creation Education Activities Topic : Biodiversity.

The term 'biodiversity' is formed from the two words 'biological diversity'. In this Topic booklet, 'biodiversity' is defined as **the variety of all forms of life that God created on earth, including plants, animals and micro-organisms, their genes, and the ecosystems to which they belong.**

The purpose of the activities on this topic is to provide opportunities for students to explore the biodiversity that God created on earth, individually for some activities, and collectively with friends or siblings for other activities. **When completed, all activities should :**

- 1. glorify God and uplift the supervisor(s) or other audience.**
- 2. be explicit about God as creator.**

To complete the topic students select and complete seven of the activities, including three from the Creation Science Projects category, and one from each of the other four categories. When the seven activities are completed to the satisfaction of the supervisor(s) (eg. teacher, home schooling parent) and marked as indicated below, this completed **topic record booklet** is to be returned to the Creation Science Education Association of Australia, P.O. Box 1570, Thuringowa Central. Queensland. 4817.

Students who complete the seven activities satisfactorily, in the opinion of their supervisor(s) and the Association, will receive a certificate of achievement from the Association. **The certificate will be laminated unless you indicate otherwise.** Students who complete all activities on the topic satisfactorily will receive special recognition. Children of any age from Pre-school to Year 12 may participate in the activities, whether they attend Christian or State schools, or whether they are home educated. **The standard expected for each activity will depend on the age and ability of the student.**

Please circle the id number of each activity completed (eg. 1.2). Then fill out the **Topic record** on page 7, for each activity. Beside each id number, please write **I** signifying that the activity was completed as an individual endeavour

or **G** signifying that the student was a part of a group who completed the activity (eg. pair, triple, or more)

or **C** signifying that the student claims credit for having entered a similar activity in the 2010 Biodiversity competitions conducted by this

Assn.

The details of the supervising adult(s) (eg. teacher and / or parent) must appear at the bottom of the **Topic record**, to signify that all the information provided in the topic record is true and correct. If supervisors have difficulty in so attesting (eg. whether all the relevant rules were satisfied), they may contact the Association for advice, or they may send the product of the activity(ies) (eg. a Science project) to the Association for a ruling. Students may negotiate with the Association to vary a set activity, or to add activities to the topic.

Student's details (every student involved in any of the activities must submit a separate topic record booklet like this one if they seek recognition of their efforts from the Association - you may photocopy a completed booklet for your own records before sending it to the Association) :

student's name (please print legibly) : **grade :**

postal address (please print legibly) :

phone number (please include area code) :

date first activity started : **date last (eg. seventh) activity finished :**

N.B. : The interval between the start date of the first activity and the finish date of the last activity should not exceed one calendar year.

date of posting or delivery to the Association :



Category 1 : Christian creative arts for the Biodiversity topic. Select and complete **one** of the activities on this page. **page 2**

<u>i.d.</u>	<u>activity</u>	<u>rules</u>
1.1	create an artwork of a scripture you could relate to biodiversity in a particular ecosystem on the earth (cf. Genesis 2 : 8)	1. artworks may be : realistic or semi-abstract made out of any material(s) a drawing, painting, collage, or print in any medium, and of any size
1.2	make imprints of leaves from an ecosystem (eg. Mark 13 : 28)	2. artworks must : (a) express the teaching of or relate to a supporting Bible text (b) use the elements and principles of design (eg. line, shape, colour, texture, balance, repetition) (c) be an individual effort 3. be sure to complete the topic record on page 7 for this artwork.
1.3	make a diorama of an aspect of biodiversity (eg. Job 14 : 18 – 19)	1. the diorama may be : realistic or semi-abstract 2. the diorama must : express the teaching of or relate to a supporting Bible text be an individual effort 3. be sure to complete the topic record on page 7 for this diorama.
1.4	make puppets for a puppet play (see #8 of Performing Arts)	1. the puppets may be made out of any material(s) 2. the puppets must relate to a supporting Bible text, be an individual effort & show originality 3. be sure to complete the topic record on page 7 for these puppets.
1.5	make a paper mache model of an aspect of biodiversity (eg. Isaiah 35 : 6 – 7)	1. the model must : express the teaching of or relate to a supporting Bible text be an individual effort
1.6	make a model of an instrument for studying biodiversity (cf. Job 24:19A)	2. be sure to complete the topic record on page 7 for this model.
1.7	illustrate a storybook (see 3.4 of Christian Language Arts on page 4 of this topic record booklet) and / or a Science or Mathematics project (see pages 5 and 6 respectively of this Astronomy topic record booklet).	1. the illustrations may be drawings, paintings, or prints in any medium 2. the illustrations must - be the student's own work - express the teaching of or relate to the supporting Bible text of the storybook 3. be sure to complete the topic record on page 7 for this artwork.
1.8	create a poster of a scripture you could relate to biodiversity (eg. Genesis 2 : 9)	1. posters may be : a drawing, painting, collage, print or photographic in any medium 2. posters must : (a) be on paper or card, of any size and able to be viewed from 4-5 metres (b) have words and a picture (c) be an individual effort (d) any lower case letters are to be bold and at least 1 centimetre high (e) express the teaching of or relate to a supporting Bible text (f) use the elements and principles of design (eg. line, shape, colour, texture, balance, repetition) 3. lettering, layout, illustration need to combine to make the message very clear 4. be sure to complete the topic record on page 7 for this poster.
1.9	design and explain an improvement for studying biodiversity (Proverbs 25 : 2)	1. the improvement must : express the teaching of or relate to a supporting Bible text be an individual effort 2. be sure to complete the topic record on page 7 for this model.
1.10	Produce a photographic collection showing an aspect of biodiversity (Psalm 104 : 24).	Rules to be selected from above as appropriate to the photographic collection.
1.11	an added or varied Christian Creative Arts activity negotiated with the Association	Rules to be selected from above as appropriate to the added or varied Christian Creative Arts activity.

Category 2 : Christian performing arts for the Biodiversity topic. Select and complete one of the activities on this page. **page 3**

i.d.	activity	rules
2.1	Write and perform a song, chorus or rhyme about biodiversity in an ecosystem somewhere on earth (cf. Isaiah 41 : 19)	1. The song may be in the form of a song, chorus, rhyme, jingle, rap, etc 2. Students may do the activity as individuals, as a pair, or as a small or large group.
2.2	Write and perform a praise song thanking God for an aspect of biodiversity (eg. Isaiah 44 : 4)	3. Students must perform the song to a live audience (eg. class or family) or record the song on audio cassette or CD.
2.3	Create and perform a rap about the importance of stewarding biodiversity in God’s creation wisely (eg. Job 28 : 11A)	4. Songs may be put to an already existing tune. Please acknowledge the tune and name of the composer, if known. 5. The song must : a. be catchy, b. express the teaching of or relate to a supporting Bible text, and c. be effective in communicating the message for the style of presentation chosen.
2.4	write a ballad about events in an ecosystem (eg. 1 Peter 1:24 – 25)	6. Be sure to complete the topic record on page 7 for this Music activity.
2.5	use verses of scripture (eg. Job 8 : 11) to make a song about biodiversity	7. A typed copy of the words of the song AND a copy of the music if you composed your own tune AND a copy of the tape / CD could be sent to the Association, and made available as a resource for others to borrow & be edified by. Please include any known copyright details that apply to the song.
2.6	use simple instruments and / or voice to create sounds from an ecosystem (cf. Job 6 : 5)	1. Students may do the activity as individuals, as a pair, or as a small or large group. 2. Students must perform or record the sounds as per rule 3 above. 3. Be sure to complete the topic record on page 7 for this Music activity.
2.7	Create and perform a Drama (eg. stage play, mime, pantomime, or creative movement) that shows an aspect of stewarding biodiversity in God’s creation wisely (Job 12 : 7 – 10).	1. The drama presentation can be in the style of mime, pantomime, puppetry, creative movement, poetry recital, radio play or a stage play of one or more scenes. 2. The drama presentation must : a. be performed to a live audience (eg. class or family) or recorded on video cassette or DVD; b. express the teaching of or relate to a supporting Bible text; c. use the elements of Drama to create dramatic meaning; d. show flair, style and creativity; e. use simple, inexpensive costumes and props to help set the scene and build atmosphere.
2.8	make up a puppet play about an aspect of biodiversity (see #4 of Creative Arts)	3. Students may do the activity as individuals, as a pair, or as a small or large group. 4. Be sure to complete the topic record on page 7 for this Drama presentation.
2.9*	script and perform a debate about whether to employ or dismiss a creationist biologist / ecologist (Job 40 : 8)	5. A typed copy of the script of the Drama AND a copy of the video cassette or DVD could be sent to the Association, and made available as a resource for others to borrow and be edified by.
2.10	Create and perform a television advertisement, interview , or news item that shows an aspect of stewarding biodiversity in God’s creation wisely.	1. The advertisement, interview or news item should be between 30 and 180 seconds duration. 2. The advertisement, interview or news item must abide by the provisions of rule 2, 3, 4 for activities 2.7, 2.8 and 2.9 above. 3. A written copy (preferably typed) of the script of the advertisement, interview or news item AND a copy of the video cassette or DVD could be sent to the Association, and made available as a resource for others to borrow and be edified by.
2.11	an added or varied Christian Performing Arts activity negotiated with the Assn.	Rules to be selected from above as appropriate to the added or varied Christian Performing Arts activity.

* chapters 4, 5B, 7A, 8A & B, 9, 10 or 11 of Slaughter of the Dissidents : The Shocking Truth About Killing The Careers Of Darwin Doubters by Dr Jerry Bergman (2008) – this book may be borrowed from the Creation Education Resource Centre.

Category 3 : Christian language arts for the Biodiversity topic. Select and complete one of the activities on this page. **page 4**

<u>i.d.</u>	<u>activity</u>	<u>rules</u>
3.1	Using your creative writing abilities, write a story / essay that retells part or whole of the work of Gregor Mendel who pioneered the field of genetics.	<ol style="list-style-type: none"> 1. The story / essay is to be readable, and must be generally correct with respect to grammar, punctuation etc. 2. The story / essay must be of one or more pages in length 3. The story / essay must express the teaching of or relate to a supporting Bible text. 4. The story / essay must be an individual effort. 5. Be sure to complete the topic record on page 7 for this story / essay.
3.2 **	Using your creative writing abilities, write a story / essay that retells part or whole of the work of Louis Pasteur whose experiments showed conclusively that life comes from life, and does not occur spontaneously.	
3.3	Write a story / essay defending the theory of special creation of life against the theory of evolution of life in biodiversity (Ps 14:1)	
3.4	Using your creative writing abilities, make an illustrated storybook or comic book that retells part or whole of the work of Gregor Mendel who pioneered the field of genetics.	<ol style="list-style-type: none"> 1. The illustrated storybook / comic book is to be readable, and must be generally correct with respect to grammar, punctuation etc. 2. The illustrated storybook must express the teaching of or relate to a supporting Bible text. 3. The illustrated storybook must be an individual effort. 4. Be sure to complete the topic record on page 7 for this illustrated storybook.
3.5 **	Using your creative writing abilities, make an illustrated storybook or comic book that retells part or whole of the work of Louis Pasteur whose experiments showed conclusively that life comes from life, and does not occur spontaneously.	
3.6	make an illustrated storybook of Day 3, 5 or 6 of Creation Week (Gen 1 : 11 – 13, 20 – 31)	
3.7	Using your creative writing abilities, write a poem that retells in part or in whole the work of Gregor Mendel who pioneered the field of genetics.	<ol style="list-style-type: none"> 1. The poem may take the form of narrative, lyric or dramatic poetry, free verse, or a ballad, ode, sonnet, lyric, idyll, limerick, haiku, or other form. 2. The poem is to be readable, and should follow the conventions of metre, rhyme, verse formation and punctuation of the form of poem chosen 3. The poem must express the teaching of or relate to a supporting Bible text. 4. The poem must be an individual effort. 5. Be sure to complete the topic record on page 7 for this poem.
3.8 **	Using your creative writing abilities, write a poem that retells in part or in whole the work of Louis Pasteur whose experiments showed conclusively that life comes from life, and does not occur spontaneously.	

For the following activities, the rules of activities 3.1, 3.2 and 3.3 apply.

3.9	Write an historical account based on research into biodiversity (eg. Job 14 : 7 – 9).	3.16 Produce a glossary of terms used in biology / ecology.
3.10	Compose a creationist ecologist's journal / diary / letter based on research of activity 3.9 above.	3.17 Compose a crossword puzzle / word search using terms relating to biodiversity.
3.11 ***	Write a biography about Raymond Jones or another creationist ecologist (eg. 1 Samuel 2 : 30).	3.18 Explain how an instrument or technique for studying biodiversity works (cf Proverbs 1 : 1 – 7).
3.12	Prepare a chaplain's devotion or sermon for expeditioners researching biodiversity in a remote ecosystem.	3.19 Critique careers of biologists / ecologists who base their work on long-age assumptions (Proverbs 21 : 30).
3.13	Compose a script for an interview with a biologist / ecologist.	3.20 Compile a diary of an attendee at a biology / ecology camp (eg. Job 35 : 11).
3.14	Describe one or more critical factors that relate to biodiversity (eg. Job 14:11).	3.21 Critique the career of a creationist biologist / ecologist (Ecclesiastes 7:25A).
3.15	Produce an illustrated dictionary of biodiversity.	3.22 Design a leaflet for a specific target audience about an aspect of biodiversity.
3.23	an added or varied Christian Language Arts activity negotiated with the Association.	Rules for activity 3.23 to be selected from above as appropriate to the added or varied Christian Language Arts activity.

** a biography about Louis Pasteur is available for borrowing from the [Creation Education Resource Centre](#), which has the same contact details as the Association on pages 1 and 7 of this **Biodiversity topic record booklet**.

*** pages 26 – 29 of [The Genesis Files](#) edited by Carl Wieland (2004) – this book may also be borrowed from the [Centre](#).

Category 4 : Creation Science Project for the Biodiversity topic. Select and complete three of the activities on this page. **page 5**

<u>i.d.</u>	<u>activity</u>	<u>rules applicable to all of these Creation Science Projects</u>
4.1	Obtain details about diversity between primates and humans, and explain the aspects of God’s creation that make it impossible for humans to have evolved from primates (cf 1 Kings 10 : 22, 2 Chronicles 9 : 21)	<p>1. <u>The projects</u> can be attempted in a variety of forms :</p> <p>(a) written submission on A4 paper, project card, or a self made book (b) pictorial by photographs, pictures, drawings, diagrams, graphs, etc (c) multi-media by floppy disk or video (d) a working model (e) orally by presentation on video or audio cassette (f) practical investigative activities (g) a combination of some or all of the above.</p> <p>2. Include any special instructions or explanations that might be necessary for understanding how the projects work.</p> <p>3. Students may do any of the Creation Science Projects activities as individuals, pairs or triples.</p> <p>4. <u>The main criteria for assessing the projects</u> : (a) how the finished project fulfils the requirements of the task (b) expresses the teaching of or relates to a supporting Bible text. (c) be explicit about God as creator (d) clarity & standard of presentation.</p> <p>5. There is no restriction on the size of Science projects.</p> <p>6. Projects should be presented to a live audience (eg. class or family).</p> <p>7. Be sure to complete the topic record on page 7 for each Science project.</p> <p>8. Each Science project <u>could</u> be sent to the Association, to be available as a resource for others to borrow and be informed and edified by.</p>
4.2	Obtain details about genetic diversity in an ecosystem, and explain the aspects of God’s creation that make it impossible for one organism to evolve into another (Genesis 1 : 30).	
4.3	Collect and display details about ecosystem diversity, showing the complexity of God’s creation that make it impossible for the diversity to have happened by chance.	
4.4	Collect and display several different types of micro-organisms that live in the air, and explain the aspects of God’s creation through which they are irreducibly complex and therefore could not have evolved (Ecc 10 : 1A).	
4.5	Observe and draw or photograph examples of tree and shrub biodiversity, and explain their biodiversity in terms of God’s design (Genesis 1 : 11).	
4.6	Observe, draw or photograph examples of soil, sand or dust biodiversity, and relate these examples to God’s design (Gen 1 : 25).	
4.7	Investigate, draw or photograph examples of grassland biodiversity, and relate the examples to God’s design (Genesis 1 : 12).	
4.8	Investigate, draw or photograph examples of fallen log biodiversity, and relate the examples to God’s design (cf Job 8 : 16 – 19).	
4.9	Research, draw or photograph examples of pond biodiversity, and relate the examples to God’s design (cf Leviticus 11 : 9).	
4.10	Research, draw or photograph examples of nocturnal biodiversity in your backyard, paddock or a park or schoolground, and relate the examples to God’s design (Lev 1:17)	
4.11	Research, draw or photograph examples of daytime biodiversity in your backyard, paddock or a park or schoolground, and relate examples to God’s design (Job 15 : 24).	4.19 Investigate the environmental impacts of introduced fauna or flora into ecosystems in Australia (Genesis 1 : 28/29).
4.12	Investigate, draw or photograph examples of cave biodiversity in Australia, and relate these examples to God’s design (cf Job 28 : 3).	4.20 Note the presence and importance of water in an ecosystem in your backyard, paddock, park or school ground (cf. Luke 8 : 6).
4.13	Represent a food chain in an ecosystem of your choice (Job 9 : 26B).	4.21 Grow some native plants from seed (Genesis 1 : 12).
4.14	Join in a local tree planting activity (Gen 2 : 8 and 21 : 33; Ecc 2 : 5).	4.22 Represent different types of ecosystems (cf. Isaiah 34:11–15).
4.15	Make a collection of leaves or flowers from native plants in your area (Genesis 1 :11; Isaiah 35 : 1).	4.23 Demonstrate the use of an instrument or technique for studying biodiversity in Australia, and explain how it works (Job 28 : 28).
4.16	Draw insects that visit native plants in your area (cf. Ps 118:12; Lev 11: 20–22).	4.24 Explain human impacts on biodiversity in Australia (Genesis 1 : 26).
4.17	Explain the selective breeding of plants and animals in Australia as variations within a kind (cf Genesis 30 : 32 – 42).	4.25 Present impacts of bushfires, floods or cyclones on an Australian ecosystem (cf Job 20 : 26B).
4.18	Replicate and explain, from a creationist perspective, the findings of a published report of the CSIRO or DPI, into an aspect of biodiversity in Australia (Job 12:7–9).	4.26 an added or varied activity negotiated with the Association.

Category 5 : Creation Mathematics Project for the Biodiversity topic. Select and complete one of the activities on this page. **page 6**

<u>i.d.</u>	<u>Activity</u>	<u>rules applicable to all of these Creation Mathematics Projects</u>
5.1	Record and graph how many different kinds of birds you observe in your backyard, paddock, park or a schoolground (Genesis 7:3).	<p>1. <u>The main criteria for assessing the project</u> :</p> <p>(a) explanation of relevant aspects of God’s creation that make the activity possible</p> <p>(b) accuracy, neatness and creativity of the project</p> <p>(c) clear presentation of mathematics relevant to the activity.</p> <p>2. The standard expected will depend on the age and ability of the student.</p> <p>3. The project must express the teaching of or relate to a supporting Bible text.</p> <p>4. There is no restriction on the size of the project.</p> <p>5. Projects may be generated on a computer and printed-out, or they may be emailed to the Association.</p> <p>6. Students may work together on the project, however students are to make their own projects as individuals.</p> <p>7. Be sure to complete the topic record on page 7 for each Maths project.</p> <p>8. Students need to consider how they will cope with any peculiarities that might accrue to getting their project to the Association for recognition if necessary.</p> <p>5.19 an added or varied activity negotiated with the Association.</p>
5.2	Record and / or graph how many different kinds of invertebrates you find in a one metre square of garden, beach or other locality (Genesis 1 : 24).	
5.3	Research how many different kinds of plant life you can find in a local body of freshwater. Make sure you have adult supervision for safety reasons (Genesis 1 : 22).	
5.4	Research how many different kinds of vertebrates and / or invertebrates you find in a local body of freshwater. Make sure you have adult supervision for safety reasons (Genesis 1 : 20).	
5.5	Measure and record animal footprints you find in the dirt, sand or mud of a particular ecosystem (Song of Solomon 1 : 8).	
5.6	Compare and contrast the population densities of various lifeforms in an ecosystem of your choice (Genesis 8:17).	
5.7	Grow some annuals, and measure the lengths of their stems, leaves and / or roots, and / or draw the shapes of their leaves (Isaiah 40 : 7A).	
5.8	Compare and contrast the variety and prices of different fruits and vegetables from a supermarket, your local greengrocer, roadside stall, or your own back yard (Numbers 11 : 5).	
5.9	Study order in an ecosystem of your choice (Job 38 : 27).	
5.10	Compare and contrast the numbers of young that several examples of fauna typically give birth to at one time (Job 39 : 1 – 4, Job 21 : 10 – 11).	
5.11	Compare, contrast and graph incubation times of eggs for several examples of birds (cf. Matthew 23:37).	
5.12	Draw boundaries of ecosystems of your choice and calculate their areas (cf. Job 38 : 8 – 11).	
5.13	Construct a scale model of an ecosystem of your choice.	
5.14	Present temperature data applicable to different ecosystems of your choice (cf. Jonah 4 : 6 – 8).	
5.15	Compile a chronology of the development of theories about the origins of biodiversity **** (Genesis 1:1).	
5.16	Prepare a timetable for a Biology or Ecology camp.	
5.17	Present a classification diagram for different types of ecosystems in Australia (eg. 5a, 5b, 5c, 5d).	
5.18	Design and / or play a game about biodiversity.	

**** eg. micro and macro evolution, punctuated equilibrium, theistic evolution, intelligent design, special creation

Topic record for the Biodiversity topic.

<u>i.d.</u>	I G or C	satisfied all the relevant rules	supporting Bible text(s)	how the activity is related to or expresses the teaching of the Bible text (please turn over to the back page if you need more room)	student's own work	date completed	supervi sor's initials
eg. 4.1	I	yes	Genesis 1:24, 26-27	the project is about God's creation of different kinds of primates as separate from humans in the beginning	yes	11.11.2011	XYZ

Details of supervising adult(s) :

Name(s) (please print) :

Address(es) :

.....

Phone number(s) (including area code) :

Signature(s) of supervising adult(s) :

to attest that all of the details provided on this Topic record are true and correct, and that all completed activities glorify God, uplift the supervisor(s) or other audience, and are explicit about God as creator.

Please return this completed Biodiversity Topic record booklet to :

**Creation Science Education Association of Australia.
P. O. Box 1570,
Thuringowa Central. Queensland. 4817.**



Please note : There is no restriction on the size of what children produce for each activity, however they need to consider how they will cope with getting their projects to the Association for recognition if the need arises.