Growing and changing

Unit of work contributed by Gretel Watson, Curl Curl North Public School, NSW

About the unit

Unit description
In this unit of work students explore the concepts of growing and changing and learn how to write descriptions and explanations.

Knowledge, understandings, skills, values
- Students will learn how particular text types have particular purposes.
- Students will learn that an explanation tells us why things are what they are and how they came to be that way.
- Students will explore links between events and actions.
- Students investigate how living things grow and change in cycles and stages.

Focus questions
- What are the essential elements of an explanation?
- How do things grow and change?

Resources

Digital curriculum resources
- ‘Life cycles’ series: L1358 butterflies; L1361 birds; L1359 crocodiles; L1364 whales; L1360 flowers; L1363 gum trees
- R8395 ‘I Think ...’ - Cycle of life
- R6066 ‘I Think ...’ - Once I grew
Internet sites
- Green tree python: [http://www.whozoo.org](http://www.whozoo.org) (search for ‘green tree python’)
- Green tree python at Utah’s Hogle Zoo: [http://www.hoglezoo.org](http://www.hoglezoo.org) (select ‘Meet our animals’ and then search for ‘green tree python’)

Software
- Presentation software such as MS PowerPoint, Photo Story, Movie Maker or Apple iMovie

Print
Books
- *Where did I come from? The facts of life without any nonsense and with illustrations*, Peter Mayle, Pan Macmillan, 1991
- *When Frank was four*, Alison Lester, Hachette, 2006
- *The very hungry caterpillar*, Eric Carle, Puffin, 1974

Poems
- ‘The end’, AA Milne in *Now we are six* (any edition)

Other resources
- *Where did I come from? The facts of life without any nonsense and with illustrations*, video recording, Peter Mayle, Learning Essentials, 1995

Attached printable resources
- The following teacher-created learning resources referred to in the unit of work are available for you to modify, print and use in your own teaching and learning context.
  - Explanation checklist
  - This is my life research questionnaire
  - How I have grown worksheet
  - This is my life timeline
  - Life cycle template
Teaching the unit

Setting the scene

Resources

- Explanation checklist (page 9)
- This is my life research questionnaire (page 10)
- How I have grown worksheet (page 11)
- This is my life timeline (page 12)
- ‘The end’, AA Milne in Now we are six (any edition)
- When Frank was four, Alison Lester, Hachette, 2006
- A healthy and active Australia: http://www.healthyactive.gov.au
- R8395 'I Think ...' - Cycle of life

Teaching and learning activities

Sugar and spice

Have students share their views about where they came from, such as the cabbage patch or the stork. Record their explanations to determine each student’s mastery of oral explanations using the Explanation checklist (page 9).

Make a professional judgement about how much they should know about the reality and, if appropriate, share either the book or the video Where did I come from? Look at the text features that have been used to share the explanation and list these so students might use them in their own work.

Hear ye, hear ye

Examine the birth notices inserted in the local paper.

Is there a common format?
Is there common information?
Why do people insert birth notices?
What other ways do people announce or celebrate new babies?

Have the students bring in photos of themselves or another family member as a baby. Share the photos and, as a class, brainstorm the reasons for taking photos.

This is my life

Introduce a story, such as When Frank was four by Alison Lester, which traces a child’s early development and have the students relate their experiences to those of the central character. Introduce the concept and format of a timeline as a way of explaining something.
Have each student complete a personal timeline using the template (page 12) and photographs and drawings to depict events such as the birth of siblings, special holidays, starting school and so forth. Have them research the information they need by seeking help with the This is my life research questionnaire (page 10).

In pairs, have the students explain some of the significant events on the timeline and why they were included. (‘If this hadn’t happened, then …’)

Share ‘The end’ by AA Milne and discuss the concept of growing and changing.

When you were a baby, what things did you need help with? Why?
What can you do now that you could not do when you were younger?

Have students complete the lines of the poem on the worksheet and then cut these out and paste them onto a larger sheet to illustrate. Examine the progression of milestones.
Did you need to be able to walk before you could run?
Did you need to be able to read before you could write?

Explore their own growth by having them complete the How I have grown worksheet (page 11). Emphasise cause and effect by discussing the conditions that need to be in place for them to grow as they have and will in the future. Create a healthy living display linking nutrition, sleep, exercise and education to their physical wellbeing. Refer to http://www.healthyactive.gov.au for more information and activities for the classroom.

Cycle of life
View R8395 ‘I Think …’ - Cycle of life. Encourage students to respond to it with their thoughts and feelings.

As old as the hills
Discuss the concept of ageing and have students decide what is an appropriate age to:

- walk home from school without an adult
- ride a bike to a friend’s house
- reach the biscuit tin on the top shelf
- make a sandwich alone
- stay up until midnight
- leave school
- whistle
- get your driver’s licence
- be a teacher
- ride a horse
- swim the length of the pool
- drive a semi-trailer
• go to the moon in a rocket
• win the lottery
• be a pop star
• get married
• be prime minister
• be a mum or dad
• fall in love
• be too old to play football
• be too old to enjoy reading
• be too old to laugh
• be too old to love someone
• be too old to be loved.

Record the conversations and illustrate key parts. Create a digital presentation along the lines of R8395 'I Think ...' - Cycle of life.

I think
Have students predict what they will look like and what they might be doing five, ten and twenty years from now.

Why do you think this will happen?
What do you need to do to make it happen?

Assessment
At intervals, assess each student’s development in providing oral explanations that demonstrate an understanding of cause and effect.

Investigating

Resources
• The very hungry caterpillar, Eric Carle, Puffin, 1974
• R6066 'I Think ...' - Once I grew
• L1358 Life cycles: butterflies
• ‘Life cycles’ series: L1361 birds; L1359 crocodiles; L1364 whales; L1360 flowers; L1363 gum trees

Teaching and learning activities
Growing and changing
View R6066 'I Think ...' - Once I grew. Initiate a discussion about growing and changing to identify what the students know about the process in plants and animals.

Share The very hungry caterpillar to introduce the concept of life cycles.

Is this really how a butterfly begins?
View L1358 *Life cycles: butterflies*. Use this as a model to demonstrate how to draw and annotate a life cycle so the reader knows what is happening.

Consolidate this understanding of life cycles by viewing the other learning objects in this series. Discuss and list the things that are required for growth and change and then have students consider questions such as:

*What might happen if a seed did not have sunlight?*

*What might happen if a baby whale got separated from its mother?*

Have each student explain one of the life cycles they have viewed in both text and pictures. Use the Life cycle template (page 13) to organise and sequence the information. Use these to gauge their mastery of written explanations.

Compare these life cycles to those of the students.

What are the most significant differences?

**Bringing it all together**

**Resources**

- *Verdi* by Janell Cannon
- Presentation software such as MS PowerPoint, Photo Story, Movie Maker or Apple iMovie
- Green tree python: [http://www.whozoo.org](http://www.whozoo.org) (search for ‘green tree python’)
- Green tree python at Utah’s Hogle Zoo: [http://www.hoglezoo.org](http://www.hoglezoo.org) (select ‘Meet our animals’ and then search for ‘green tree python’)

**Teaching and learning activities**

**Verdi**

Show the children the cover of *Verdi* by Janell Cannon. Have them draw or write about what they know about the life cycle of snakes.

Share the first page and illustration of the story.

*What sort of creature is Verdi?*

*What can we learn about the life cycle of green tree pythons from this page?*

*How should Verdi look when he is a fully grown python?*

Continue to read the story, listing the changes that pythons undergo.

*Why do snakes shed their skins?*

*Could Verdi have stopped the process?*

*Why do pythons become green?*

Use the information in the book to chart Verdi’s life cycle and then have each student reconstruct this life cycle using plasticine models. Photograph or draw the models so that students can add captions to each stage to explain what is happening. Encourage the use of
the correct terminology. Create a sequential slideshow presentation using an application such as MS PowerPoint, Photo Story, Movie Maker or Apple iMovie.

Create a cut-and-paste activity so students can match the captions to the correct picture. This could be created using paper and scissors, or using software for an interactive whiteboard or other ICT tools.

Have the students dramatise the life cycle and video the dramatisation. Have various students add commentary for each stage that explains the changes.

**Assessment**

Have each student write and illustrate their interpretation of the life cycle of a green tree python. Compare this with their first explanation to determine their development in using this text format.
**Writer:** Gretel Watson

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Explanation checklist

Name ___________________________ Class _________ Date __________

1. Understands that the purpose of an explanation is to specifically explain something rather than just provide a personal anecdote

2. Understands that explanations can be oral, written, visual or a combination

3. Uses explanations to identify cause and effect

4. States what is being explained

5. Begins to make generalisations

6. Uses general nouns, a third-person perspective and the present tense

7. Sequences sufficient information for the explanation to be understood

8. Elaborates on information to demonstrate how or why something is as it is

9. Demonstrates an understanding of cause and effect

10. Uses appropriate technical vocabulary

11. Uses both active and passive verbs appropriately

12. Uses action, thinking and modal verbs appropriately

13. Uses appropriate link words to sequence events and demonstrate cause and effect
Dear Mum or Dad

I am trying to trace all the important things that have happened to me since I was born. Can you please help me fill in my timeline by telling me:

- When I was born
- When I sat up
- When I could pull myself up
- When I could crawl
- When I could stand alone
- When I could walk
- When I could run
- When I could jump
- When I could climb stairs
- When I could climb on other things
- When I could hop
- When I could skip
- When I could skip with a rope
- When I could throw a ball
- When I could catch a ball
- When I could hit one with a bat
- When I learned to use the toilet
- When I said my first words
- When I said my first sentence
- When I could sing a song
- When I could read
- When I could write my name
- When I could write a sentence
- When I wrote a really good story
- When I could add
- When I learned my tables
- When I went to play group
- When I went to day care
- When I went to preschool
- When I went to primary school
- When I learned to swim
- When I learned to ride a bike
- When I learned to skate
- When I learned to dance
- When I learned to ski
- When my brothers and sisters were born
- When I got a pet
- When someone I loved died
- When I got sick
- When I went to the hospital
- When I broke my arm
- When I got into BIG trouble
- When I won a prize
- When I did something really nice
- When I stayed away from home by myself
- When we moved house
- When I did something really silly
- When I forgot something really important
- When I joined a sports team
- When I got my first tooth
- When I lost my first tooth
- When I learned to use the telephone
- When I learned to turn the television on
- When I could remember my address
- And anything else you can think of...
How I have grown worksheet

Name ___________________________ Class ___________ Date ___________

<table>
<thead>
<tr>
<th>Baby</th>
<th>Me</th>
<th>Mum</th>
<th>Dad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Around head</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foot size</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I have already grown ________ centimetres. But I have to grow another ________ centimetres to catch up with my ________.

2. I have already put on ________ kilograms but I have to put on another ________ kilograms to catch up with my ________.

3. When I was a baby, the difference between my head size and my height was ________ centimetres. Now it is ________ centimetres.

   My head grows faster than/slower than/at the same rate as my body.

4. When I grow up I think I will be ________ centimetres and ________ kilograms.
This is my life timeline

Name _________________________  Class _________  Date _________