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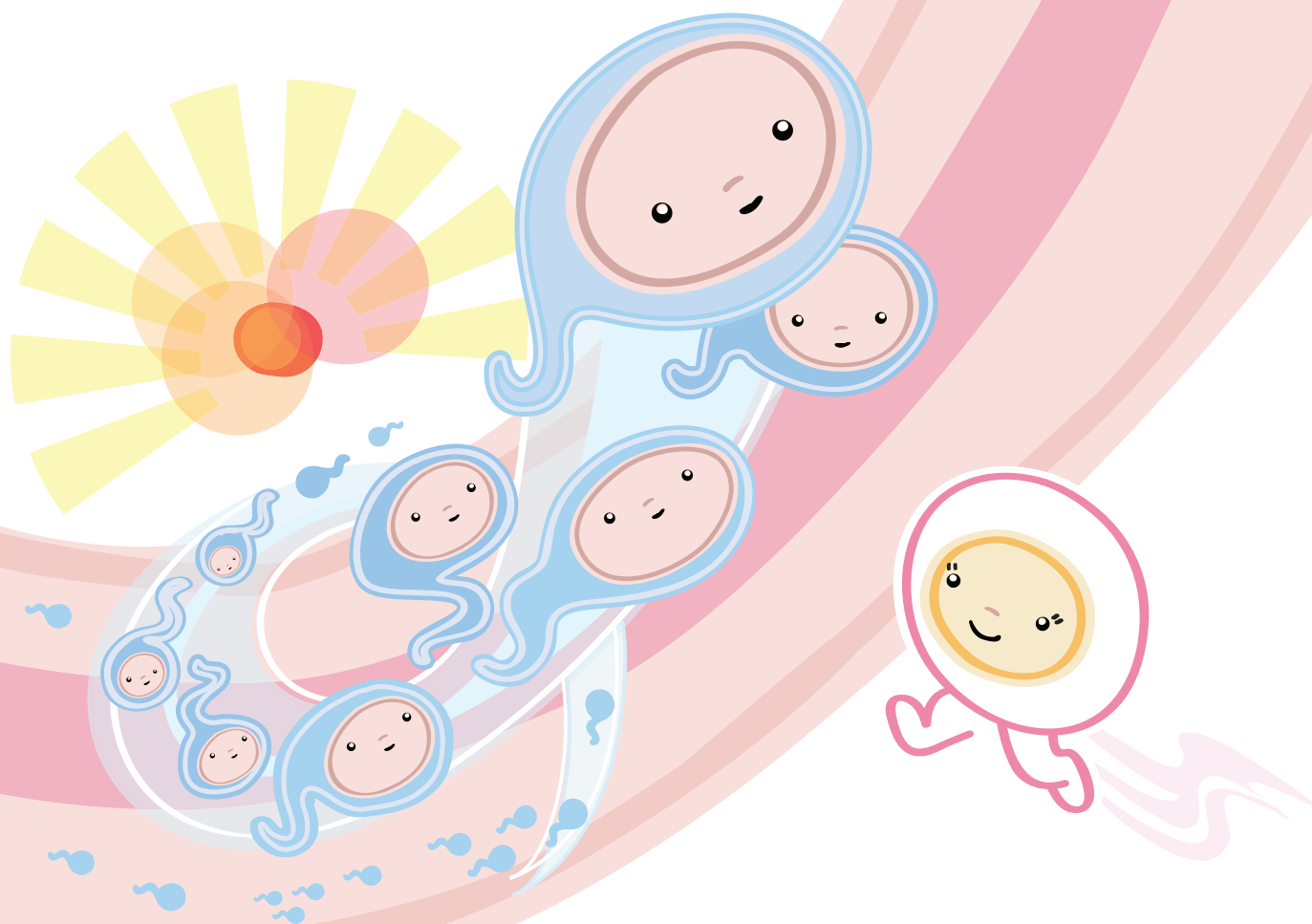
All Systems Are GO!

Reproductive system

Middle Childhood 4–7

Learning Resource

ALL SYSTEMS ARE GO! REPRODUCTIVE SYSTEM





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REPRODUCTIVE SYSTEM
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Integrated

**All Systems Are GO!
Reproductive system**


Middle Childhood

Learning Resource

First published 2010

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Not for NEALS 

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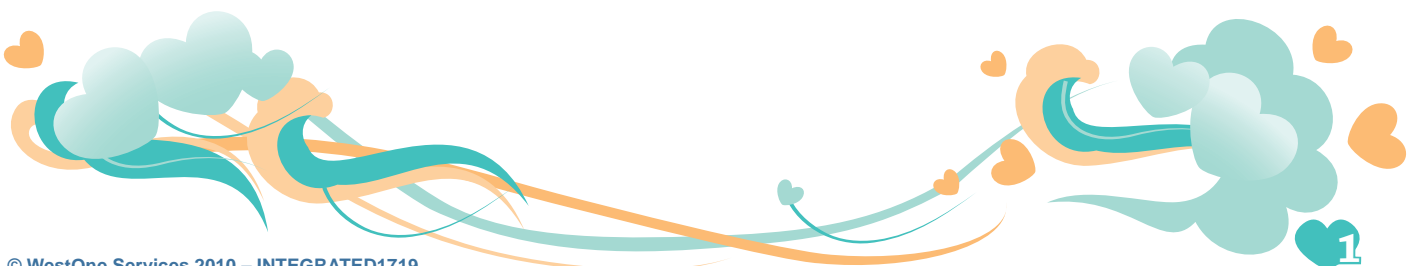
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Overview of All Systems Are GO!

All Systems Are GO! consists of three modules and a Teacher overview.

Module	Outcomes focus
1 Setting the scene	<p>The Arts</p> <p>1. ARTS IDEAS 3. ARTS RESPONSES</p> <p>English</p> <p>8. READING</p> <p>Health and Physical Education</p> <p>1. KNOWLEDGE AND UNDERSTANDING</p> <p>Technology and Enterprise</p> <p>1. TECHNOLOGY PROCESS</p>
2 Body systems	<p>The Arts</p> <p>1. ARTS IDEAS 3. ARTS RESPONSES</p> <p>English</p> <p>5. LISTENING 6. SPEAKING 8. READING 9. WRITING</p> <p>Health and Physical Education</p> <p>1. KNOWLEDGE AND UNDERSTANDING</p> <p>Technology and Enterprise</p> <p>1. TECHNOLOGY PROCESS</p> <p>Mathematics</p> <p>14.CHANCE AND DATA</p>



All Systems Are GO!

Module	Outcomes focus
3 Reproductive system	The Arts 1. ARTS IDEAS 3. ARTS RESPONSES English 5. LISTENING 6. SPEAKING 8. READING 9. WRITING Health and Physical Education 1. KNOWLEDGE AND UNDERSTANDING 4. SELF-MANAGEMENT SKILLS 5. INTERPERSONAL SKILLS Technology and Enterprise 1. TECHNOLOGY PROCESS

Each module has a:

- ♥ student work plan
- ♥ learning activities section
- ♥ feedback and solutions section.

The resources and materials you will need for *All Systems Are GO!* are:

- ♥ paperclip for portfolio
- ♥ *Lockie Leonard, Human Torpedo* novel
- ♥ two strips of thick paper to make a bookmark
- ♥ two drinking straws
- ♥ *Boys and puberty*
- ♥ *Girls and puberty*
- ♥ *Where did I come from?*
- ♥ two round balloons
- ♥ two long balloons
- ♥ ten blank A4 sheets of paper
- ♥ INTEGRATED1721 *All Systems Are GO!* CD-ROM.





Reproductive system



Student work plan

Learning activity	Description of learning activity	Learning focus
5. Reproductive system		
5.1 Contents page	Add information to portfolio	Development of organisational skills
5.2 Storyboard	Create a storyboard to highlight the main themes of the novel	To highlight the main themes of the novel through picture and text forms
5.3 Emotional roller-coaster	Match adjectives with nouns to describe emotions encountered by Lockie	Development of an understanding of the link between adjectives and nouns, and use them to describe emotions
5.4 The talk	Video clips to trigger thoughts about a discussion involving sex	The difficulty of discussing sensitive issues
5.5 Male parts of the puzzle	Name and label male reproductive parts and determine their function	Labelling of diagram and use of cloze sentence technique to demonstrate understanding
5.6 Female parts of the puzzle	Name and label female reproductive parts and determine their function	Labelling of diagram and finding definitions to demonstrate understanding
5.7 The reproduction puzzle	Complete a word sleuth about the female reproductive system	Recall of the names of the female reproductive system

Learning activity	Description of learning activity	Learning focus
5.8 Reading <i>Lockie Leonard, Human Torpedo</i>	Read the novel <i>Lockie Leonard, Human Torpedo</i>	Development of reading skills
5.9 Lockie's emotional roller-coaster – pages 21–40	Match adjectives with emotions encountered by Lockie	Development of understanding of the link between adjectives and emotions
5.10 Changes for boys	Examination of the emotions involved with wet dreams	Development of awareness of a range of emotions that can occur
5.11 Sex characteristics timeline	Match drawings to timeline of secondary sex characteristics	Development of awareness of the timeline for male secondary sex characteristics
5.12 A menstrual time clock	Design information sheet about menstruation	Development of creativity and clarity of explanation
5.13 Reading <i>Lockie Leonard, Human Torpedo</i>	Read the novel <i>Lockie Leonard, Human Torpedo</i>	Development of reading skills
5.14 Lockie's emotional roller-coaster – pages 43–73	Match adjectives with emotions encountered by Lockie	Development of understanding of the link between adjectives and emotions
5.15 Which came first?	Look back through novel to determine order of puberty-related situations	Facilitates re-reading of the novel to enhance understanding

Learning activity	Description of learning activity	Learning focus
5.16 Diorama	Create a diorama from a setting included in the novel	Development of a personal connection with literature, and transforming written information into a visual format
5.17 Sociogram	Create sociograms to connect relationships in the novel and in personal situations	Development of comprehension by focusing on relationships between characters
5.18 Who am I?	Provide clues for character identity	Development of descriptive writing skills
5.19 Reading <i>Lockie Leonard, Human Torpedo</i>	Read the novel <i>Lockie Leonard, Human Torpedo</i>	Development of reading skills
5.20 Lockie's emotional roller-coaster – pages 74–88	Match adjectives with emotions encountered by Lockie	Development of understanding of the link between adjectives and emotions
5.21 Baby beginnings	Describe and confirm process of conception	Matching pictures and text to help understand the process of conception
5.22 Making a baby	Draw features of foetal development onto balloons	Development of understanding of the development that takes place over the 38 weeks

Learning activity	Description of learning activity	Learning focus
5.23 Happy birthday!	Interview to find out about the student's birth	Development of ability to discuss topics
5.24 Spreading the virus message	Create a poster to highlight HIV	Development of creativity
5.25 Reading <i>Lockie Leonard, Human Torpedo</i>	Read the novel <i>Lockie Leonard, Human Torpedo</i>	Development of reading skills
5.26 Lockie's emotional roller-coaster – pages 89–132	Match adjectives with emotions encountered by Lockie	Development of understanding of the link between adjectives and emotions
5.27 Stereotypes	Match descriptions of bogans and surfies	Highlighting of the concept of being stereotyped
5.28 Feelings	Describe feelings in certain situations	Development of understanding that extreme feelings are common during puberty
5.29 Making decisions	Choose options and consequences for various situations	Raising awareness of the elements of the decision-making process
5.30 Setting goals	Determine short and long-term goals	Raising awareness of the need for short and long-term goals
5.31 Keywords	List of keywords that will be found throughout the book	To provide meaning for commonly used words

Signposts

Look for signposts throughout the modules. They give instructions to help you with the learning activities.



Portfolio – This signpost tells you to present your work in your portfolio.



Reading – The reading signpost tells you to read from the suggested book.



Multimedia – The multimedia signpost tells you to use an audio CD, CD-ROM, video or DVD.



Computer – The computer signpost tells you to use a computer or the internet.



Feedback and solutions – The feedback and solutions signpost tells you to check your work by comparing it with the information provided.



Scissors – The scissors signpost tells you to cut out a page from the book.

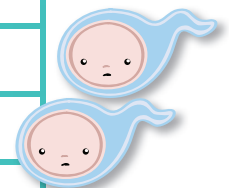
5 Reproductive system

The reproductive system swings into action when we reach puberty. All the parts of the puzzle are already there, but at this time they suddenly become active and take on a life of their own. There are numerous changes that occur with the onset of puberty that will be discussed in detail in this module.

5.1 Contents page

At the completion of this module, make sure you have the following activities included in your portfolio.

Title of the activity	Tick
5.2 Storyboard	<input type="checkbox"/>
5.3 Emotional roller-coaster	<input type="checkbox"/>
5.9 Lockie's emotional roller-coaster – pages 21–40	<input type="checkbox"/>
5.11 Sex characteristics timeline	<input type="checkbox"/>
5.12 A menstrual time clock	<input type="checkbox"/>
5.14 Lockie's emotional roller-coaster – pages 43–73	<input type="checkbox"/>
5.16 Diorama	<input type="checkbox"/>
5.20 Lockie's emotional roller-coaster – pages 74–88	<input type="checkbox"/>
5.22 Making a baby	<input type="checkbox"/>
5.23 Happy birthday!	<input type="checkbox"/>
5.24 Spreading the virus message	<input type="checkbox"/>
5.26 Lockie's emotional roller-coaster – pages 89–132	<input type="checkbox"/>
5.31 Keywords	<input type="checkbox"/>





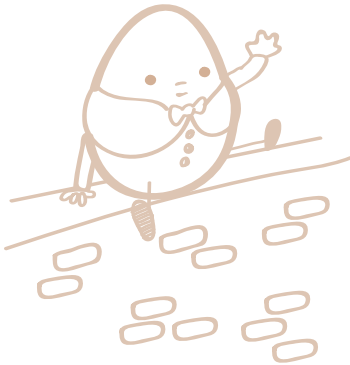


5.2 Storyboard

If you have not already done so, read pages 5–20 of your Lockie Leonard novel.

A good way to summarise a story is to create a storyboard. A storyboard is a grid that uses pictures, words or a combination of both to retell a story.

Here is an example of a storyboard using the nursery rhyme *Humpty Dumpty* as the main theme.

Storyboard title: *Humpty Dumpty*

		
Humpty Dumpty was sitting on a wall.	A strong breeze came along and blew Humpty Dumpty off the wall.	Some soldiers on horses tried to fix Humpty Dumpty but didn't succeed.

Cut out the storyboard grid that follows.

- ♥ Use this storyboard grid to retell the story from pages 5–20 of *Lockie Leonard, Human Torpedo*. Pick out the main themes. For example, your first box might show the family's arrival in the new town.
- ♥ Provide drawings, and then describe the scene.
- ♥ Place the storyboard in your portfolio.



Book title: *Lockie Leonard, Human Torpedo* pages 5-20

Author: Tim Winton

Your name:



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5.3 Emotional roller-coaster

Emotions are the feelings you have inside. You probably have experienced many different types of emotions such as feeling angry, happy or sad. There are many more examples of different emotions.

Going through puberty feels like an emotional roller-coaster – it’s a time in your life when your emotions are heightened. When you are happy you are *really* happy, but when you are sad you are *really* sad. Things that didn’t use to upset you suddenly become the worst things that have ever happened to you.

That is what puberty does to you!

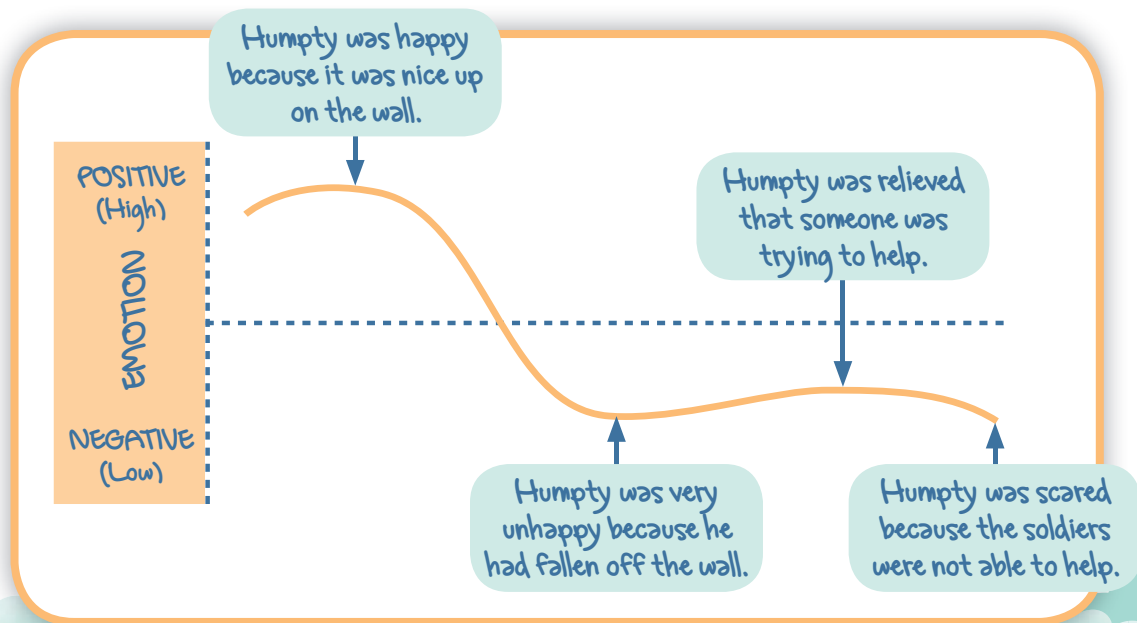
Lockie Leonard is certainly on that roller-coaster. Moving to a new town is hard enough, but at an age when your emotions are all over the place it is *really* difficult.

Think how you would feel if you were in Lockie’s position.

As you read your Lockie Leonard novel, create a diagram that shows the emotional roller-coaster that Lockie Leonard is travelling along.

Your roller-coaster needs a scale to show the emotional highs and lows that Lockie is experiencing, as well as an attached box to describe the reason for Lockie’s emotions.

Using the Humpty Dumpty storyboard as an example, an emotional roller-coaster could look like the one below:



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You may have noticed some words in the boxes that describe Humpty Dumpty's feelings: happy, unhappy, relieved and scared. These words are examples of an adjective that is used to describe a feeling.

An adjective is a describing word that relates to a noun or pronoun (a word that stands in place of a noun, eg he, it). A noun is a word used to name a person, animal, place, thing or abstract idea.

For example, a person may be showing anger. In this case, anger is the noun as it is naming a 'thing'. Perhaps the person is feeling angry. In this case, angry is the adjective because it describes how the person is feeling.

Complete the table below to show the link between adjectives and nouns. If you are not sure of the answer, use your dictionary to look up the word.

Noun (a person, place or thing)	Adjective (a describing word)
sadness	
boredom	
scare	
happiness	
relief	
frustration	
embarrassment	
power	
amusement	

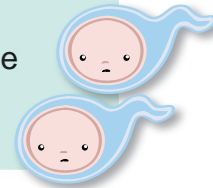
When you begin making your roller-coaster, you might like to use some of these words to describe how Lockie Leonard is feeling.



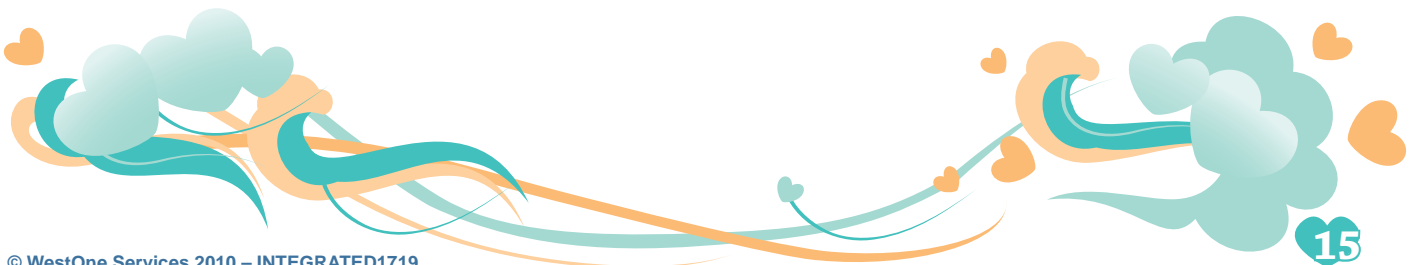
The following instructions will help you to create your roller-coaster.

- ♥ On an A4 sheet of paper write the heading 'Lockie's emotional roller-coaster'.
- ♥ Write the subheading 'Pages 5–20' to indicate which pages of the book your roller-coaster is referring to.
- ♥ Write the following situations which can be found between pages 5 and 20, under your subheading:

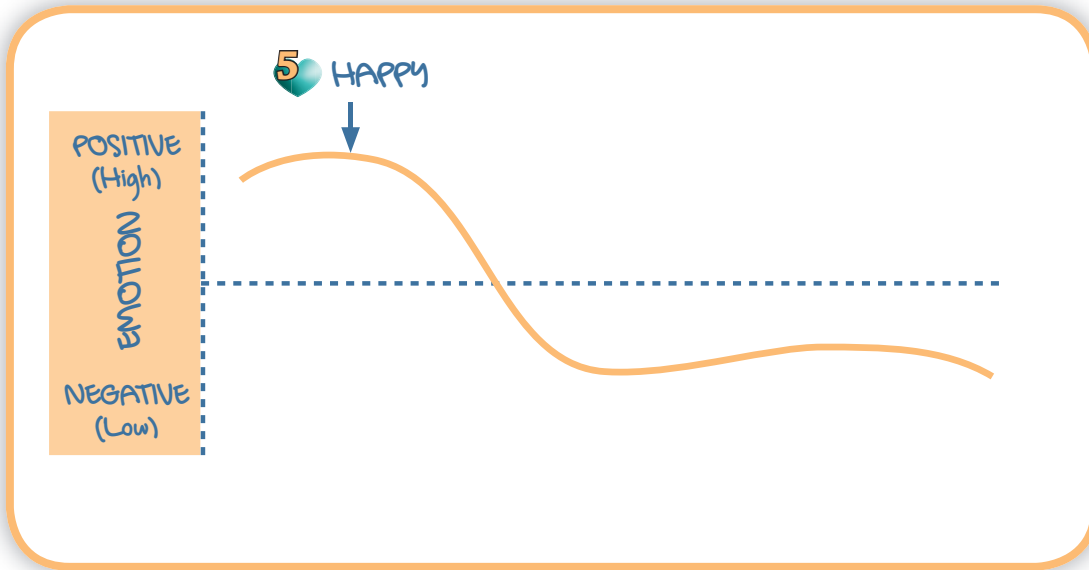
- 1 Arriving in a new town
- 2 Attending school on the first day
- 3 Talking about sex with mum
- 4 Being bullied by other students
- 5 Going surfing
- 6 Dad doing something like turning the siren on at pick-up time



- ♥ Decide how positive or negative Lockie would be feeling in each situation.
- ♥ Like in the Humpty Dumpty example, draw a roller-coaster line to show Lockie's emotions.
- ♥ Create a box for each situation. In each box, write the number that relates to the situation and an adjective that describes how Lockie was feeling. Attach the box to the roller-coaster by drawing an arrow to where it fits on the roller-coaster. See the following example that looks at 'going surfing' as a positive experience for Lockie.



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♥ On the same page, using a different coloured pen, draw a roller-coaster line showing how you think you would feel if you were in each situation.



♥ Include the roller-coaster graph in your portfolio.

As you continue to read the novel, you will be asked to complete more roller-coaster graphs showing Lockie's emotions. Keep all of your roller-coaster graphs together in your portfolio.

After a few more activities you will need to have read pages 21–40. Find some time to make sure you have read the necessary pages when the activities come around.

5.4 The talk

Talking with your mum and dad about sex!

Most people are curious about sex and everything to do with it but find it too embarrassing to talk about.

In the Lockie Leonard novel, neither Lockie nor his mum were very enthusiastic about 'the talk', yet Lockie was keen to have a look at the book that his mum left for him to read.



On your *All Systems Are GO!* CD-ROM, click on 'Mortified – The talk' to see Taylor's reaction to the prospect of having 'the talk'.

Describe Taylor's reaction:

You may have had 'the talk' already, or perhaps you soon will. Describe how you felt or, how you think you will feel, if you have 'the talk'.

On the CD-ROM, click on 'Mortified – Washing up' to see what happens in Taylor's situation.

Sensitive issues are sometimes difficult to discuss. A very important factor for a successful discussion about most sensitive issues is having trust in the person you are talking to.

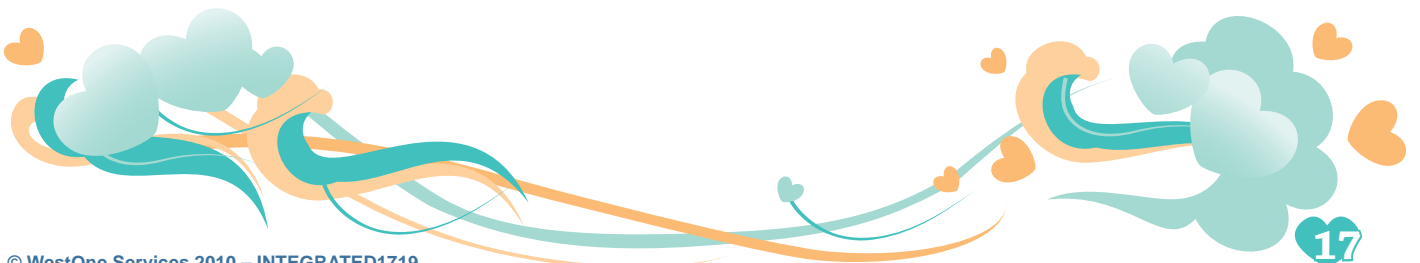
5.5 Male parts of the puzzle

Before any real discussion can take place about how the reproductive system works, it is necessary to learn about the parts that it is made up of.

You probably know about some parts of the male reproductive system and what they do, but there are a few others that you may not have heard of or are unsure about.

As you work your way through the next few sections on the male and female reproductive parts, use your *Boys and puberty* and *Girls and puberty* books to help with some of the explanations.

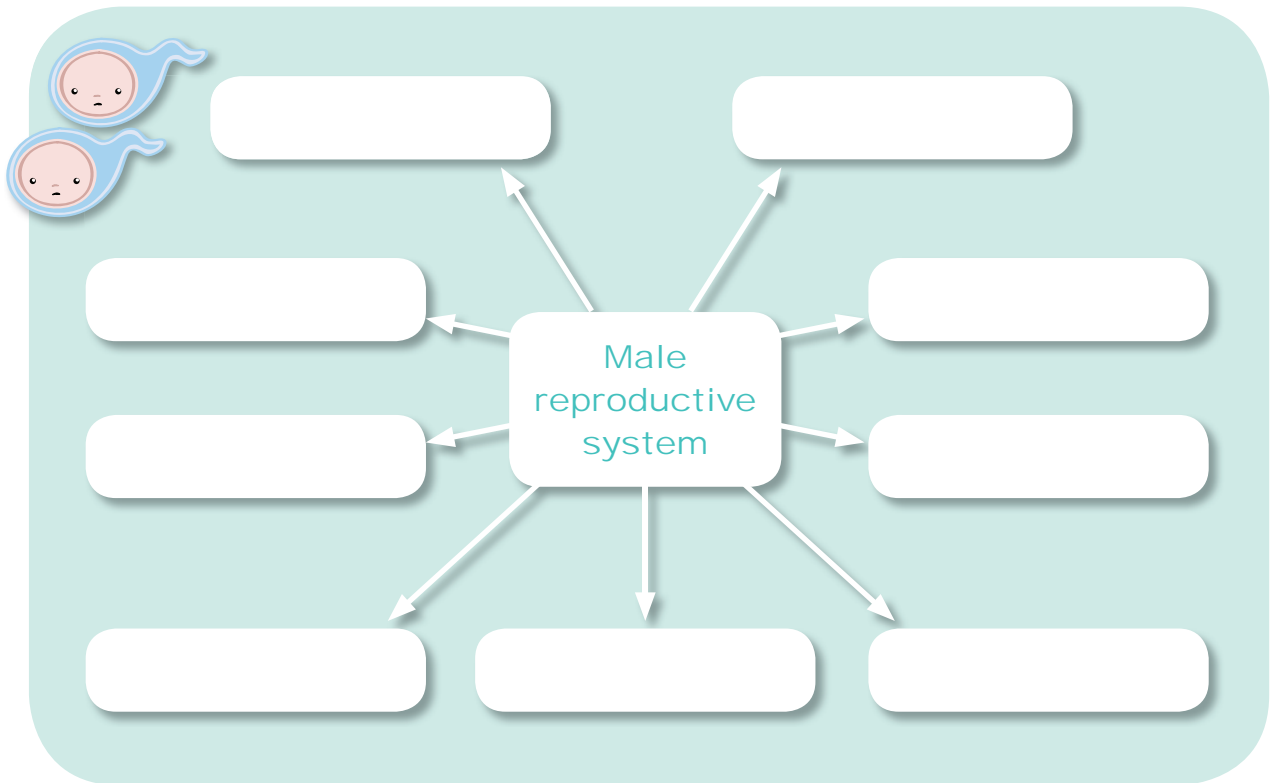
When talking about the reproductive system it is important to use the appropriate terms. For example, there are many slang names that may be OK



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to use when you are talking with your friends, but in a school setting, the correct terminology should be used so that you don't risk offending anybody.

There are nine parts associated with the male reproductive system. List as many as you can in the boxes below:



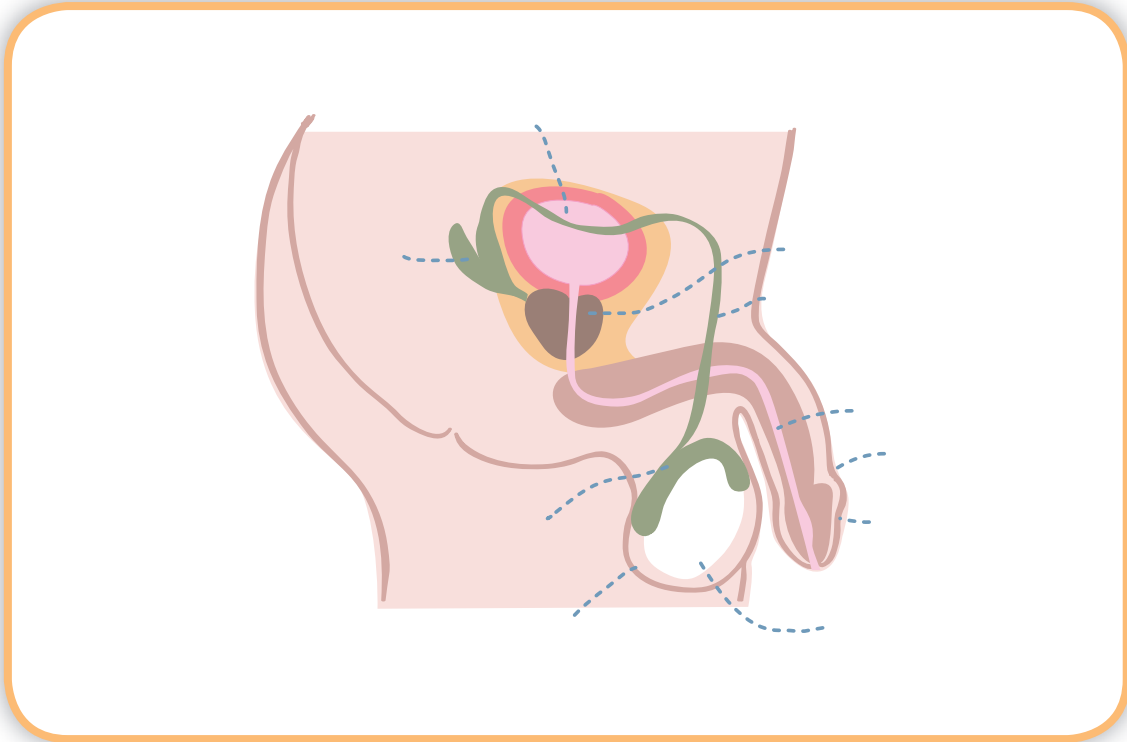
Check your answers in the Feedback and solutions section and make any necessary changes to your diagram above.

Now that you know what the parts are called, can you identify what they look like?

On the following diagram, label as many parts of the male reproductive system as you can by using the answers from the previous activity. The diagram has one extra labelled part – the bladder.



Check your answers in the Feedback and solutions section and make any necessary changes to your diagram.



You may have recognised a few of these parts. Now that you know where they are, do you know what their function is?

Now try to complete the sentences on the following page using the words below:



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The _____ is the male sex cell that is produced in the _____. The testicles also produce the hormone called _____ that is responsible for producing the secondary sex characteristics such as more body hair, a deeper voice and bigger muscles.

The testicles are held in a sac known as the _____. This sac controls the temperature of the testicles by pulling them closer to the body when it gets cold and moving them further away from the body when it gets hotter.

The testicles produce millions of sperm that are stored in a tube-like structure called the _____. The sperm leave the epididymis via a tube called the _____. On the way, it passes two glands known as the _____ gland and the _____. These two glands secrete white fluid called _____ which helps the sperm in its travels.

As the vas deferens reaches the bladder, its name changes to the _____ which is then responsible for carrying the sperm and semen out of the penis. It is also responsible for carrying the _____ from its storage place in the _____.

The _____ is the male organ that is used for urination and sexual intercourse. The tip of the penis is covered by a flap of skin known as the _____, although this is sometimes removed for health and cultural reasons.



To check your answers, use your *All Systems Are GO!* CD-ROM and click on 'Male reproductive system' to view the male reproductive parts.

5.6 Female parts of the puzzle

The female reproductive system is made up of the following parts:

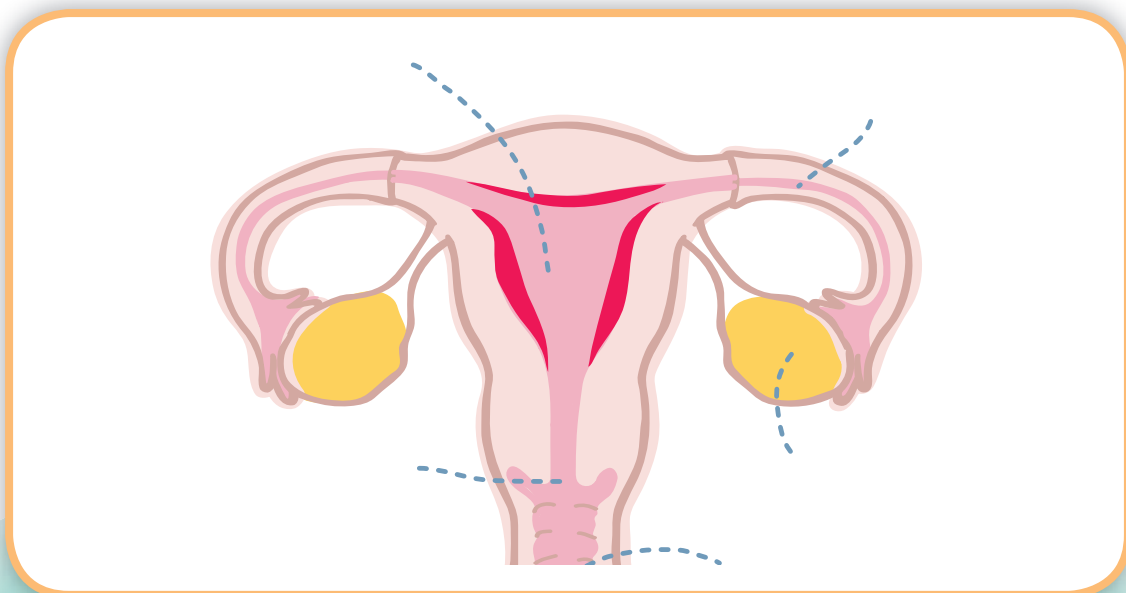


On your computer, type in the following: <kidshealth.org>.

Click on:

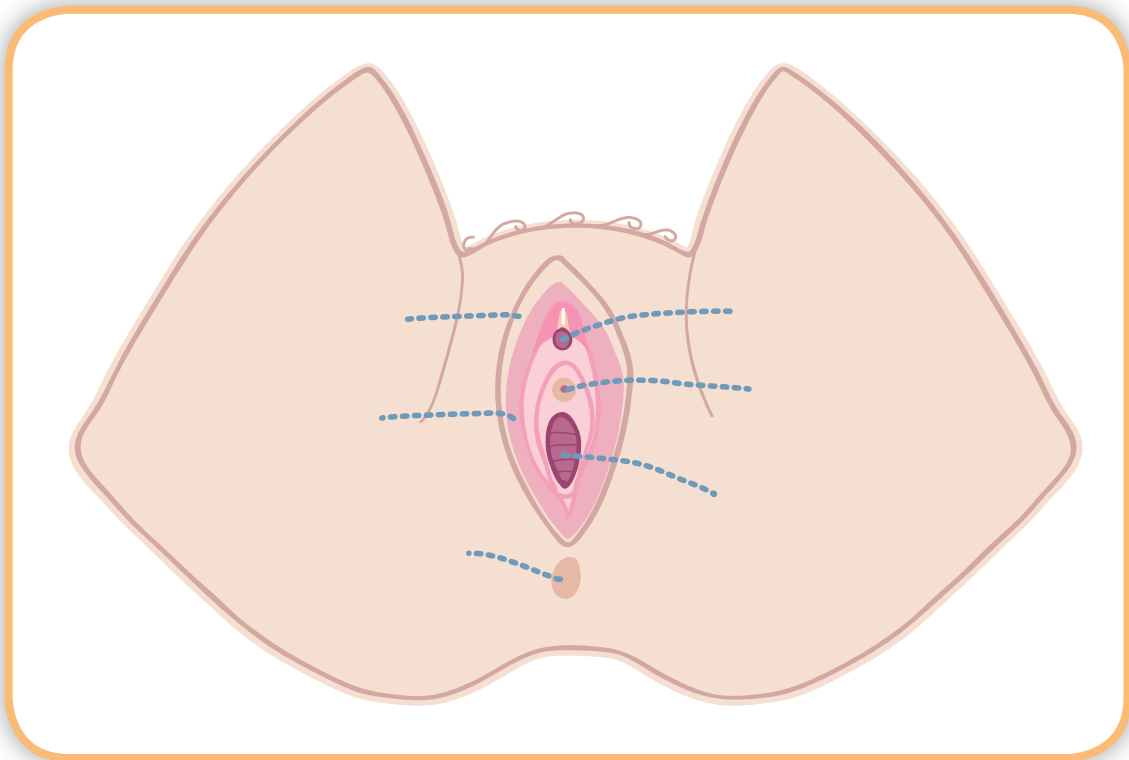
- ♥ 'Teens site'
- ♥ 'Sexual Health'
- ♥ 'Your Changing Body'
- ♥ 'Female Reproductive System'
- ♥ Select the box 'CLICK HERE FOR A FULL DIAGRAM'.

Label the internal parts of the female reproductive system.



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Label the external parts of the female reproductive system.



On your *All Systems Are GO!* CD-ROM, use 'Female reproductive system' to help you complete the table below:

Reproductive system	Definition
cervix	
	a small sensory organ that is present only in the reproductive system of female mammals
	tube that connects the ovary and uterus where fertilisation takes place

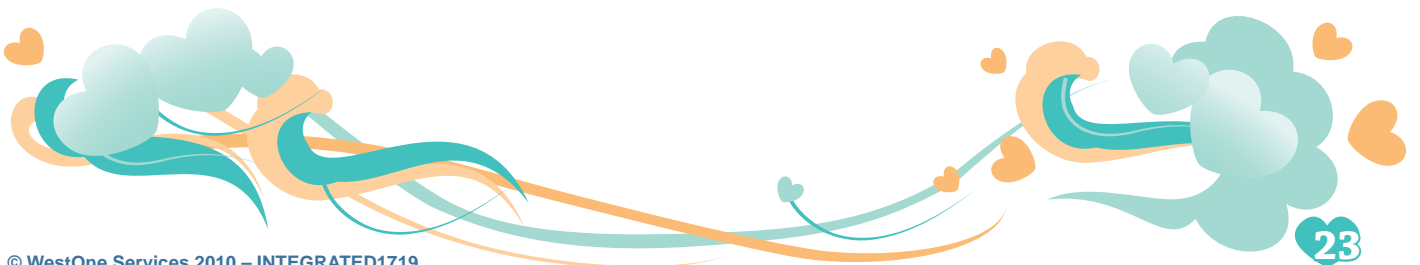
Reproductive system	Definition
hymen	
	larger of two skin flaps that protect the vaginal opening
labia minora	
ovary	
	place where the baby develops during pregnancy
	a muscular, tubular tract that leads from the female internal reproductive organs to the outside of the body; also a pathway for sexual intercourse, menstrual flow and giving birth

5.7 The reproduction puzzle

A good way to remember information is to read it over as many times as you can. This includes using puzzles like the one below.

Find the parts of the female reproductive system hidden in the following word sleuth. Shade the letters of each word as you find it, and tick it off the list.

- | | | |
|---|---------------------------------------|-----------------------------------|
| <input type="checkbox"/> fallopian tube | <input type="checkbox"/> vagina | <input type="checkbox"/> cervix |
| <input type="checkbox"/> uterus | <input type="checkbox"/> ovary | <input type="checkbox"/> clitoris |
| <input type="checkbox"/> labia minora | <input type="checkbox"/> labia majora | <input type="checkbox"/> hymen |



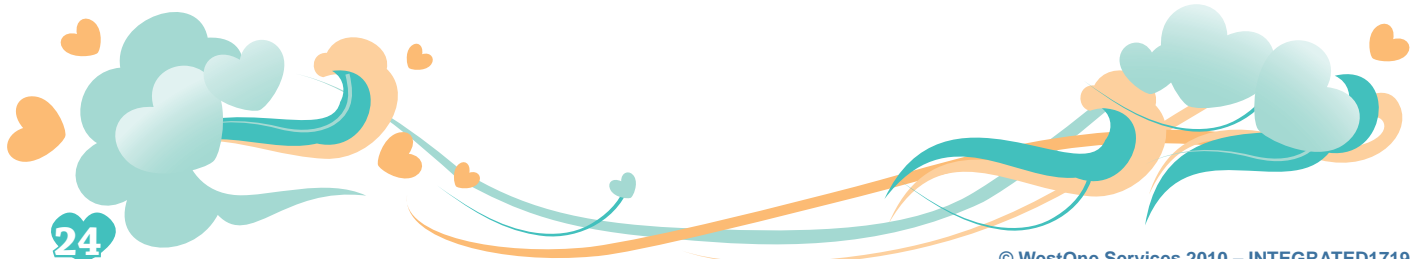
U	T	E	R	U	S	W	B	C	R	Z	T	F
L	E	Q	R	S	L	O	P	M	K	K	A	L
A	R	O	N	I	M	A	I	B	A	L	S	C
N	N	O	S	L	F	I	F	G	L	A	T	L
H	A	O	R	Y	R	A	V	O	P	B	T	I
S	Y	R	K	C	I	Z	P	N	O	I	L	T
V	I	M	V	A	G	I	N	A	B	A	O	O
S	Z	P	E	H	A	E	I	N	T	M	R	R
Y	D	I	W	N	L	A	K	C	D	A	N	I
O	V	A	T	G	I	N	T	R	I	J	S	S
W	I	U	D	A	L	I	O	N	T	O	I	P
Q	B	R	J	Z	O	P	O	S	P	R	Z	A
E	M	L	C	E	R	V	I	X	A	A	T	H



5.8 Reading *Lockie Leonard, Human Torpedo*



Now read some more of your novel *Lockie Leonard, Human Torpedo*. You need to make sure that you have at least read pages 21–40 before beginning the next activities.



5.9 Lockie's emotional roller-coaster – pages 21–40

Lockie was feeling this about himself on page 35 of the novel *Lockie Leonard, Human Torpedo*:

He hardly even knew himself anymore. He felt like he was making himself up as he went along, as if he'd started over and couldn't be the same person.

(Winton, T, 1993, Penguin Books, Melbourne)

Many teenagers feel like this during puberty as their emotions become like a roller-coaster, soaring to great heights then sinking to low depths.

As you did for pages 5–20 of the novel, create a roller-coaster graph for pages 21–40.

- ♥ On an A4 sheet of paper write the heading 'Lockie's emotional roller-coaster'.
- ♥ Write the subheading 'Pages 21–40' to indicate which pages of the book your roller-coaster is referring to.
- ♥ Write the following situations, which can be found between pages 21 and 40, under your subheading.
- ♥ Decide how positive or negative Lockie would be feeling in each situation.
- ♥ Draw a roller-coaster line to show Lockie's emotions.
- ♥ Create a box for each situation. In each box, write the number that relates to the situation and an adjective that describes how Lockie was feeling. Attach the box to the roller-coaster by drawing an arrow to where it fits on the roller-coaster.

- 1 Settling into school
- 2 Vicki walking past
- 3 Attending church
- 4 Woodwork class
- 5 Visiting guidance officer
- 6 Birthday
- 7 Vicki at the beach



- ♥ On the same page, using a different coloured pen, draw a roller-coaster line showing how you think you would feel if you were in each situation.

- ♥ Include the roller-coaster graph in your portfolio.



5.10 Changes for boys



Having a wet dream is one of the signs that puberty has begun.

To find out what a wet dream is, watch 'Wet dreams' on your *All Systems Are GO!* CD-ROM.

Now re-read pages 21 and 22 of your novel.

Lockie has just experienced a wet dream. It is a natural process that occurs when a boy starts producing sperm. It often happens when a boy has a sexual dream. In this case, Lockie had been dreaming about touching Vicki's breast.

How do you think Lockie would feel about this situation? Do you think he would be excited, confused or perhaps scared?

Use a word to describe the different emotions you think that Lockie might be experiencing, and indicate which part of those two pages relates to that emotion.

Emotion

Which part of the story

5.11 Sex characteristics timeline

Besides producing sperm and having wet dreams, there are many other signs that a boy has reached puberty. These are known as secondary sex characteristics.

On the following work sheet there are a number of pictures that show different secondary sex characteristics that boys will experience. On the next page you will find another work sheet called 'Male secondary sex characteristics timeline'. Cut out this work sheet.

♥ Now cut out the pictures.



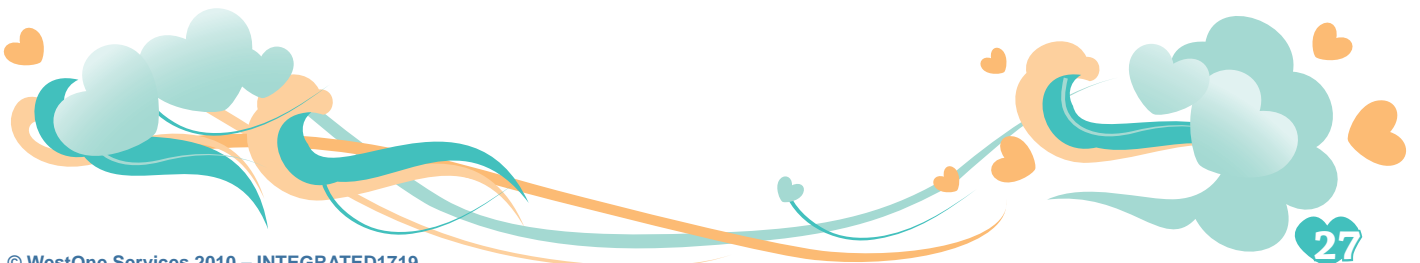
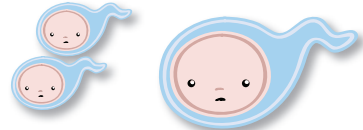
♥ Use 'Male secondary sex characteristics' on your *All Systems Are GO!* CD-ROM to help you to place the various pictures in the correct spot on the timeline.

♥ Secondary sex characteristics occur at different times and at different rates for all boys. Therefore, the age categories will overlap. Find the most suitable position for your cut-out pictures on the timeline.

♥ For each picture, write down the secondary sex characteristics that the picture is referring to.



♥ Place your completed timeline into your portfolio.

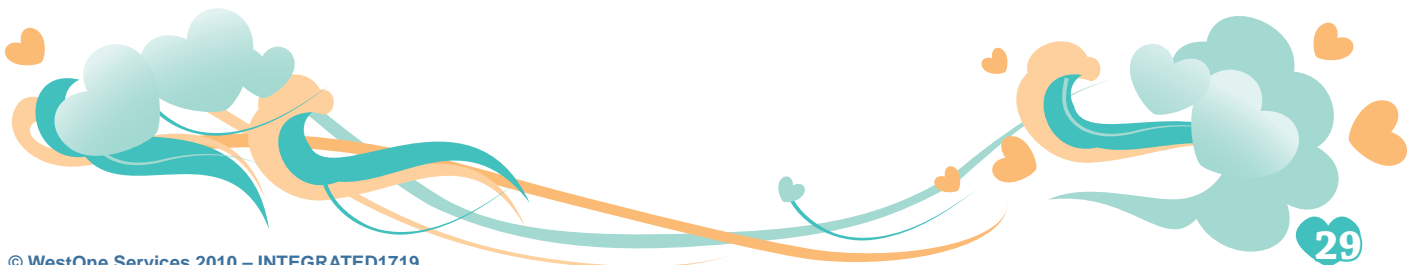
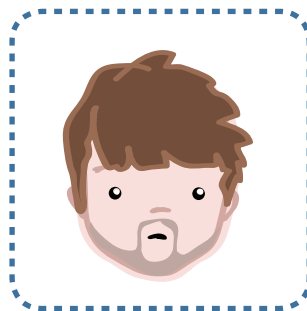
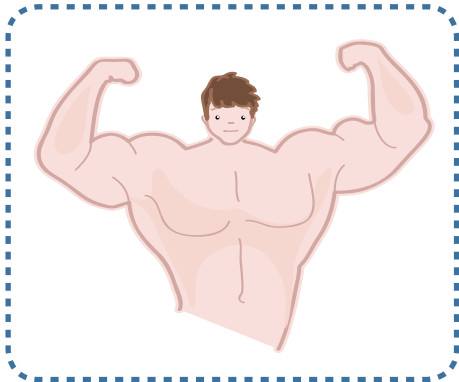
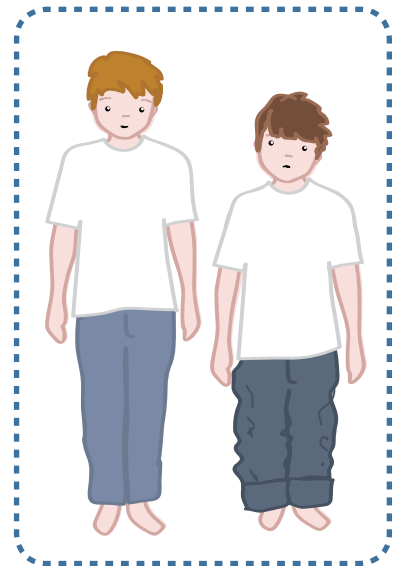
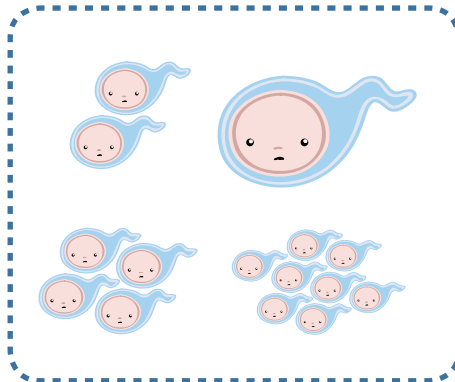
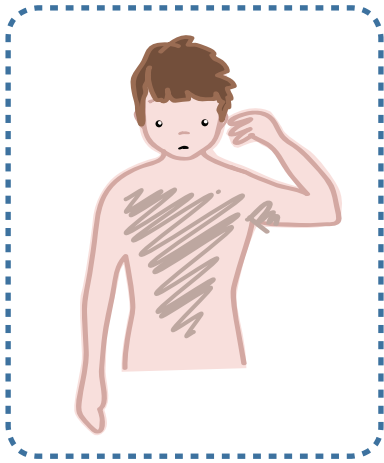


All Systems Are GO!





All Systems Are GO!

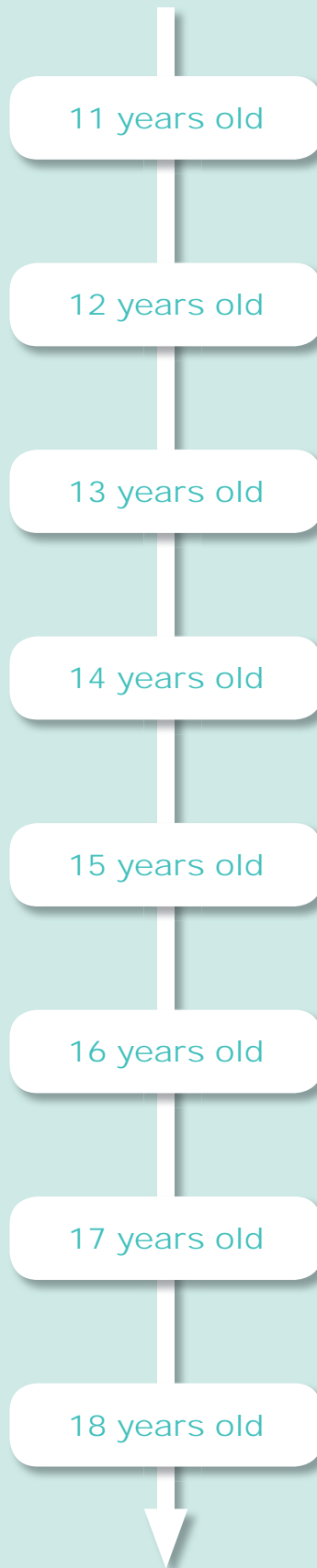


All Systems Are GO!





Male secondary sex characteristics timeline



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5.12 A menstrual time clock

Girls also have secondary sex characteristics that occur throughout puberty. Some are similar to those that boys experience, and some are different.

Similar characteristics are:

- ♥ hair growth – not as evident as in boys, but similarly appears under the arms and around the genitals
- ♥ development and maturity of the reproductive organs, which means for girls the vagina, uterus and ovaries
- ♥ signs of acne on the face.

Girls will also have other signs:

- ♥ development of nipple buds that will become breasts
- ♥ development of wider hips necessary for child birth.



On your *All Systems Are GO!* CD-ROM, watch 'Female secondary sex characteristics', which is about the changes that take place in girls.

The most important indicator for girls that puberty has begun is the onset of menstruation.

Menstruation is a natural process that all women go through. Understanding this process is important for both girls and boys.



To provide you with some information about the menstrual process, watch 'Menstruation'.

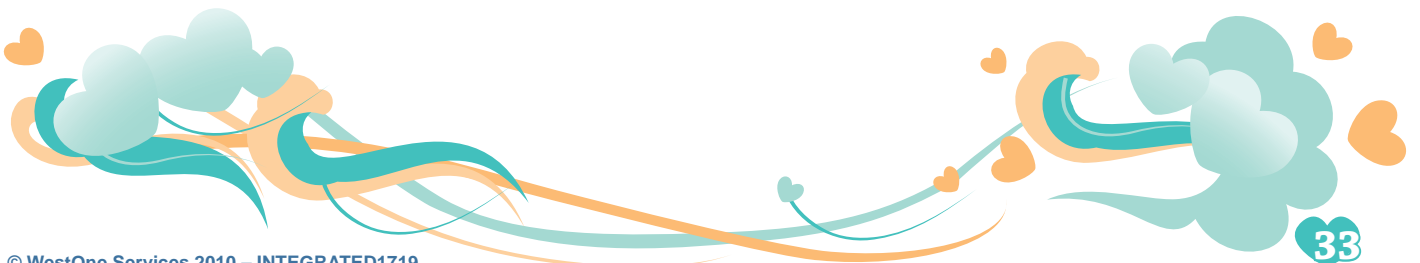


Now go to the website <kidshealth.org>.

Click on:

- ♥ 'Teens site'
- ♥ 'Sexual Health'
- ♥ 'For Girls'
- ♥ 'All About Menstruation'.

Your task is to design an information sheet that explains what menstruation is and how it works.



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Complete the following steps to help you to do this.

- ♥ Title an A4 sheet of paper 'The menstrual cycle'.
- ♥ Draw a model of the female internal reproductive parts.
- ♥ Use a series of arrows and text boxes to describe the menstrual process.
- ♥ Make sure you include the following information:

- the purpose of menstruation
- the role played by the ovaries, the fallopian tubes, the uterus and the vagina
- the importance of the hormone, estrogen
- the travel path of the egg
- the build-up and removal of blood in the tissue
- the timeframe in which all of this occurs.



Place your completed work in your portfolio.

5.13 Reading *Lockie Leonard, Human Torpedo*



Now read some more of your novel *Lockie Leonard, Human Torpedo*. You need to make sure that you have at least read pages 43–73 before beginning the next activities.

5.14 Lockie's emotional roller-coaster – pages 43–73

Create a roller-coaster graph to chart the emotions Lockie experiences on pages 43–73 in the novel. Follow these steps.

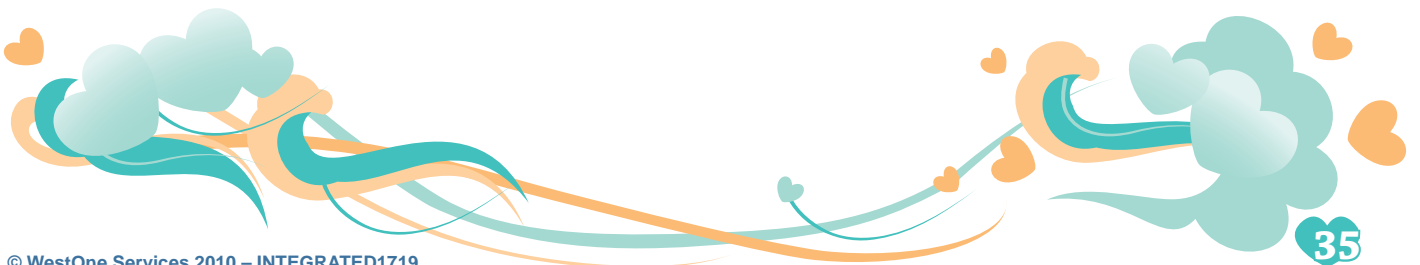


- ♥ On an A4 sheet of paper write the heading 'Lockie's emotional roller-coaster'.
- ♥ Write the subheading 'Pages 43–73' to indicate which pages of the book your roller-coaster is referring to.
- ♥ Write the following situations, which can be found between pages 43 and 73, under your subheading.

- 1 First kiss
- 2 Popular with other students
- 3 Hurting Vicki's feelings at the fortress
- 4 Seeing Vicki smoking
- 5 Making out on the sofa
- 6 When Vicki's dad walked in
- 7 Youth group



- ♥ Decide how positive or negative Lockie would be feeling in each situation.
- ♥ Draw a roller-coaster line to show Lockie's emotions.
- ♥ Create a box for each situation. In each box, write the number that relates to the situation and an adjective that describes how Lockie was feeling. Attach the box to the roller-coaster by drawing an arrow to where it fits on the roller-coaster.
- ♥ On the same page, using a different coloured pen, draw a roller-coaster line showing how you think you would feel if you were in each situation.
- ♥ Include the roller-coaster graph in your portfolio.



5.15 Which came first?

How well have you read the novel? The next few activities will allow you to reflect on the story so far.

Below are some situations that have occurred in the novel that relate to Lockie Leonard as he enters puberty.

Heading	Description
birthday boy	Lockie turns 13
first wet dream	when Lockie had his first wet dream
vegemite encounter	when the boys put vegemite on Lockie
teasing	Lockie getting teased by the girls
becoming popular	Lockie Leonard becomes popular with the other boys
first kiss	Lockie's first kiss with Vicki
falling into hedge	Vicki's first words to Lockie
making out	Lockie and Vicki together on the sofa
sex talk	when Lockie's mum wanted to discuss sex

Your task is to put the situations in the order that they occurred.

Write down each heading, in order, and record what page you found each one on.

Which came first?	Heading	Page number
1		
2		
3		
4		
5		
6		
7		
8		
9		

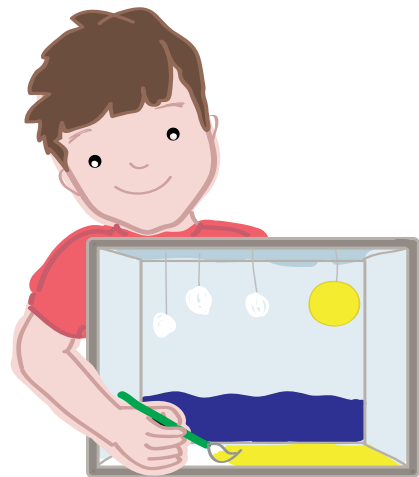


5.16 Diorama

A diorama is a three-dimensional snapshot of part of a story. It provides the opportunity to create a visual image of the setting and characters.

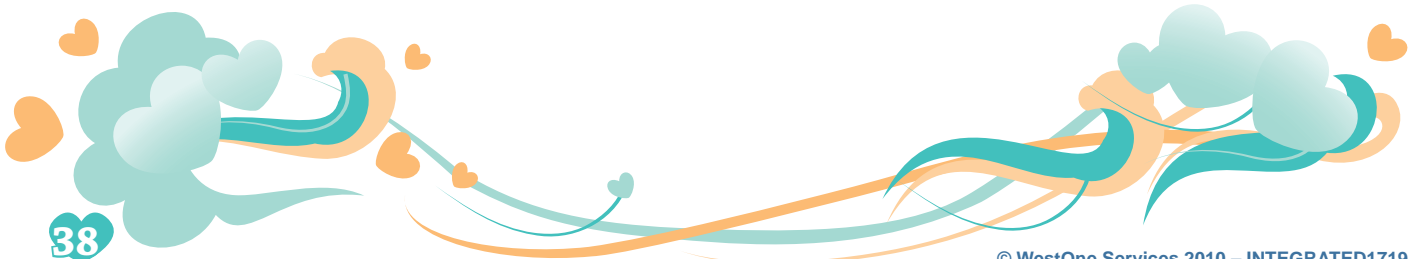
The following instructions will help you to construct your own diorama about the novel.

- ♥ Choose an image from the novel that you like. It could be a surfing scene, an image of the school, the church or perhaps the fortress.
- ♥ Find a cardboard box or something similar.
- ♥ Collect different items that will help with your diorama. For example, if it is a surfing scene you could colour the back of the box blue to represent the sky, and the base could be coloured yellow and dark blue to represent the beach and the ocean. You could hang some cotton balls from the top to represent clouds. If you have some plasticine you could create different characters and animals.
- ♥ Other items that could be used include: leaves, coloured paper, plastic material, sand, string, ribbon, buttons and small objects.
- ♥ Design your diorama to include images as you think Lockie would see them.
- ♥ Take a photo of your diorama when it is complete and include it in your portfolio.

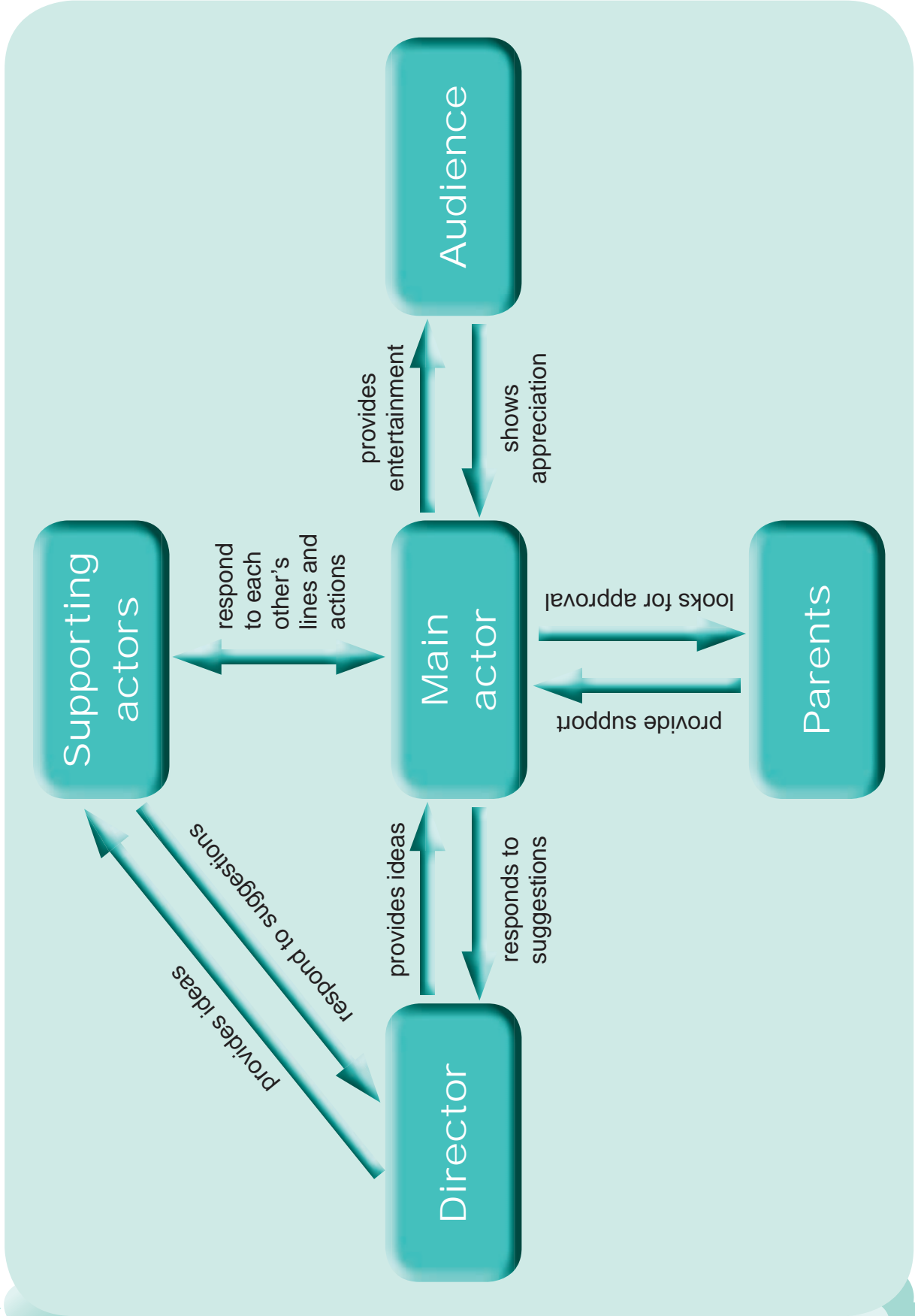


5.17 Sociogram

A sociogram is a visual way of showing relationships between people. The characters are represented by drawn boxes, and the main character is placed in the middle. Arrows are then drawn to link the characters showing the direction of the relationship. A brief statement is attached to the arrow to show the nature of the relationship.



For example, a sociogram for an actor in a school play might have the following structure.



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Using Lockie Leonard as the central character, create a sociogram in the space below using the following characters:

Dad

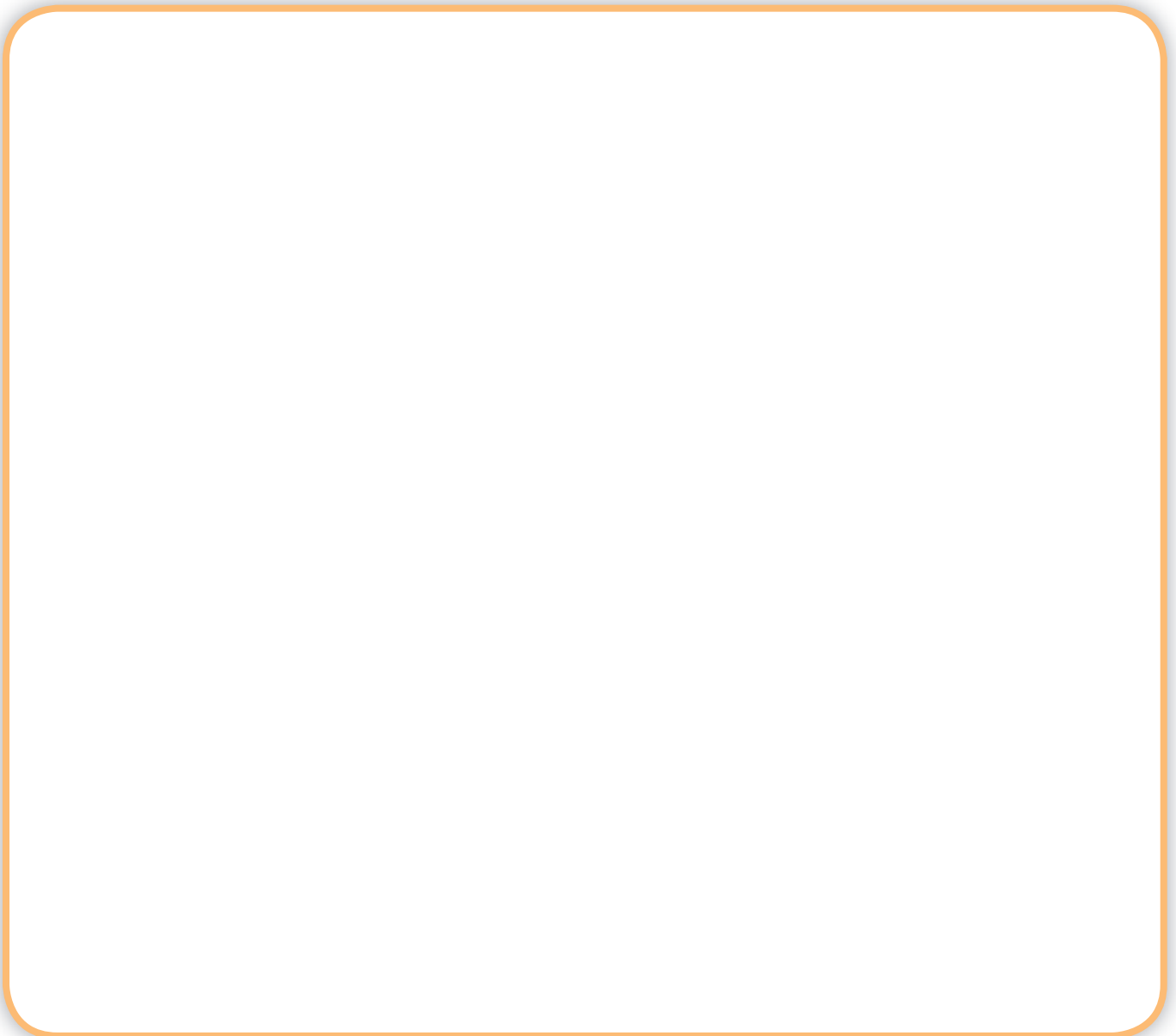
Mum

Vicki

Phillip

Mr East the
Guidance officer

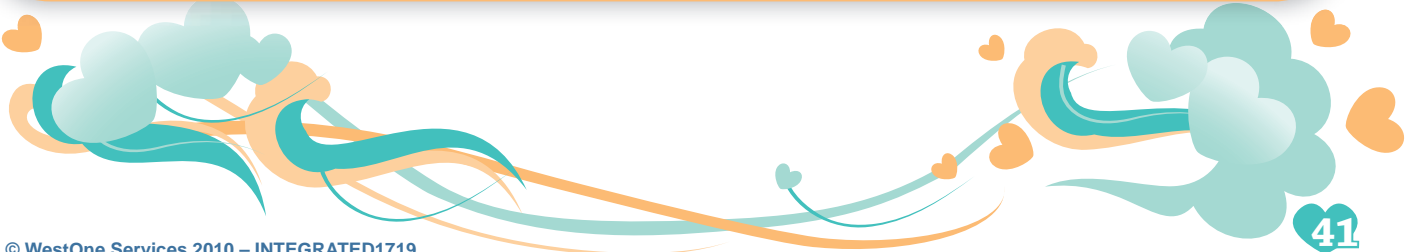
Borax the
woodwork teacher



Now create a sociogram with you as the central character.

Include three or more other characters that you have some kind of relationship with. For example, it could be your family, friends at school or perhaps a sporting team.

Create your sociogram in the space below.



5.18 Who am I?

Characters in a novel can be developed to have their own personalities. How they look and act can be described with words.

For example, which character from the Lockie Leonard novel do you think is described below?

Big, hairy with bad teeth
A 'slack' surfer
Uses vegemite a lot

Your answer:



Describe five characters from the novel in the following boxes. Think of the image that the author has tried to describe to the reader. Use words that describe how the characters look and act. Try not to make your clues too obvious.

Perhaps ask your teacher if they know which character you are describing. Put your answers on page 44.

Character **1**

Character **2**

Character 3 

Character 4 

Character 5 



Answers for Who am I?

Character 1:

Character 2:

Character 3:

Character 4:

Character 5:

5.19 Reading *Lockie Leonard, Human Torpedo*



Now read some more of your novel *Lockie Leonard, Human Torpedo*. You need to make sure that you have at least read pages 74–88 before beginning the next activities.

5.20 Lockie's emotional roller-coaster – pages 74–88



Between pages 74 and 88 Lockie finds himself in the situations listed below. Create a roller-coaster graph of Lockie's emotions (as you see them) in these situations by following these steps.

- ♥ On an A4 sheet of paper write the heading 'Lockie's emotional roller-coaster'.
- ♥ Write the subheading 'Pages 74–88' to indicate which pages of the book your roller-coaster is referring to.

♥ Write the following situations, which can be found between pages 74 and 88, under your subheading.

♥ Decide how positive or negative Lockie would be feeling in each situation.

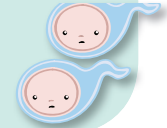
♥ Draw a roller-coaster line to show Lockie's emotions.

♥ Create a box for each situation. In each box, write the number that relates to the situation and an adjective that describes how Lockie was feeling. Attach the box to the roller-coaster by drawing an arrow to where it fits on the roller-coaster.

♥ On the same page, using a different coloured pen, draw a roller-coaster line showing how you think you would feel if you were in each situation.

♥ Include the roller-coaster graph in your portfolio.

- 1 Elected as president
- 2 During the 'passion sessions'
- 3 Not bringing Vicki to see his home
- 4 The day of skiing



5.21 Baby beginnings

The purpose, of course, of all the various parts of the male and female reproductive systems is to make it possible to produce babies.

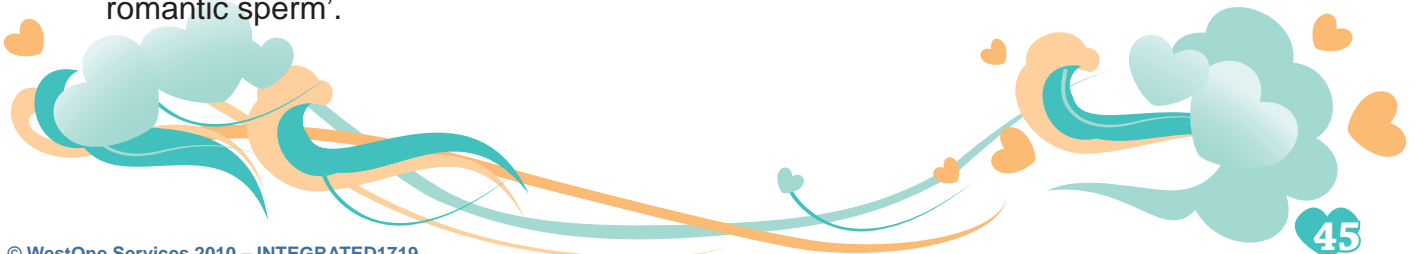
Two very important things to remember about reproduction are:

- ♥ when a boy begins to produce sperm, he is capable of making a baby
- ♥ when a girl has her first period, she is capable of making a baby.

Having a baby when you are 13 years old! That is pretty scary stuff. No wonder Lockie was a little scared to 'go all the way' with Vicki. He didn't 'want a baby or a wife' or to 'do anything that serious'.



The book *Where did I come from?* explains the process of making a baby very well. Take some time to read the book. In fact, read right up to the section, 'The romantic sperm'.

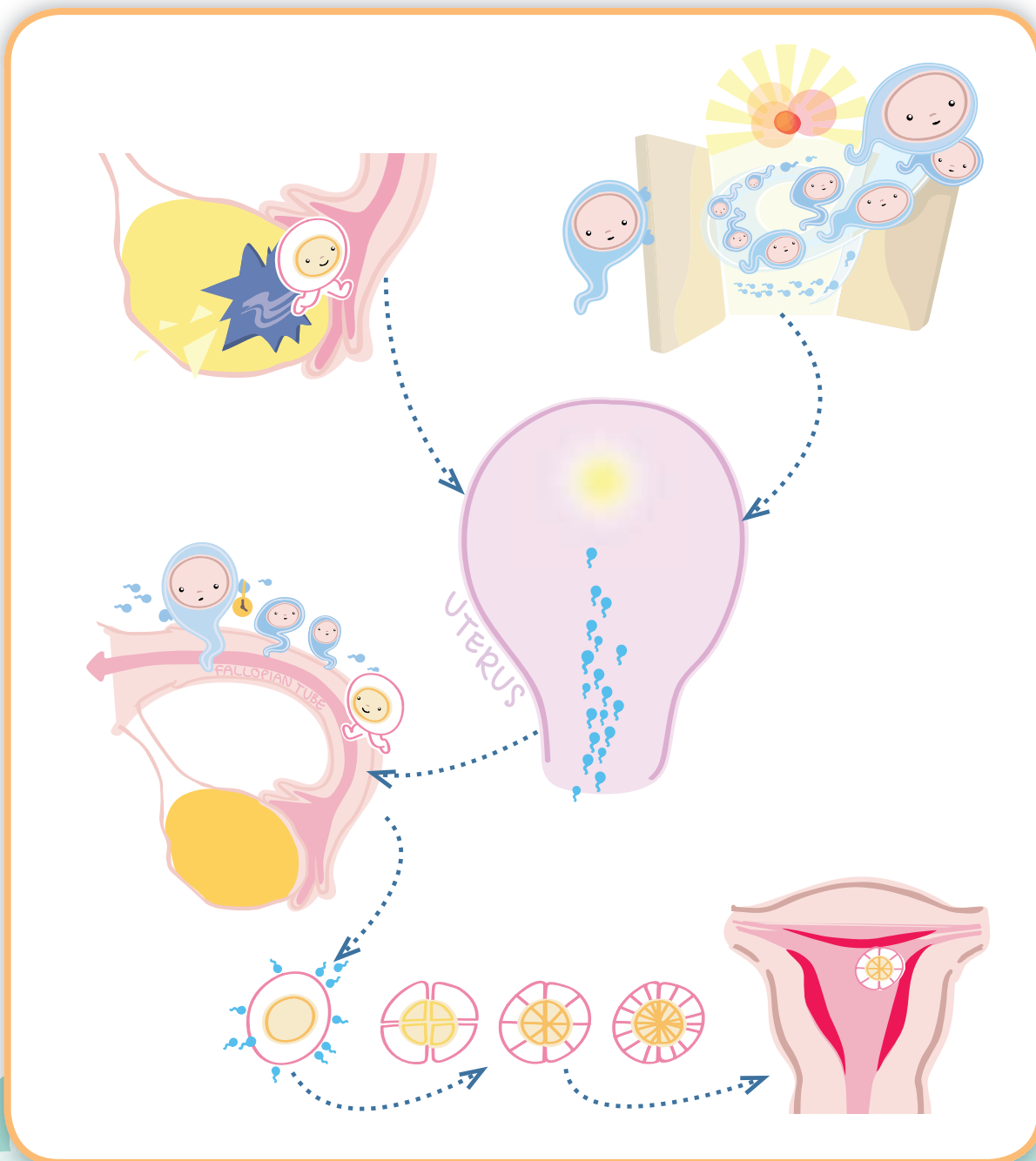


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Did you learn anything new? Write down one new thing you have learnt, or leave the line blank if you did not learn anything new.

In 'The romantic sperm' section of *Where did I come from?*, conception is described as the time from when the sperm enters the vagina until the fertilised egg is embedded in the uterus ready for pregnancy to take place.

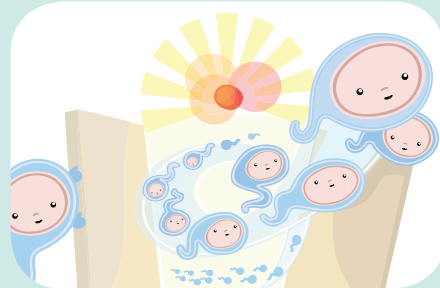
The pictures below describe the conception process:



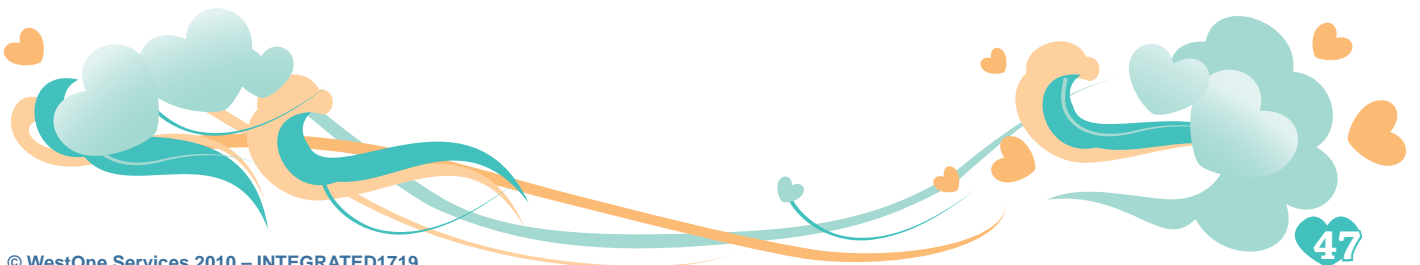
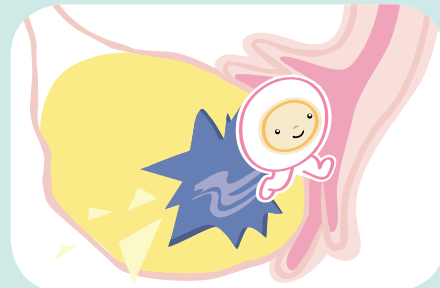
Try and explain the conception process by describing what is happening in each picture.

How well did you do? To make sure you have everything in the correct order, fill in the spaces beside each picture with the correct statements listed on page 49.

1



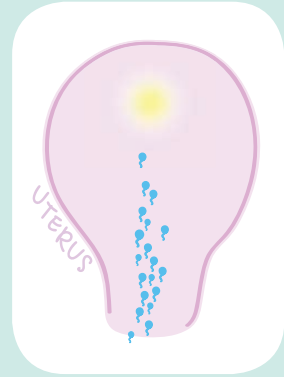
1



All Systems Are GO!

1

2



1

2

3

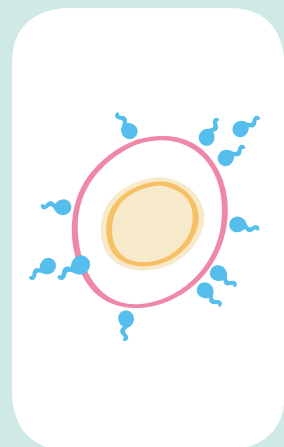


1

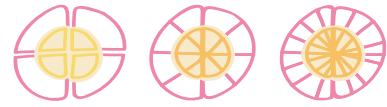
2

3

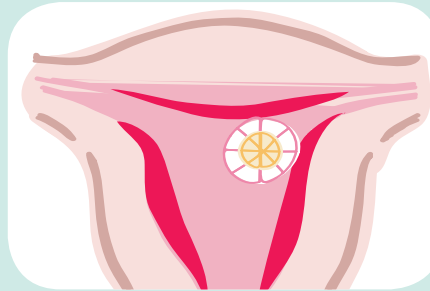
4



1



1



The conception process

Match the correct statements to the pictures above.

Only one sperm unites with an egg.

The penis releases millions of sperm into the vagina.

Sperm survive in the fallopian tube for about five days.

Fertilisation occurs when the sperm and egg unite.

The fertilised egg attaches to the uterus to begin pregnancy.

Sperm consists of a head, and a tail that helps it swim.

Sperm makes its way up through the uterus.

The egg only survives for a few hours in the fallopian tube.

Two eggs being fertilised by two sperm = non identical twins.

Fertilisation takes place in the fallopian tube.

The fertilised egg continually divides to become a baby.

One egg being fertilised by one sperm and then splitting into two = identical twins.

The ovary usually releases one egg per month.

5.22 Making a baby

After the conception process the fertilised egg is now attached to the uterus through a tube that is known as the umbilical cord. The mum provides the developing baby with the nourishment that it needs to survive through the umbilical cord. The mum can also pass on harmful substances to the developing baby. For example, if a mother smokes during pregnancy, the harmful chemicals are passed onto the baby. This also occurs with alcohol and other drugs. In fact, everything that the mum consumes is passed onto the baby during pregnancy.

What happens to the umbilical cord? After birth, the cord is cut and tied off. Eventually it will drop off and become the bellybutton.

The fertilised egg is called an embryo for the first eight weeks.

At the end of eight weeks the embryo becomes a foetus. It changes its name to show that it now has all the parts that make up a human being, although you may not recognise them just yet.

The embryo is only this big:

at two weeks

at four weeks

at eight weeks

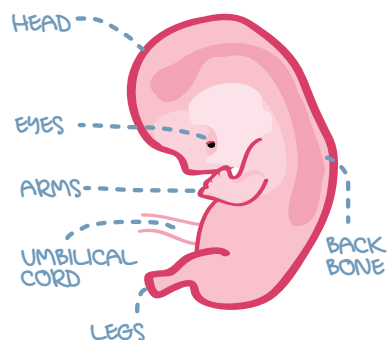


Features of an eight-week foetus

- ♥ The neck is curved which makes the head tilt forward.
- ♥ The head is large compared to the rest of the body.
- ♥ The fingers and toes are webbed a bit like a duck's feet.
- ♥ The fingers and toes are short and look like little bumps coming from the hands and feet.
- ♥ The eyes are covered by eyelids, but you can see through the skin so the eyes look black.
- ♥ The foetus is about two cm in length, about the size and shape of a kidney bean.
- ♥ The foetus weighs about one gram.

1

At eight weeks the foetus looks like this:

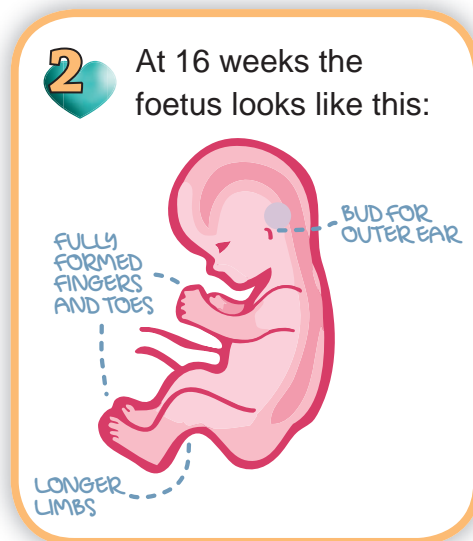


Time to create your eight-week-old foetus!

- ♥ You will need a round balloon and a texta.
- ♥ Blow your balloon up so that the surface is tight enough for you to draw on. Hold the end closed so that the air doesn't escape.
- ♥ With your texta, draw the features listed on the previous page onto your balloon so that it looks something like the picture of the eight-week foetus. You can also use the internet and textbooks to find pictures that will help you with your drawings.
- ♥ When you have finished, release the air from the balloon. Even though the deflated balloon is obviously bigger than a kidney bean, it does at least have the features of an eight-week-old foetus.
- ♥ Put your balloon foetus aside ready to compare with the 16-, 24- and 38-week foetuses you will create.

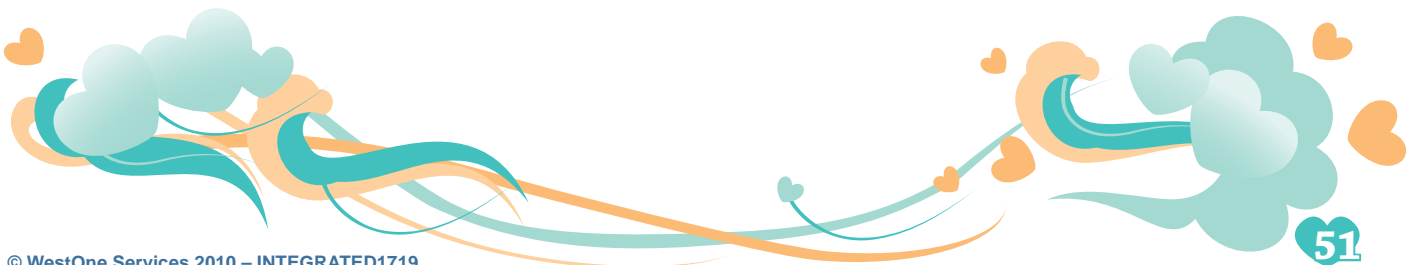
Features of a 16-week foetus

- ♥ The head and neck is held much straighter.
- ♥ The limbs are easy to recognise.
- ♥ The fingers and toes are fully formed.
- ♥ Fingernails and toenails are present.
- ♥ The vocal chords have developed.
- ♥ The foetus is about 13 cm in length, about the size of an avocado.
- ♥ The foetus weighs about 140 grams.



Time to create your 16-week-old foetus!

- ♥ Use your second round balloon.
- ♥ Blow your balloon up so that the surface is tight enough for you to draw on, and hold the end closed so that the air doesn't escape.



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- ♥ With your texta, draw the features listed above onto your balloon so that it looks something like the picture of the 16-week foetus. You can also use the internet and textbooks to find pictures that will help you with your drawings.
- ♥ When you have finished, find some sand and pour it into the balloon until it weighs 140 grams. (See if you can borrow some kitchen scales from home to weigh your balloon.)
- ♥ Blow your balloon up until it is about the size of a large orange and tie it off.
- ♥ Put your balloon foetus aside ready to compare with the others later.

Features of a 24-week foetus

- ♥ The skin is wrinkled and red.
- ♥ There is a waxy substance all over the body.
- ♥ The foetus is sucking its thumb.
- ♥ The fingernails and toenails have grown.
- ♥ The hair on the head begins to grow.
- ♥ The foetus is about 30 cm in length.
- ♥ The foetus weighs about 600 grams.

3

At 24 weeks the foetus looks like this:



Time to create your 24-week-old foetus!

- ♥ Use your first long balloon.
- ♥ Blow your balloon up so that the surface is tight enough for you to draw on, and hold the end closed so that the air doesn't escape.
- ♥ With your texta, draw the listed features onto your balloon so that it looks something like the picture of the 24-week foetus. You can also use the internet and textbooks to find pictures that will help you with your drawings.
- ♥ When you have finished, find some sand and pour it into the balloon until it weighs 600 grams. (See if you can borrow some kitchen scales from home to weigh your balloon.)

- ♥ Blow your balloon up until it is about 30 cm long and tie it off.
- ♥ Put your balloon foetus aside ready to compare with the others later.

Features of a 38-week foetus

- ♥ There is more hair on the head.
- ♥ The eyebrows and eyelashes have developed.
- ♥ The fingernails and toenails are long.
- ♥ The skin is not wrinkled anymore.
- ♥ Small breast buds have developed.
- ♥ The foetus is about 50 cm in length.
- ♥ The foetus weighs about 3500 grams.

4

At 38 weeks the foetus looks like this:



Time to create your 38-week-old foetus!

- ♥ Use your second long balloon.
- ♥ Blow your balloon up so that the surface is tight enough for you to draw on, and hold the end closed so that the air doesn't escape.
- ♥ With your texta, draw the features listed above onto your balloon so that it looks something like the picture of the 38-week foetus. You can also use the internet and textbooks to find pictures that will help you with your drawings.
- ♥ Blow your balloon up until it is about 50 cm long and tie it off.
- ♥ Find a large blank piece of paper, or perhaps join a number of smaller pages together. Place your four foetuses down in order of age.
- ♥ Use a heading to show the age of each foetus.
- ♥ Highlight some of the main features for each foetus. Put the name of the part (eg arms, legs, spine or eyes) in a box and draw an arrow to the part that it represents.
- ♥ Take a photo of your creation and place it in your portfolio.



5.23 Happy birthday!

To complete the reproduction story, read the remainder of *Where did I come from?* to see how you developed for nine months before making your grand entrance into the world.

Your first day! A memorable experience!

Except for the birthday person!

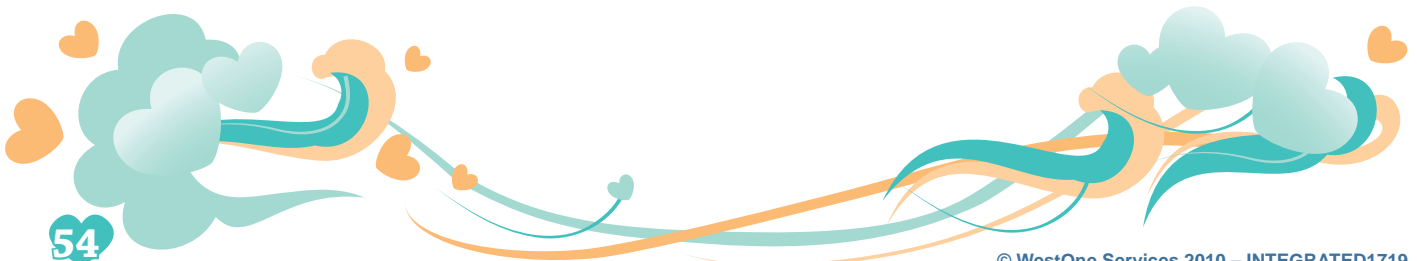
To find out about your big day you need to ask someone who was there. Your mum might be a good place to start.

Ask your mum if she can help you answer the following questions. Try and think of some other questions that will help complete the story of your birth. Use this time to help you answer any questions that you might have about the whole process. For example, what is morning sickness?

- 1 What experiences can your mum recall about when she was pregnant with you? For example, did you kick a lot, did your mum have morning sickness or were you an easy pregnancy for your mum?

- 2 Were you born on the due date? If not, were you early or late and by how much?

- 3 How long was your mum in labour? Ask your mum to explain what labour is and how it felt.



4 Where were you born? List the country, state, town, hospital or location.

5 Were you a natural birth or delivered by caesarean? Ask your mum to explain the difference between the two.

6 What did you look like when you were born? Did you look blue, did you have hair and did you cry straight away? Were there any other interesting features?

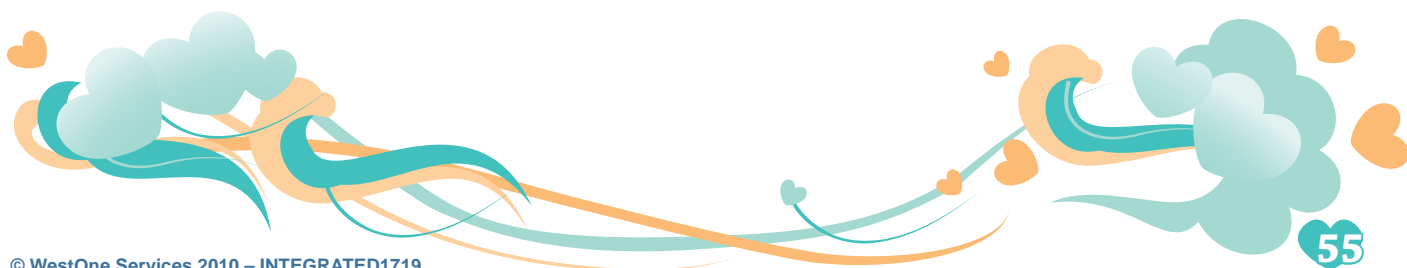
7 What did you weigh and how long were you?

8 How long did your mum stay in hospital for?

9 Where did your first and middle names come from?

10 Ask your mum to describe her feelings about your first few days at home?

11 Think of some other questions that you might like to ask.



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Your task is to design a page that has a suitable title relating to your birth and includes all the information that you have just found out about your birth. If possible, add a photo of your younger days as a baby.



When you have finished, place your work in your portfolio.

5.24 Spreading the virus message

Lockie mentioned that he didn't want a wife or baby when he was having a 'passion session' with Vicki. He also mentioned not wanting to get AIDS.

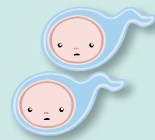
But what is AIDS?

AIDS is an illness that affects the body because the body's immune system, which fights illnesses, has been weakened by a virus known as HIV.

HIV and hepatitis are two examples of a bloodborne virus. These are viruses that are transmitted through contact with infected blood. There are quite a few ways that a bloodborne virus can be passed from one person to another:

AIDS stands for:

Acquired
Immune
Deficiency
Sndrome



HIV stands for:

Human
Immunodeficiency
Virus

unprotected sex

if either person has had contact with infected blood and the male is not wearing a condom during sex

blood transfusion

blood donors are carefully checked to see if their blood is contaminated, but there have been cases where infected blood has been used

sharing needles

if two people share a needle, eg when they are taking drugs, then infected blood can be transferred from one to the other

mother to unborn child

through the umbilical cord

With what you know about the role of the umbilical cord, explain how you think it might be possible for the baby to contract a bloodborne virus.



In the world there have been millions of deaths from AIDS-related illnesses. Fortunately, in Australia the number of deaths is actually reducing. This is because of more education about AIDS, and an increase in suitable medications to manage the illness.

In the following activity, it is your task to educate others by creating a poster that warns people of the dangers of HIV, and how to prevent contracting HIV.

Use the information you have been given and any other sources you can find, such as the internet or textbooks, to help with your poster.

Your poster should contain the following information:

- ♥ what HIV is
- ♥ how HIV is transmitted
- ♥ some useful statistics to highlight the problem that exists
- ♥ ways to prevent HIV from spreading.

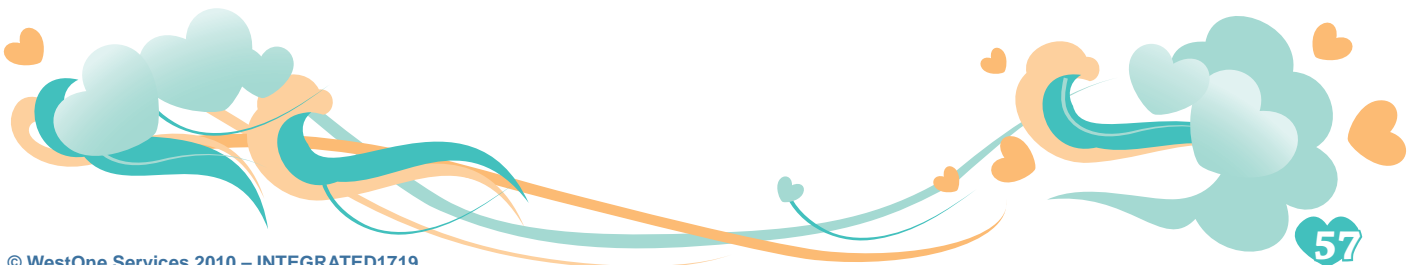


When you have finished, place your work in your portfolio.

5.25 Reading *Lockie Leonard, Human Torpedo*



Now finish the remaining pages of your novel *Lockie Leonard, Human Torpedo*. If you have already finished reading the book, then use the time to skim over the final chapters.



5.26 Lockie's emotional roller-coaster – pages 89–132

- ♥ On an A4 sheet of paper write the heading 'Lockie's emotional roller-coaster'.
- ♥ Write the subheading 'Pages 89–132' to indicate which pages of the book your roller-coaster is referring to.
- ♥ Write the following situations, which can be found between pages 89 and 132, under your subheading.

- 1 When Sarge was shot at
- 2 Seeing the bogan with Vicki at the skate rink
- 3 Seeing the bogan's car at the police station
- 4 Surfing at camp
- 5 After the phone call to Vicki
- 6 At the end of the book



- ♥ Decide how positive or negative Lockie would be feeling in each situation.
- ♥ Draw a roller-coaster line to show Lockie's emotions.
- ♥ Create a box for each situation. In each box, write the number that relates to the situation and an adjective that describes how Lockie was feeling. Attach the box to the roller-coaster by drawing an arrow to where it fits on the roller-coaster.
- ♥ On the same page, using a different coloured pen, draw a roller-coaster line showing how you think you would feel if you were in each situation.
- ♥ Include the roller-coaster graph in your portfolio.



5.27 Stereotypes

Bogans! Surfies!

When you see these two words, what images come to mind?

Draw an arrow from each of the words below to either 'Bogan' or 'Surfie' to show which description best fits each of these 'types' of people.

Bogan!

ripple sole desert boots

laid-back attitude

grimy jeans

thongs

heavy metal shirt

tanned

unkempt hair

flannel shirt

board shorts

old car

high-powered car

Surfie!



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A stereotype is a word given to describe commonly held ideas or images about social groups or 'types' of people. More than likely your answers were very similar to those in the solutions section because we have an image of what different people 'should' look like. But it is not always the case that they do!

Puberty is a great example of stereotyping!

Here is a typical image of a sixteen-year-old girl and boy:

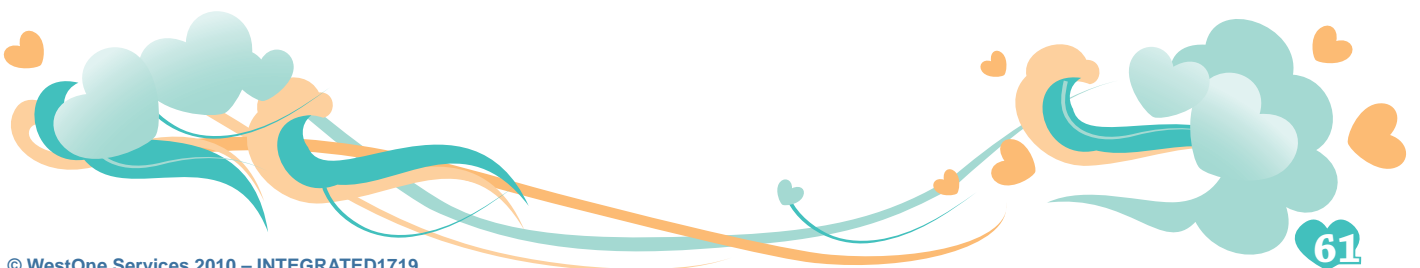


Is that the image that you have of 16-year-olds? Perhaps your image is more like these two:



In fact, all the images are correct. Everyone develops at a different rate during puberty; therefore, it is difficult to create a stereotype that fits everyone.

One thing is certain, though. A boy or girl going through puberty will experience an emotional roller-coaster which will affect their feelings.



5.28 Feelings

Throughout this unit, you have been provided with information about the different body systems:

- ♥ skeletal system
- ♥ circulatory system
- ♥ respiratory system
- ♥ digestive system
- ♥ reproductive system.

Everyone has the same body system, even though people might develop at a different rate.

Feelings are different!

As Lockie's emotional roller-coaster shows, emotions and feelings go up and down. People get upset and angry about different things.

Describe how you have felt, or think you might feel, in the following situations.

1 If you had a big pimple on your nose:

2 If someone teased you about having a big pimple on your nose:

3 If you were in a change room with other boys or girls and everyone was physically developed except for you:

4 If you were to receive an award in front of a school audience:

5 If you yelled at a friend for no reason:

6 If you didn't clean your room when your mum asked you to:

5.29 Making decisions

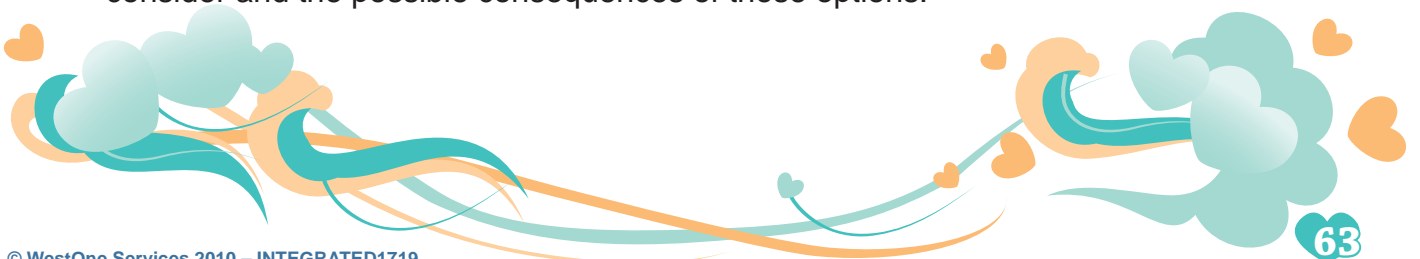
Sometimes, like during puberty, when our feelings are at their extreme, making sensible decisions can be a tricky business.

When making a decision, a person should consider all the available options and understand the consequences of each option. They then need to be prepared to live with those consequences of the option they choose.

For example, if you were teased about having a big pimple on your nose, the decision-making process could look like this:

Option	Consequence
ignore the person who is teasing you	since you haven't reacted, the person might leave you alone
make a sarcastic comment back to the person	the person might become aggressive
run away and cry	the person might continue to tease you because they got a reaction from you
make a humorous comment	the person might leave you alone as you haven't ignored the issue, but also haven't taken it too seriously

For the following situations, write down a couple of options that you could consider and the possible consequences of those options.



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- 1 You get into an argument with your mum because you didn't clean your room.

Option	Consequence

- 2 You felt bad for yelling at a friend for no reason.

Option	Consequence

- 3 You were scared to get up on stage to receive an award in front of a school audience.

Option	Consequence

5.30 Setting goals

Making decisions, no matter how emotional you are, becomes an easier process if you know what you want to achieve. This is called setting goals.

A person can set short-term goals like getting their homework completed, and long-term goals like going to university. Setting short-term goals is often necessary in order to achieve the long-term goals.

In the novel, Lockie and Vicki may have some long-term goals.

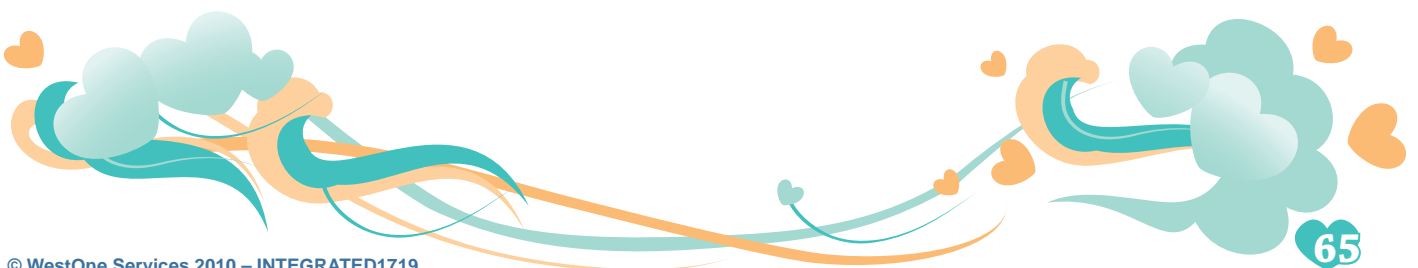
Lockie was into his surfing, so maybe competing in competitions at a higher level might be his long-term goal.

Vicki was considered to be a 'clever girl', so perhaps her long-term goal might be to go to university.

List three short-term goals that could help Lockie and Vicki achieve their long-term goals:

Lockie's short-term goals might be:

Vicki's short-term goals might be:



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But what would happen if Lockie and Vicki decided to have sex and Vicki became pregnant? Sometimes, decisions we make can change our opportunity to achieve our long-term goals.

Explain how you think their situation would change if they had a baby.

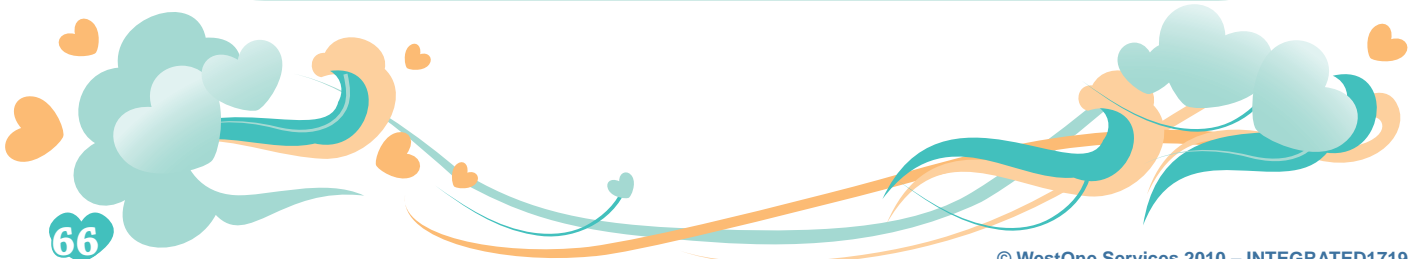
What about you?

Do you have some short-term and long-term goals? You might like to make a sporting team, or achieve a good grade in your next maths test. You might like to manage a farm when you get older, or travel around the world.

Setting goals, both short-term and long-term, is an important step. List three short-term goals and three long-term goals that you would like to achieve.

Short-term goals

Long-term goals





Circumstances can change even the best laid plans. Lockie Leonard has had plenty of adventures, but that is all part of growing up.

On your *All Systems Are GO!* CD-ROM, watch the clip titled 'Lockie Leonard Series Two' to see what Lockie is up to.

It's time to take puberty on! If you can set your goals, understand the consequences of your actions and control the roller-coaster of emotions that you will experience, then puberty will be a breeze.

All systems are GO!

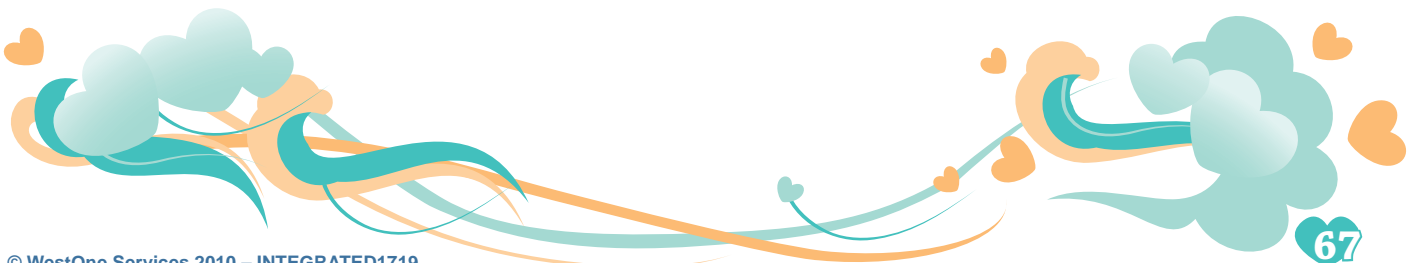
Enjoy the ride!



5.31 Keywords

The meanings of the keywords in the table below have already been included in the Keywords section of your portfolio. Read back through your work if necessary to find the keywords and their meanings, and then add each keyword to your portfolio next to its meaning.

emotions	Acquired Immune Deficiency Syndrome
conception	reproductive system
stereotype	menstruation
noun	secondary sex characteristics
adjective	Human Immunodeficiency Virus
puberty	

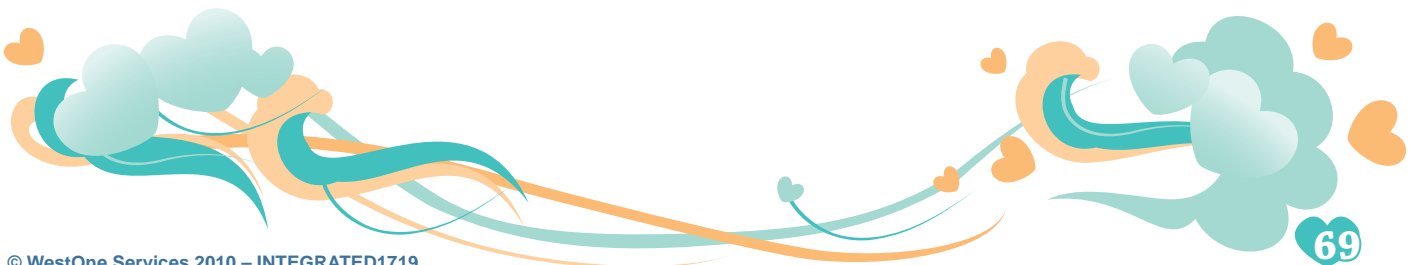


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Reproductive system

Feedback and solutions



5 Reproductive system

5.2 Storyboard

Select the main storylines and then re-create these storylines by drawing a simple picture with some words to explain what is happening.

Possible storylines you could use include:

- ♥ arrival in the new town
- ♥ first day at school
- ♥ surfing
- ♥ talk about sex
- ♥ being bullied.

5.3 Emotional roller-coaster

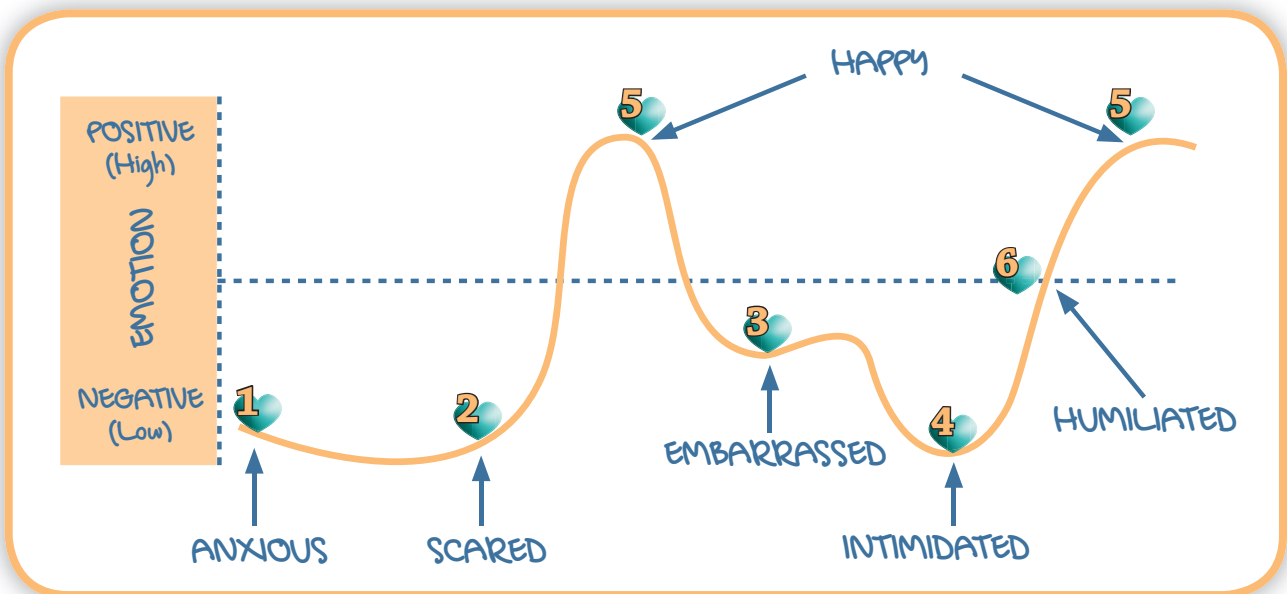
Complete the table below to show the link between adjectives and nouns.

Noun	Adjective
sadness	sad
boredom	bored
scare	scared
happiness	happy
relief	relieved
frustration	frustrated
embarrassment	embarrassed
power	powerful
amusement	amused

Create a diagram that shows the emotional roller-coaster that Lockie Leonard is travelling along.

Lockie's emotional roller-coaster during pages 5–20 could look like this:

- 1 Arriving in a new town
- 2 Attending school on the first day
- 3 Talking about sex with mum
- 4 Being bullied by other students
- 5 Going surfing
- 6 Dad doing something like turning the siren on at pick-up time.



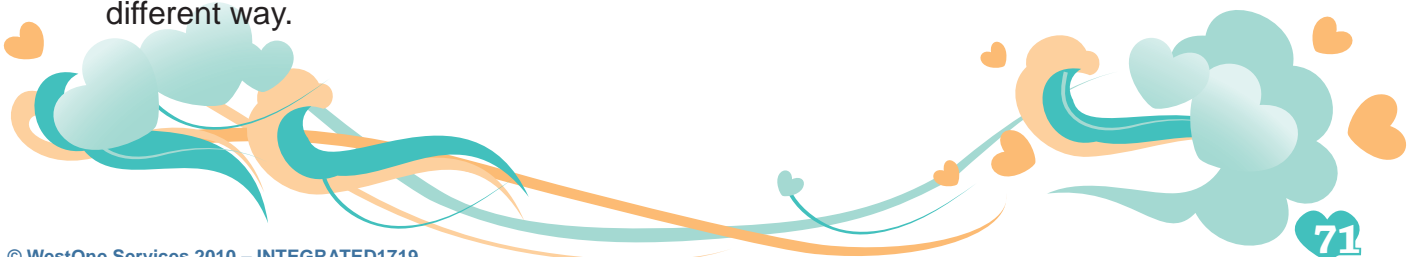
5.4 The talk

Describe Taylor's reaction at the prospect of having 'the talk'.

Taylor appeared horrified at the thought of having to talk about sex with her parents.

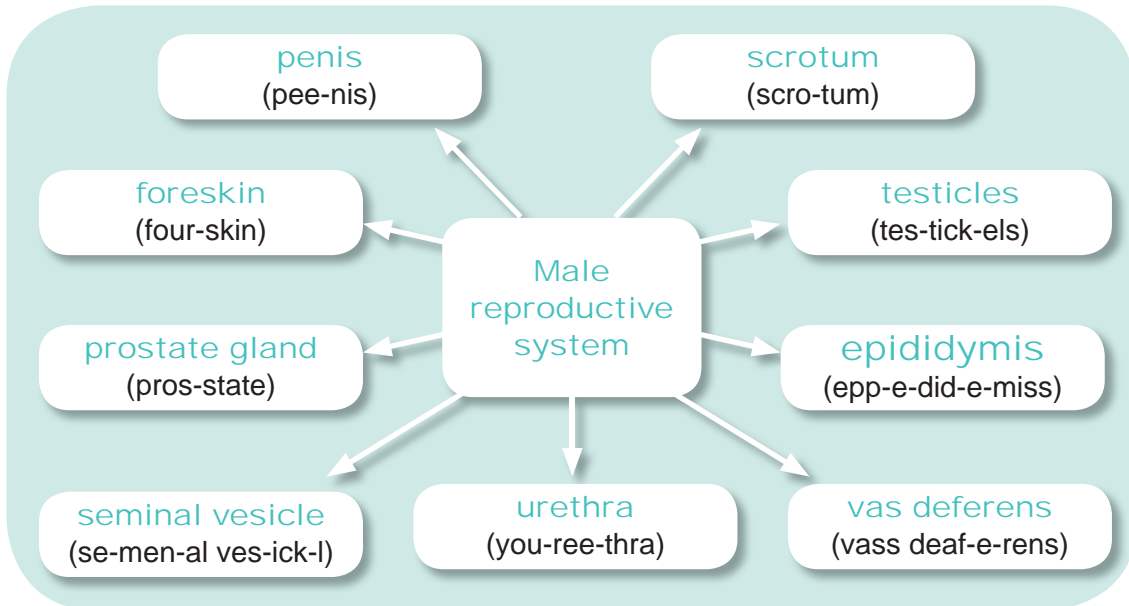
Describe how you felt, or how you think you would feel, at the prospect of having 'the talk'.

Answers will vary as everyone responds to sensitive situations in a different way.

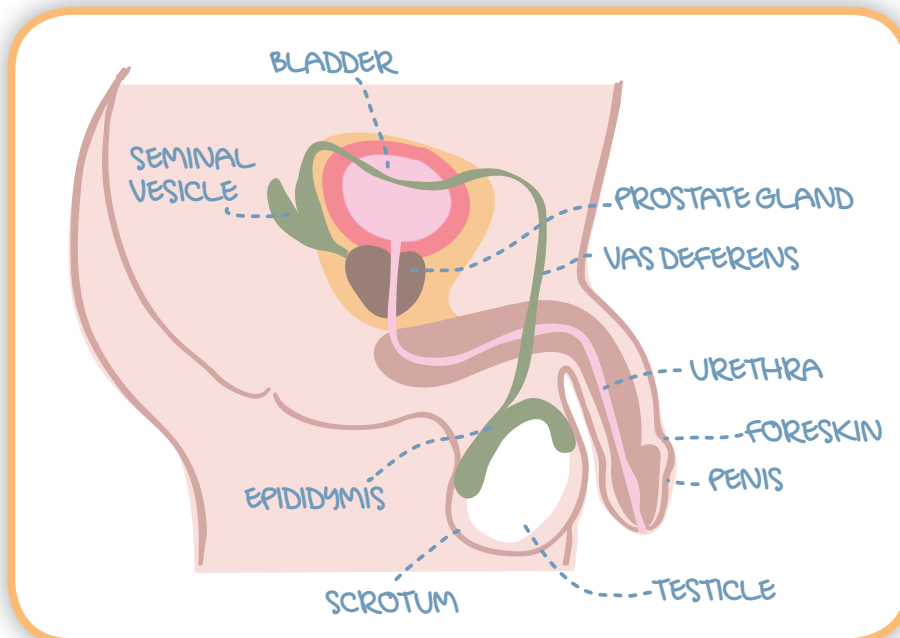


5.5 Male parts of the puzzle

There are nine parts associated with the male reproductive system. List as many as you can.



On the diagram below, label as many parts as you can.



Now that you know where they are, do you know what their function is?
Complete as many of the following sentences as possible.

The **sperm** is the male sex cell that is produced in the **testicles**. The testicles also produce the hormone called **testosterone** that is responsible for producing the secondary sex characteristics such as more body hair, a deeper voice and bigger muscles.

The testicles are held in a sac known as the **scrotum**. This sac controls the temperature of the testicles by pulling them closer to the body when it gets cold and moving them further away from the body when it gets hotter.

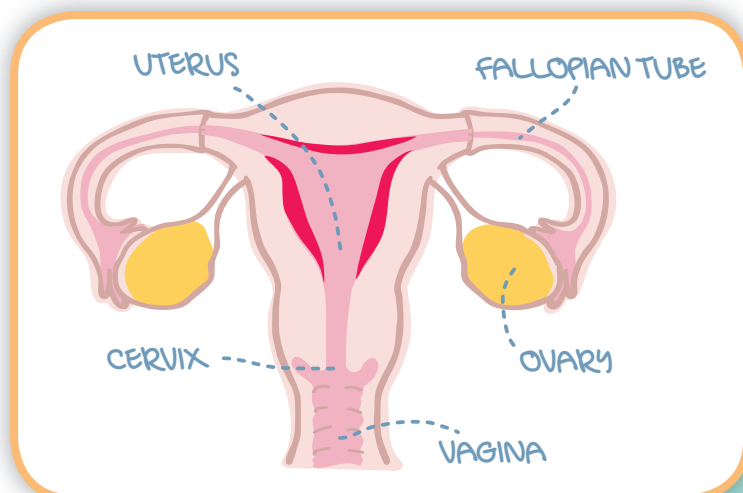
The testicles produce millions of sperm that are stored in a tube-like structure called the **epididymis**. The sperm leave the epididymis via a tube called the **vas deferens**. On the way, it passes two glands known as the **prostate** gland and the **seminal vesicle**. These two glands secrete white fluid called **semen** which helps the sperm in its travels.

As the vas deferens reaches the bladder, its name changes to the **urethra** which is then responsible for carrying the sperm and semen out of the penis. It is also responsible for carrying the urine from its storage place in the **bladder**.

The **penis** is the male organ that is used for urination and sexual intercourse. The tip of the penis is covered by a flap of skin known as the **foreskin**, although this is sometimes removed for health and cultural reasons.

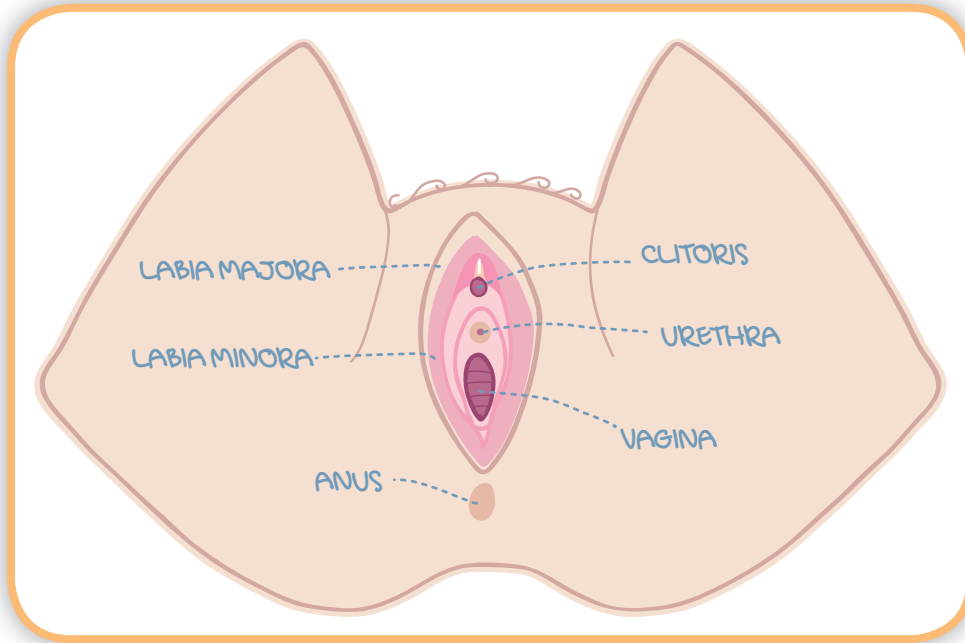
5.6 Female parts of the puzzle

Label the internal parts of the female reproductive system.



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Label the external parts of the female reproductive system.

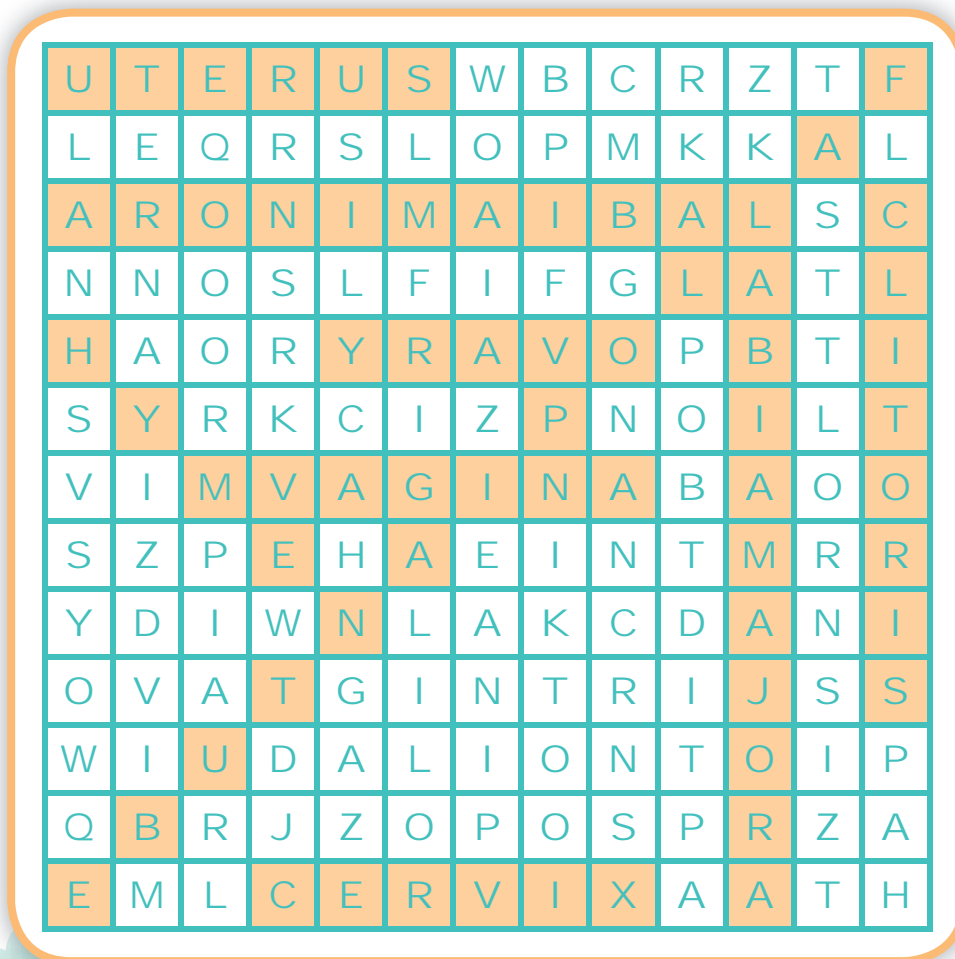


Use your *All Systems Are GO!* CD-ROM 'File 3 – Female reproductive parts' to help you complete the table.

Reproductive system	Definition
cervix	the opening to the uterus
clitoris	a small sensory organ that is present only in the reproductive system of female mammals
fallopian tube	tube that connects the ovary and uterus where fertilisation takes place
hymen	a thin sheet of tissue that partially covers the opening of the vagina
labia majora	larger of two skin flaps that protect the vaginal opening
labia minora	smaller of two skin flaps that protect the vaginal opening

Reproductive system	Definition
ovary	organ that produces, stores, and releases eggs once every month
uterus	place where the baby develops during pregnancy
vagina	a muscular, tubular tract that leads from the female internal reproductive organs to the outside of the body; also a pathway for sexual intercourse, menstrual flow and giving birth

5.7 The reproduction puzzle



5.9 Lockie's emotional roller-coaster – pages 21–40

Create a graph that shows the emotional roller-coaster that Lockie Leonard is travelling along. Choose a suitable adjective that describes how Lockie would be feeling in each situation.

The following adjectives could be used to describe how Lockie would be feeling in each situation:

- 1 Settling into school – relieved, happy
- 2 Vicki walking past – nervous, excited
- 3 Attending church – depressed, bored
- 4 Woodwork class – defiant, cheeky
- 5 Visiting guidance officer – wary
- 6 Birthday – happy, carefree
- 7 Vicki at the beach – excited, happy.

5.10 Changes for boys

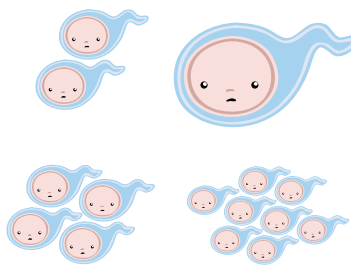
Use a word to describe the different emotions you think that Lockie might be experiencing, and indicate which part of those two pages relates to that emotion.

Emotion	Which part of the story
confusion	unsure of what has happened
embarrassment	about his parents finding out
worried	that he isn't ready 'for this stuff'
excited	enjoyed the experience of thinking about Vicki

5.11 Sex characteristics timeline

Place the various pictures in the correct spot on the timeline. For each picture, write down the secondary sex characteristics that the picture is referring to.

Your pictures could go in a few places, depending on the age category you pick. They should have the following information attached.



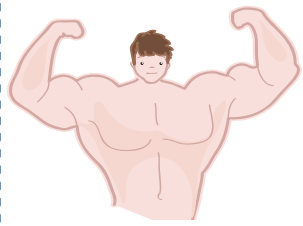
reproductive organs mature

sperm is produced

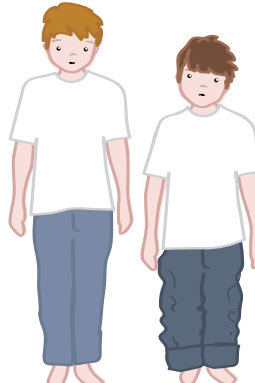


organs become larger

wet dreams occur



muscles develop in neck, shoulder and chest



shoulders broaden and growth occurs




body hair grows



voice breaks and deepens



acne may occur



facial hair grows



5.12 A menstrual time clock

Design an information sheet that explains what menstruation is and how it works.

Your drawing should include the ovaries, fallopian tube, uterus and the vagina. Perhaps use red pipe cleaners to represent the blood in the wall of the uterus.

Include text boxes with arrows to state the important stages of the process.

A menstrual time clock of 28 days would be a useful item to place somewhere on your sheet.

5.14 Lockie's emotional roller-coaster – pages 43–73

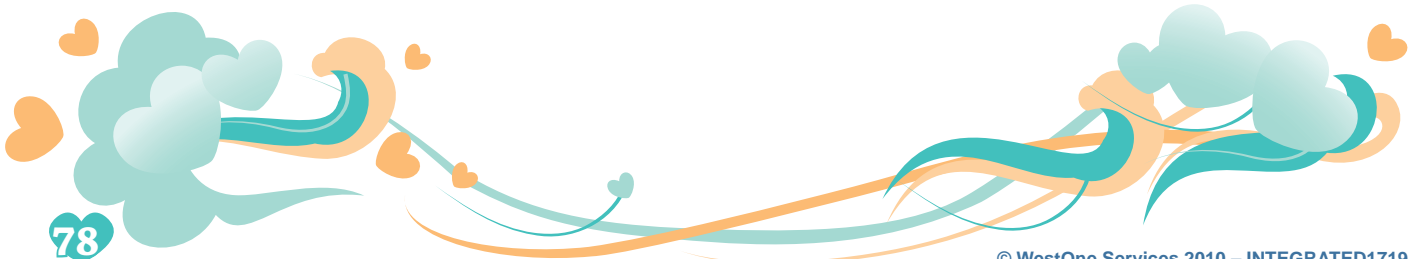
Create a graph that shows the emotional roller-coaster that Lockie Leonard is travelling along. Choose a suitable adjective that describes how Lockie would be feeling in each situation.

The following adjectives could be used to describe how Lockie would be feeling in each situation:

- 1 First kiss – happy, excited
- 2 Popular with other students – proud, happy
- 3 Hurting Vicki's feelings at the fortress – sad, disappointed
- 4 Seeing Vicki smoking – angry, confused, concerned
- 5 Making out on the sofa – happy, excited
- 6 When Vicki's dad walked in – scared, anxious
- 7 Youth group – angry, frustrated.

5.15 Which came first?

Below are some situations that have occurred in the novel that relate to Lockie Leonard as he enters puberty. Write down each heading in order, and record what page you found each one on.

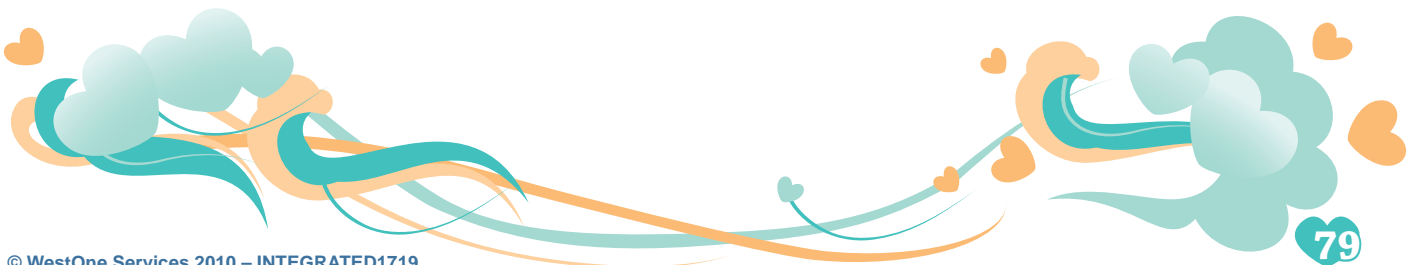


Which came first?	Heading	Page number
1	sex talk	14
2	vegemite encounter	17
3	first wet dream	21
4	falling into hedge	24
5	birthday boy	36
6	first kiss	45
7	teasing	47
8	becoming popular	59
9	making out	66

5.16 Diorama

Choose an image from the novel that you like. Design a diorama to include images as you think Lockie would see them.

Make your image 3-D and be as creative as your access to materials allows you.



5.17 Sociogram

Using Lockie Leonard as the central character, create a sociogram.

Create a sociogram with you as the central character.

Relationships can be positive or negative and are constantly changing, especially during an emotional time like puberty.

5.18 Who am I?

Which character do you think is being described?

The leader of the Year 9 boys who picks on Lockie.

Describe five characters from the novel.

Use words that describe each character in both looks and actions.

5.20 Lockie's emotional roller-coaster – pages 74–88

Create a graph that shows the emotional roller-coaster that Lockie Leonard is travelling along. Choose a suitable adjective that describes how Lockie would be feeling in each situation.

The following adjectives could be used to describe how Lockie would be feeling in each situation:

- 1 Elected as president – confused, resentful
- 2 During the 'passion sessions' – grateful, hesitant, excited
- 3 Not bringing Vicki to see his home – embarrassed
- 4 The day of skiing – angry, embarrassed, disappointed.

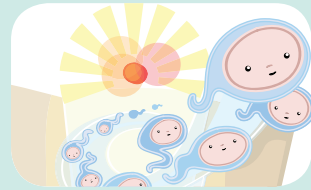
5.21 Baby beginnings

Try and explain the conception process by describing what is happening in each picture.

Your answer can be confirmed by completing the next activity.

Fill in the spaces beside each picture with the correct statements.

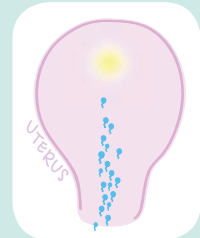
- 1** The penis releases millions of sperm into the vagina.



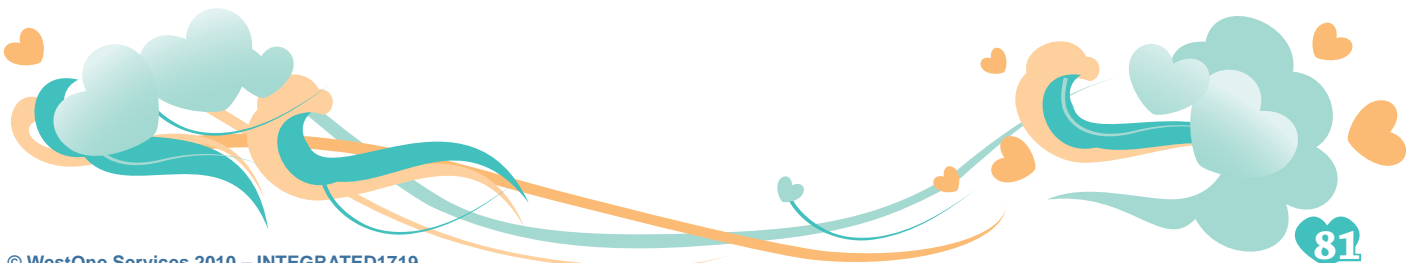
- 1** The ovary usually releases one egg per month.



- 1** Sperm consists of a head, and a tail that helps it swim.
2 Sperm makes its way up through the uterus.



- 1** The egg only survives for a few hours in the fallopian tube.
2 Fertilisation takes place in the fallopian tube.
3 Sperm survive in the fallopian tube for about five days.



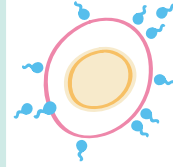
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1 Fertilisation occurs when the sperm and egg unite.

2 Only one sperm unites with an egg.

3 Two eggs being fertilised by two sperm = non identical twins.

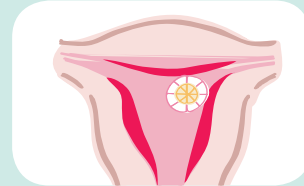
4 One egg fertilised by one sperm and then splits into two = identical twins.



1 The fertilised egg continually divides to become a baby.



1 The fertilised egg attaches to the uterus to begin pregnancy.



5.22 Making a baby

Time to create your foetus!

Pick out the main features at each age and draw them as accurately as possible on your balloon. Take care with the labelling of your final picture so that your photo contains the important information.

5.23 Happy birthday!

Design a page that has a suitable title relating to your birth and includes all the information that you have just found out about your birth.

Try to create an image for the reader about your birth by organising your information in such a way that it paints a picture of your mum's pregnancy and your first few days.

5.24 Spreading the virus message

Explain how you think it might be possible for the baby to contract a bloodborne virus.

Everything that the mother takes into her body during pregnancy is passed on to the foetus. This includes alcohol, cigarette smoke, food AND bloodborne viruses.

Create a poster that warns people of the dangers of HIV, and how to prevent contracting HIV.

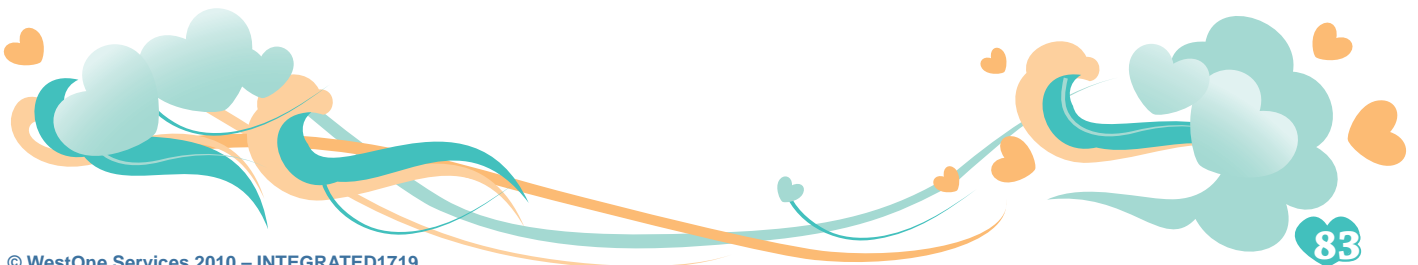
Present your information in a way that will capture the reader's attention.

5.26 Lockie's emotional roller-coaster – pages 89–132

Create a graph that shows the emotional roller-coaster that Lockie Leonard is travelling along. Choose a suitable adjective that describes how Lockie would be feeling in each situation.

The following adjectives could be used to describe how Lockie would be feeling in each situation:

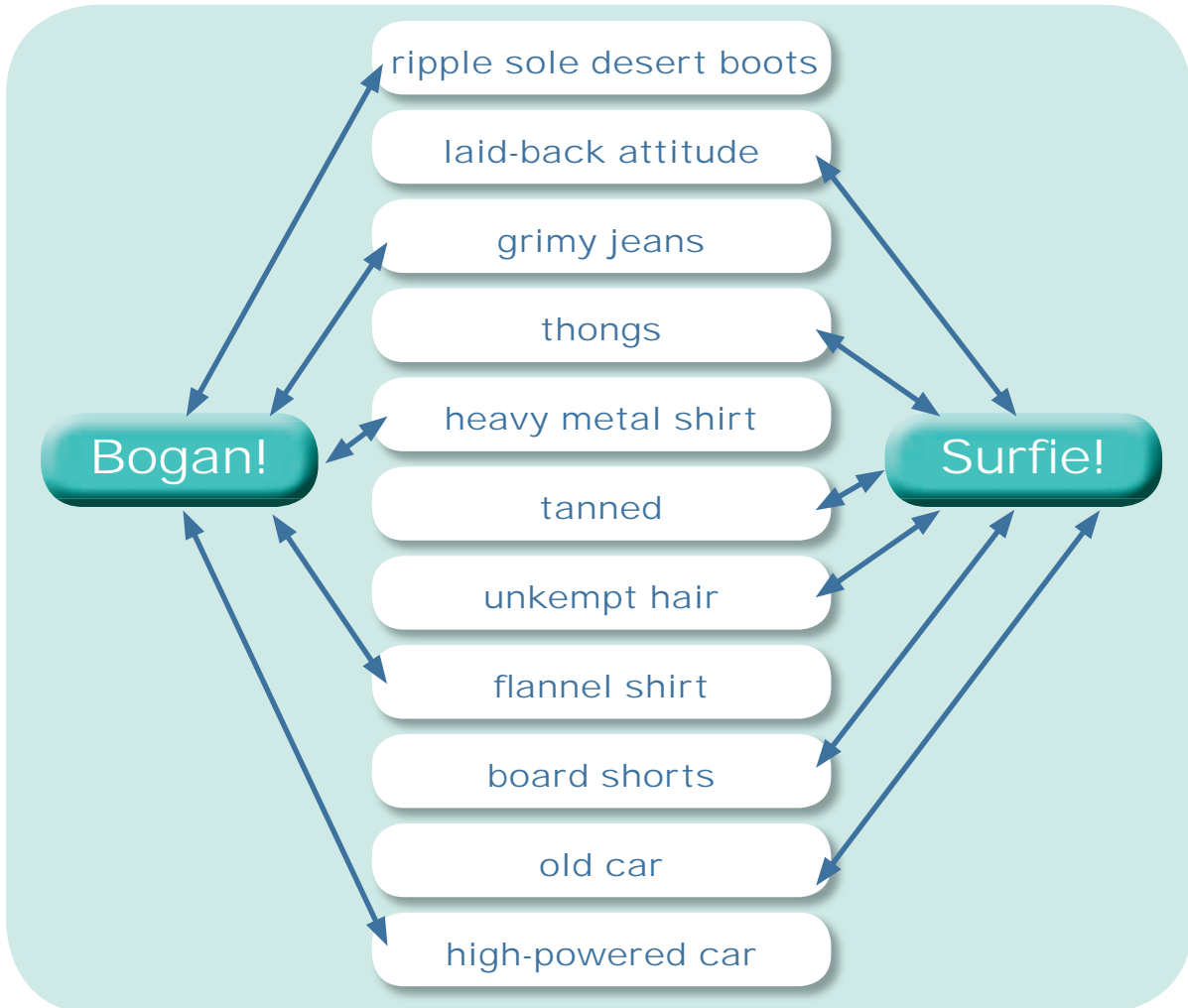
- 1 When Sarge was shot at – scared, worried
- 2 Seeing the bogan with Vicki at the skate rink – jealous, angry
- 3 Seeing the bogan's car at the police station – happy, satisfied
- 4 Surfing at camp – ecstatic
- 5 After the phone call to Vicki – sad, disappointed
- 6 At the end of the book – content, peaceful.



5.27 Stereotypes

Draw an arrow from each of the words below to either 'Bogan' or 'Surfie' to show which description best fits each of these 'types' of people.

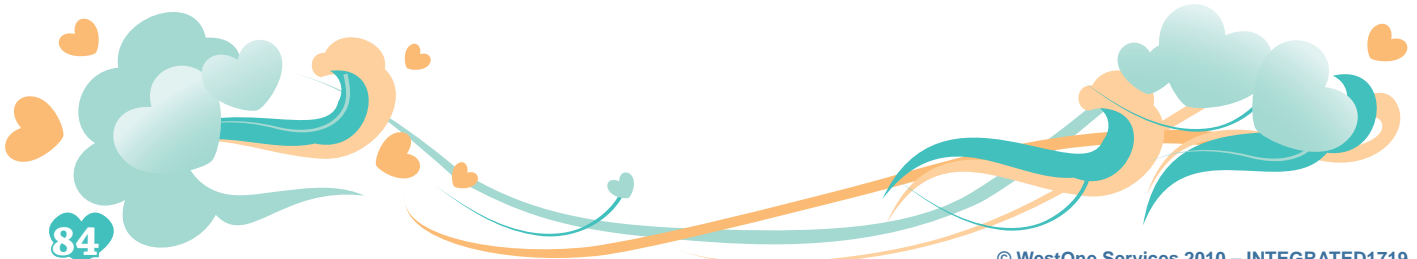
Your answers will vary, but may be similar to the ones below.



5.28 Feelings

Describe how you have felt, or think you might feel, in the following situations.

These situations would affect a person's emotions on most occasions, but would probably be more extreme for a person going through puberty.



For example, having a pimple on the nose is not very nice. You might be embarrassed and self-conscious about it, or perhaps you might understand that everyone will have a pimple at some stage and, therefore, not worry about it so much.

How you deal with the situation is an important part of growing up.

5.29 Making decisions

For the following situations, write down a couple of options that you could consider and the possible consequences of those options.

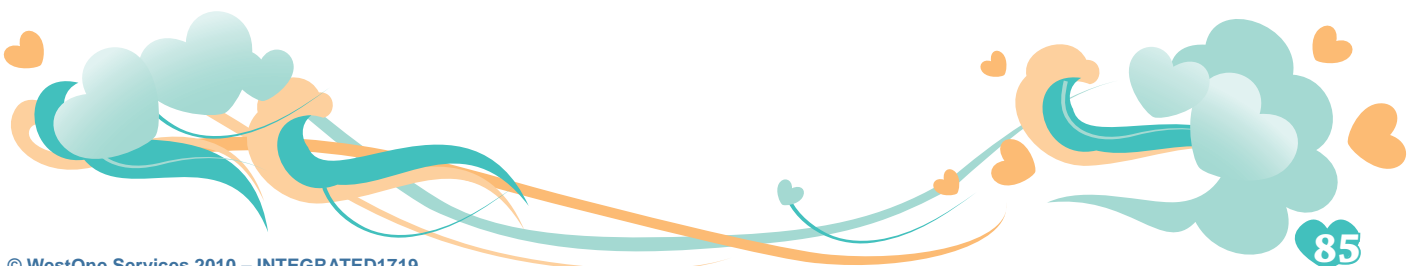
Answers will vary but may be similar to the ones below:

- 1 You get into an argument with your mum because you didn't clean your room.

Option	Consequence
apologise for not cleaning your room and for arguing	improve your relationship with your mum, and saying you were wrong is a positive step
refuse to clean your room	will lead to an unhappy house because of the conflict with your mum

- 2 You felt bad for yelling at a friend for no reason.

Option	Consequence
apologise to your friend	improve your relationship with your friend, and saying you were wrong is a positive step
don't apologise to your friend	you will continue to feel bad and your friendship won't improve



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- 3 You were scared to get up on stage to receive an award in front of a school audience.

Option	Consequence
refuse to get up from your seat	bring unwanted attention to yourself
walk proudly and not show any fear	improve your feelings about this situation so that it will be easier next time

5.30 Setting goals

List three short-term goals that could help Lockie and Vicki achieve their long-term goals.

Answers will vary, but may be similar to the ones below.

Lockie's short-term goals might be:

- train harder at surfing
- get a part-time job so that he can buy a better surfboard
- avoid detention so that he can spend more time surfing.

Vicki's short-term goals might be:

- complete all of her homework
- don't get involved with the wrong crowd
- don't get pregnant.

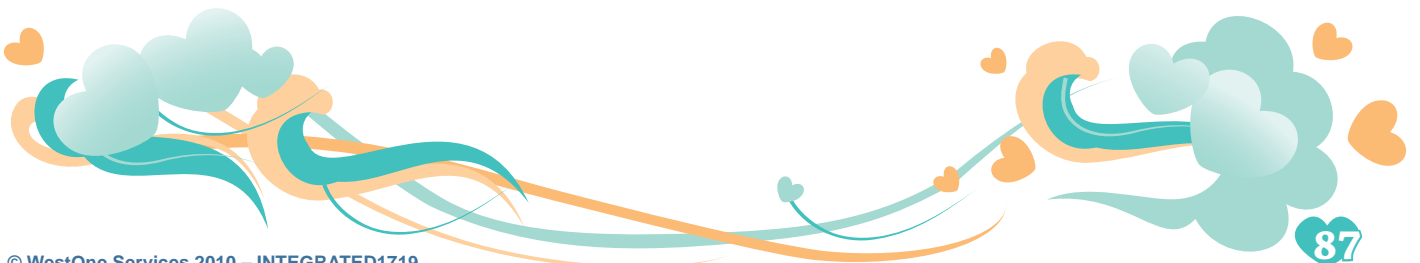
Explain how you think their situation would change if they had a baby.

For example, Lockie might have to get a job to support the baby and not have time to surf. Vicki may not be able to study as much, or even go to school at all.

5.31 Keywords

The meanings of the keywords used in this unit can be found below.

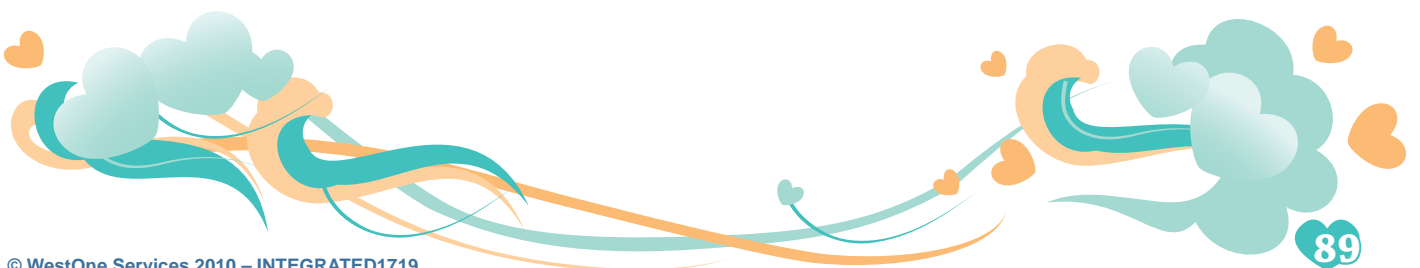
Keyword	Meaning
Acquired Immune Deficiency Syndrome	an illness that is able to affect the body because the body's immune system, which fights illnesses, has been weakened by a virus known as HIV
adjective	a describing word that relates to a noun or pronoun
alternate line poem	a poem that follows one point of view on one line followed by a different point of view on the next line
artery	vessel responsible for carrying oxygen-rich blood away from the heart and into the body
bone marrow	part of the bone that makes blood cells
cancellous bone	layers within the compact bone that contain the bone marrow
capillary	vessel responsible for exchanging water, oxygen and nutrients with the waste products within the body tissue
cinquain	a five line poem based on the number of syllables used in each line
circulatory system	the system responsible for transporting oxygen and nutrients to the cells of the body, and for taking away the waste products
compact bone	the part you can see when you look at a skeleton
conception	name given to the time from when the sperm enters the vagina until the fertilised egg is embedded in the uterus ready for pregnancy to take place



All Systems Are GO!

Keyword	Meaning
coronary	artery that supplies the heart muscle with blood
digestive system	body system that breaks down and handles food
emotions	feelings you have inside
emphysema	a type of lung disease where the alveoli are damaged
energy	results from the breakdown of food to supply the body with fuel to perform everyday activities
haiku	a three line poem based on the number of syllables used in each line
heart	acts as a pump to assist blood flow around the body
Human Immunodeficiency Virus	a virus that is transmitted through contact with infected blood
kilojoule	the unit used to measure the level of energy
lung	organ of the body where gases are exchanged
menstruation	the process of shedding the lining of the uterus to release the unfertilised egg
muscular system	composed of a system of muscles attached to bones that allows movement of the body
noun	a word used to name a person, animal, place, thing or an abstract idea
osteoporosis	when the bones become fragile and brittle because they lose minerals
periosteum	the outer surface of bone
puberty	the physical and emotional changes that occur during adolescence
pulse	indicates how fast or slow the heart is beating

Keyword	Meaning
reproductive system	system responsible for the sexual maturity of the body
respiratory system	system responsible for the process of exchanging gases
secondary sex characteristics	signs that a boy or girl has reached puberty
skeletal system	the bones in the body
stereotype	a word given to describe standard ideas or images
sutures	joints where bones are fused together
syllable	how a word is broken down when you pronounce it
vein	vessel that carries blood back towards the heart



All Systems Are GO!

