

# AMAZING APPLES

*An eight week integrated program for upper primary*



Developed by the Southern Forests SEED Program, 2015



## Acknowledgements

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The SEED Program is based within the Shire of Manjimup and aims to raise the profile of careers in agriculture as a valid career pathway by increasing young people's exposure to the field of agriculture, through learning and enabling opportunities to explore the industry and connect with those living and working in agriculture.

This series of primary and middle school resources allows teachers to use the agricultural industry as a subject area to address cross curricula learning in the classroom. The Southern Forests SEED Program is grateful for the support it has received from the local agriculture industry, linking in with educational programs and hosting excursions to their farms and businesses.

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Photographs in this package are supplied courtesy of Craig Kinder Photography and the Southern Forests Food Council.

Resources contained within this package may be copied and distributed for educational purposes.



# Contents

Welcome	1
How to use this Program	2
Suggested Texts and Websites	3
Additional Resources	4
Apple Fact Sheet Links	5
Australian Curriculum Outcomes	6

## English

Word Work / Theme Words	10
Interesting Facts About Apples - True / False	21
Growing Regions - Interesting Words Chart	25
Apple - Compare and Contrast - Cinquain Writing	27
Pink Lady - Information Location	31
Grower Profile - Interesting Words Chart	33
Successful Apple Breeding - Tree Map	35
Coles 'fresh' apples - Roll a Response - Adverbs	39
Health Benefits of Eating Apples - Personal Reading Response - An Apple A day	43
Apple Juice is sugary - Star Focus	49
Granny Smith - Reading Non Fiction - Dear Diary	53

## Mathematics

Estimating Capacity	59
A Weighty Issue	60
Apple Figures	61
Favourite Apples	62
Perimeter and Area	64
Perimeter and Area (Word Problems)	65
The cost of apples	66

## Projects

Apple Project Number One	68
Apple Project Number Two	69
Apple Project Number Three	70

# Welcome

...to the amazing world of apples! Did you know that there are more than 400 plus varieties of apples around the world? It is one of the most recognisable fruits around the globe and many a staple in children's lunchboxes over the years. The humble apple provides a wealth of educational opportunities for children to learn about through this theme.

This document is a thematic based program, using literature as the springboard to teach children about the many facets of apples; from pollination right through to the benefits of eating them. It is an eight week program (this timeframe allows for flexibility with planning and knowing how schools can be very busy places with interruptions to the term) that integrates learning about apples into reading lessons, spelling lessons and numeracy to make effective use of learning time in your classroom.

All lessons are based on fictional texts, using a variety of text formats. The lessons are clearly linked to the Australian Curriculum to show the outcomes that are being aimed for. The outcomes stated are also cross curricula, so that in a Literacy session, there will be links to other subject areas.

As teachers, we know that time is precious, and we are always looking for ways to utilise our time more effectively to 'cram in' more to our educational days.

The focus of this package is the use of incorporating literacies throughout as many subject areas as possible. It is essential that children display adequate levels of literacy across every area and this is not limited to just the area of English.

I am aware that many schools employ whole school approaches, especially with regards to Mathematics and Literacy, so many of the activities can be complementary, rather than a whole school approach.

This program is aimed to be practical, relevant and user friendly. It also includes extras such as useful web-sites, other texts and supplementary facts for those children who have a passion for knowledge and would like some extension work.

I hope you enjoy Amazing Apples.

**Heidi Temptra**

B.Arts(Pri), B.Edu(RE), M.Edu(SLN), M.Ed(ECE)



## How to use this Program

**Flexibility** is the key to any primary classroom and it is for this reason that the program is aimed to run for eight weeks. This is allowing for the interruptions that can happen during a term that can often eat into a teacher's day. It also allows for any lessons to be 'caught up' if some of the activities have not been finished in the allocated time frame.

I believe that a **springboard** in the program always motivates the children to want to find out more about the topic. An excursion to a local orchard/packing shed is a brilliant way for children to immerse themselves in the topic.

This program is **based on non-fiction texts** that are presented in a variety of formats. One of the aims is to expose the students to the many different ways factual information can be presented, thus allowing them to transfer their comprehension skills set to various modes of information.

The program is **aimed to cover as much information** as possible in the subject areas of English and Maths, to support the completion of the Projects that have been set out. There are three projects in this program. The projects have been classified into "Easy" (number one), "Medium" (number two) and "Challenging" (number three). They were designed with curriculum modification in mind, in that children who enjoy a challenge and are able to transfer their learning quite easily would complete project number three and that children who find learning difficult at times would complete the first project.

The **grouping** of students is at the teacher discretion, as ultimately you know what works best for your students.

The **projects are to run concurrently with the program**, with the aim that children apply the content learnt in other subject matters to their project. This planning allows for maximum outcomes to be achieved, for example reading about the history of the apple is done in an English lesson thus freeing up the History lesson for students to focus on the area of skills. The projects are based on the areas of Bloom's Taxonomy that allows children to utilise their strengths in that area. At the end of the unit is the group presentations, where they can showcase how they have brought all their learning together.

The **Australian Curriculum** page of this document provides all the relevant links for you. You will see the projects bring together many of the outcomes from other subject areas.

# Suggested Texts and Websites

The following list has been compiled to supplement and support the activities contained in this package.

**Please note that just typing "apple" into a search engine will produce copious amounts of links to the computer term apple - think Macintosh, iPad, iPhone etc... You will need to be specific with the apple fruit!**

## Wonderful Websites

These sites were current and running at the time of this package being written.

[www.aussieapples.com.au](http://www.aussieapples.com.au)

<http://apples.smartviewer.com.au>

<http://apal.org.au/consumers/apple-varieties/>

[www.freshforkids.com.au/fruit\\_pages/apple/apple.html](http://www.freshforkids.com.au/fruit_pages/apple/apple.html)

[www.agric.wa.gov.au](http://www.agric.wa.gov.au)

[www.apal.org.au](http://www.apal.org.au)

[www.australiafresh.com.au/products/apples](http://www.australiafresh.com.au/products/apples)

[www.fruitatwork.com.au](http://www.fruitatwork.com.au)



## SUGGESTED TEXTS

### NON FICTION

*Apples and how to grow them* by A Mikolajski

*Apples* by G Stewart-Reed

*All About Apples* by A Gilbert

### FICTION

*Adventure on Apple Orchard Road* by C Collier

*The Apple and the Arrow* by M and C Buff

*The Apple Gatherer* by S Schnur

## Additional Resources

### OTHER PROGRAMS TO LINK WITH:

- Kitchen Garden
- Your Local Community Garden
- Your Local Farmers Market
- From Paddock to Plate

### Excursions

- Visit an apple orchard
- Visit an apple cool store and packing shed
- Visit a wholesale market
- Visit a supermarket

### Incursions

- Have a plant scientist come and talk about plant breeding and genetics
- Have an agronomist talk to class about growing apples
- Have a market agent talk to students about buying and selling apples
- Have a graphic designer talk about designing product labels and packaging
- Have a garden guru talk to class about backyard apple growing
- Have a nutritionist talk to class about health benefits of eating apples

### VIDEO LINKS

Amazing Apples, Newton Orchards, Manjimup WA  
<https://www.youtube.com/watch?v=YTUqQfHaefA>

# Apple Facts Links

## APPLE BREEDING

<https://www.agric.wa.gov.au/pome-fruit/successful-apple-breeding-%E2%80%93-patience-perseverance-and-luck?page=0%2C0>

## APPLE PESTS AND DISEASE

<https://www.agric.wa.gov.au/pome-fruit/apple-looper-pest-apples-and-grapevines>

<https://www.agric.wa.gov.au/pome-fruit/trace-element-treatments-apple-and-pear-trees>

<https://www.agric.wa.gov.au/plant-biosecurity/spider-mite-pests-western-australian-plants>

<https://www.agric.wa.gov.au/pome-fruit/managing-apple-dimpling-bug>

<https://www.agric.wa.gov.au/pome-fruit/managing-apple-scab-western-australia>

## IRRIGATION

<https://www.agric.wa.gov.au/strawberries/measuring-delivery-drip-irrigation-systems>

## STORAGE

<https://www.agric.wa.gov.au/fruit/mixed-storage-fruits-and-vegetables>

<https://www.agric.wa.gov.au/fruit/storage-fresh-fruit-and-vegetables>

## RESOURCES/GEOGRAPHY/CLIMATE CHANGE

<https://www.agric.wa.gov.au/water-management/netting-saves-water-apple-demonstration-site>

<https://www.agric.wa.gov.au/water-management/more-dollars-drop-apple-demonstration>


## APPEARANCE

<https://www.agric.wa.gov.au/fruit/standards-judging-spring-fruits-and-vegetables>



# Australian Curriculum Outcomes

## SUBJECT KEY

English	
Maths	
History	
Economics	
Civics and Citizen	
Geography	
Health and Phys Ed	

LESSON	OUTCOMES	CROSS CURRICULA LINKS	GENERAL CAPABILITIES
<b>ENGLISH</b>			
Word Work	ACELA 1526	ACHHS 118	Literacy Critical and Creative Thinking
Successful Apple Breeding	ACELY 1712 ACELY 1713 ACELA 1522 ACELY 1711	ACHEK 010	Literacy Critical and Creative Thinking ICT
Growing Regions	ACELY 1713 ACELT 1617		Literacy Critical and Creative Thinking
Apple	ACELY 1713 ACELT 1617	ACHES 013	Literacy Critical and Creative Thinking
Pink Lady	ACELY 1713	ACHES 014 ACHES 016	Literacy Critical and Creative Thinking
Grower Profile	ACELY 1713	ACHHK 115 ACHHS 117 ACHHS 118	Literacy Critical and Creative Thinking Intercultural Understanding
Interesting Facts about Apples	ACELY 1713		Literacy Critical and Creative Thinking
Coles 'fresh' apples	ACELY 1713 ACELA 1523	ACHEK 011 ACHES 012	Literacy Critical and Creative Thinking Ethical Understanding
Health Benefits	ACELY 1713 ACELY 1714	ACPPS 058	Literacy Critical and Creative Thinking
Apple Juice as Sugary as Coca Cola	ACELA 1517 ACELY 1713 ACELA 1524 ACELA 1525 ACELA 1518	ACPPS 058	Literacy Critical and Creative Thinking Personal and Social Capability
Granny Smith	ACELY 1713 ACELT 1613 ACELT 1800	ACHHK 115 ACHHK 116 ACHHS 124	Literacy Critical and Creative Thinking Intercultural Understanding Personal and Social Capability

# Australian Curriculum Outcomes

LESSON	OUTCOMES	CROSS CURRICULA LINKS	GENERAL CAPABILITIES
<b>MATHEMATICS</b>			
Estimating Capacity	ACMMG 138		Literacy Numeracy Critical and Creative Thinking
A Weighty Issue	ACMNA 291 ACMNA 100 ACMNA 098	ACELY 1713	Literacy Numeracy Critical and Creative Thinking
Apple Figures	ACMNA 132	ACELY 1713	Literacy Numeracy Critical and Creative Thinking
Favourite Apples	ACMSP 147	ACELY 1713	Literacy Numeracy Critical and Creative Thinking
Perimeter and Area	ACMMG 137	ACELY 1713	Literacy Numeracy Critical and Creative Thinking
Perimeter and Area (#2)	ACMMG 137	ACELY 1713	Literacy Numeracy Critical and Creative Thinking
The Cost of Apple Farm	ACMNA 123	ACELY 1713	Literacy Numeracy Critical and Creative Thinking

# Australian Curriculum Outcomes

LESSON	OUTCOMES	CROSS CURRICULA LINKS	GENERAL CAPABILITIES
<b>PROJECTS</b>			
PROJECT ONE	ACELY 1713 ACELY 1710 ACELA 1517 ACHGS 045 ACHHK 116 ACHHS 120 ACHHS 125 ACHEK 011 ACPPS 058	ACELY 1714 ACELY 1709 ACHGS 042 ACMNA 123 ACHHS 117 ACHHS 124 ACHEK 010 ACHCS 044	Literacy Numeracy Critical and Creative Thinking ICT Personal and Social Capability Ethical Understanding
PROJECT TWO	ACELY 1713 ACELY 1816 ACELY 1714 ACHHK 115 ACHHS 117 ACHHS 121 ACHHS 125 ACHESO12 ACHES 014 ACHCS 043	ACELY 1709 ACELY 1710 ACHGS 045 ACHHK 116 ACHHS 120 ACHHS 124 ACHEK 010 ACHES 013 ACHCS 040 ACPPS 058	Literacy Numeracy Critical and Creative Thinking ICT Personal and Social Capability Ethical Understanding Intercultural Understanding
PROJECT THREE	ACELY 1713 ACELY 1816 ACELY 1714 ACMMG 136 ACHGS040 ACHGS 043 ACHHK 116 ACHEK 009 ACHES 013 ACHCS043	ACELY 1709 ACELY 1710 ACMNA 123 ACMMG137 ACHGS 042 ACHGS045 ACHHS 119 ACHES 012 ACHES016	Literacy Numeracy Critical and Creative Thinking ICT Personal and Social Capability Ethical Understanding Intercultural Understanding

# ENGLISH



## WORD WORK

Use the FLASHCARDS in this pack as the focus of your spelling words for this program. A great way to start each day is with; I say, we say, you say. The teacher holds up the flashcard and says the word, repeat but this time with the students joining in, and then the children say the word on their own.

Everyday use one of the Word Work activities to reinforce the words.

**EXTENSION:** The more able children can be given more words to do than the suggested number. They can also be given some of the more challenging words.

**REMEDICATION:** Limit the number of words they have to work with and choose the words that have common blends and less than two syllables.

- **WORD of the day sheet:** Children complete the sheet following the instructions as written.
- **WORD SCRABBLE** each letter of the alphabet is assigned a numerical value. Using these numbers, work out how much each word is worth.
- **RAINBOW words:** Write the words/letters in different colours five times.
- **DICEY WORDS:** Roll a dice. Whatever number is rolled, complete that activity that goes with that number.
- **PYRAMID words:** Build a pyramid using the letters of the words.
- **ABC order:** write the words in alphabetical order.



F  
FE  
FEE  
FEED

# Word Work

1 Write ten words from the wall in alphabetical order.

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_

6 \_\_\_\_\_

7 \_\_\_\_\_

8 \_\_\_\_\_

9 \_\_\_\_\_

10 \_\_\_\_\_

2 Use two words in a sentence that contain at least two adjectives and one adverb.

a) \_\_\_\_\_

\_\_\_\_\_

b) \_\_\_\_\_

\_\_\_\_\_

3 Word Building. Choose four words from your theme words and find the following;

BASE WORD	PREFIXES ADDED?	SUFFIXES ADDED?	WORD HISTORY

# Word of the Day

Write your word here

---

noun    verb    adjective    adverb

Have you heard this word before?

**Yes / No**

How many syllables?

---

Number of vowels?

---

Number of consonants?

---

Definition

---

---

Put in a sentence

---

---

Smaller words

---

---

---

Word building

# Word Scrabble

A 1	B 3	C 4	D 2	E 1	F 2	G 3	H 2
I 1	J 10	K 10	L 2	M 2	N 2	O 1	P 3
Q 10	R 2	S 1	T 1	U 1	V 4	W 3	X 8
Y 2	Z 10						

Which word is worth the most?

1 Season                      s+e+a+s+o+n                      1+1+1+1+0+2 =                      6 points

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_

6 \_\_\_\_\_

7 \_\_\_\_\_

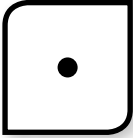
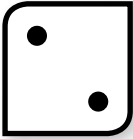
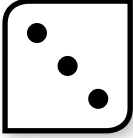
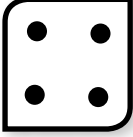
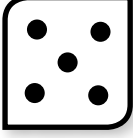
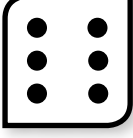
8 \_\_\_\_\_

9 \_\_\_\_\_

10 \_\_\_\_\_



# Dicey Words

	<p>Write the vowels in red and the consonants in green.</p>
	<p>Write your word in fancy writing.</p>
	<p>Write the definition for your word.</p>
	<p>Write your word five times in five different colours.</p>
	<p>Write two rhyming words for your word (can be made up!).</p>
	<p>Write your word in a sentence.</p>

fruit

orchard

healthy

blossom

agriculture

crisp

chemicals

propagation

grafting

juicing

nutrition

harvest

disease

mould

fungus

fertilize

pollination

nutrients

season

sauce

oxidation

budding

pectin

mildew

## 30 Interesting Facts about Apples

- 1 The scientific name for apples is *Malus domestica*.
- 2 The science of apple cultivation is known as Pomology.
- 3 Apples are said to have originated from a region between the Caspian Sea and the Black Sea.
- 4 Apples come from the Rose family, Rosacea, that's why they have a rosy aroma.
- 5 Horses, monkeys, chimpanzees, bears and rabbits are some animals which eat apples.
- 6 If you threw an apple in water, it wouldn't sink - apples float in water. This is because 25% of their volume consists of air.
- 7 Quercetin, an anti-oxidant, is found in the skin.
- 8 New York city is nicknamed "The Big Apple".
- 9 Apple trees have a life of over 100 years.
- 10 A medium sized apple contains 80 calories.
- 11 A medium sized apple contains approximately 4 grams of fibre.
- 12 Apple trees can be affected by mildew, which leads to a grey powdery coating on leaves.
- 13 The soluble fibre contained in apples is called pectin and it can help to lower cholesterol levels.
- 14 Apples are cholesterol free, sodium free and fat free.
- 15 Apple trees only bear fruit after they reach five years of age.
- 16 Humans have been eating apples since approximately 6500 BC.

Continued over.



## 30 Interesting Facts about Apples

- 17 The average apple has ten seeds.
- 18 Isaac Newton is said to have discovered the "Law of Gravity" when an apple fell on his head.
- 19 Apple cider vinegar is derived from the fermentation of apples and is a brownish yellow colour.
- 20 Being able to successfully shoot an apple off a child's head was a feat of marksmanship in bow and arrow.
- 21 Apples can be grown by two methods; budding and grafting.
- 22 Freshly pressed apple juice immediately turns brown upon contact with air because of oxidation.
- 23 In literature, apples are used to symbolize a wide variety of meanings including temptation, immortality and reincarnation.
- 24 Apples ripen five to six times slower when kept in the refrigerator than when left at room temperature.
- 25 The Apple Macintosh was named after a certain type of apple, the Macintosh. This apple is the national apple of Canada.
- 26 Apples are known as brain food, as they contain high levels of boron, which stimulates electrical activity of the brain and increases mental alertness.
- 27 The flowers of an apple tree are called apple blossoms.
- 28 Honey bees are the most important pollinators of apple blossoms.
- 29 Apples come in a variety of colours; from lime green to golden yellow to burgundy and chocolate brown.
- 30 Some of the pests that affect apple trees are aphids.

**True/False****INTERESTING FACTS ABOUT APPLES**

Read the following statements. Circle if the statement is true or false.

- 1 The average apple has twelve seeds. True / False
- 2 Apples will ripen quicker if left out of the fridge. True / False
- 3 Oxidation causes apple juice to turn yellow. True / False
- 4 Aphids and mildew are some of the problems that can affect apple trees. True / False
- 5 The Macintosh is a type of apple from America. True / False
- 6 Apples are related to roses. True / False
- 7 Apple trees only begin to bear fruit after they have turned 100 years old. True / False
- 8 Honey bees are essential for pollination. True / False
- 9 The skin of the apple has no nutritional value. True / False
- 10 Most of an apple is air. True / False
- 11 Apple cultivation is known as Quercetin. True / False
- 12 Apples are free of sodium, fat and vitamins. True / False
- 13 Fermentation is an important part of developing apple cider. True / False
- 14 Apples are one of the oldest fruits known to man. True / False
- 15 Isaac Newton would not have discovered the "Law of Gravity" if the apple did not fall on his head. True / False

## INTERESTING FACTS ABOUT APPLES

**ANSWER SHEET.** The correct answers are marked as **red**. Under the statement is the correct answer, the brackets denote which point it relates to in the text.

- 1 The average apple has twelve seeds. True / False  
It has ten (17)
- 2 Apples will ripen quicker if left out of the fridge. True / False  
The fridge slows down the ripening process (24)
- 3 Oxidation causes apple juice to turn yellow. True / False  
It causes it turn brown. (22)
- 4 Aphids and mildew are some of the problems that can affect apple trees. True / False  
(12 and 30)
- 5 The Macintosh is a type of apple from America. True / False  
It is a type of apple from Canada (25)
- 6 Apples are related to roses. (4) True / False
- 7 Apple trees only begin to bear fruit after they have turned 100 years old. True / False  
They bear fruit from five years of age (15)
- 8 Honey bees are essential for pollination. (28) True / False
- 9 The skin of the apple has no nutritional value. True / False  
The skin contains anti-oxidants (7)
- 10 Most of an apple is air. Only 25% of the apple is air (6) True / False
- 11 Apple cultivation is known as Quercetin. True / False  
It is known as Pomology (2)
- 12 Apples are free of sodium, fat and cholesterol. (14) True / False
- 13 Fermentation is an important part of developing apple cider. (19) True / False
- 14 Apples are one of the oldest fruits known to man. (16) True / False
- 15 Isaac Newton would not have discovered the Law of Gravity if the apple did not fall on his head. True / False  
Statement 18 states "is said to have discovered", this means it is not a definite finding and he may have discovered this Law through other means. Encourage your students to debate this point with you!

## Growing Regions - Western Australia

There has long been a sense of pride associated with our land and working that land to provide fresh produce for our State and the rest of our country. Apple production is one of the many agricultural industries that thrive on Western Australian soil.

Regions, such as the South West, and the small towns within were built around horticulture and the region's ability to produce superior fresh produce through the cooler night temperatures and warm summer days.

Many of the orchardists still operating within WA are fifth or sixth generation with each generation inheriting the farm from their elder relatives after retirement.

Horticulture in Western Australia is celebrated and with the recent creation of a Producer Committee, Fruit West, there are hopes that greater unity will emerge amongst the Pome producers of WA, taking the industry further forward.

Western Australia is known for producing delicious 'Cripps Pink' apples, the perfect addition to light summer meals.

### MANJIMUP / DONNYBROOK

This region is located approximately 220 kilometres south of Perth. The area was settled somewhere around 1842 by Irish settlers but it wasn't until 1900 that the first Granny Smith apple tree was planted.

Now this region is the largest apple producing area in Western Australia with 1,015 hectares of apple production in the Manjimup and Donnybrook region alone.

The 'Cripps Pink;' (sold as Pink Lady™) apple originated from this region and holds a special place in many of the grower's hearts, an apple to call their own. Some growers believe the cooler night temperatures in the Southern regions enable a brighter red shade for their fruit, making their apples truly appetising to the consumer.

During the season the area comes alive with stunning picturesque vistas created by the apple tree blossoms and festivals held to honour the humble apple and those who take pride in growing it.

### PERTH HILLS

This region is located, on average, only a short 30-minute drive from the suburbs of Perth and provides a great scenic day out for the metropolitan population.

Thanks to warmer temperatures enjoyed by the northern region Perth Hills are generally able to extend their season by several weeks outside that of the South West.

Whilst the area of production in this region is small (151.8 hectares) in comparison to the Donnybrook / Manjimup region, the growers are no less passionate. The Perth Hills are known for their artistic residents, many making gourmet culinary products from their produce as a side avenue of sale.

There has been a slight shift within the Perth Hills region towards biodynamic production, with some of the largest biodynamic orchards in the state residing within this area. Whether this trend continues to grow remains to be seen.

Source: [www.aussieapples.com.au/growing-regions/western-australia.aspx](http://www.aussieapples.com.au/growing-regions/western-australia.aspx)

# Interesting Words Chart

Read the text *Growing Regions - Western Australia*. As you read it, highlight any words you are not sure what they mean. Once you have these words, write them in your chart. Try to work out what the word means by the words/sentences around it. Once you have had a guess, look up the word in the dictionary for its actual definition. Write it in the column.

WORD	WHAT I THINK IT MEANS	WHAT IT ACTUALLY MEANS
Eg. Situated	found	located

# Apple

For this activity you will need to type in the following address;  
**[http://www.freshforkids.com.au/fruit\\_pages/apple/apple.html](http://www.freshforkids.com.au/fruit_pages/apple/apple.html)**

This website has all the information you need to complete the following activity.

- The website lists nine different types as apples as being the most popular in Australia. Your task is to read the information provided under each apple and complete the Compare and Contrast sheet



Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Compare and Contrast

NAME	APPEARANCE	AVAILABILITY	TASTE

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Compare and Contrast

NAME	APPEARANCE	AVAILABILITY	TASTE
Red Delicious			
	Round, conical shape with a rich green skin		
			Distinct, sweet flavour
Johnathon			
		May, June, July	
		May, June, July, August	
Fuji			
	Medium, round shaped apple. Skin colour can vary.		
Golden Delicious			



## Cinquain

### A CINQUAIN POEM IS A FIVE LINE POEM.

**Line 1:** a one word title.

**Line 2:** a two word phrase that describes your title.

**Line 3:** a three word phrase that describes an action relating to your title.

**Line 4:** a four word phrase that describes a feeling relating to your topic.

**Line 5:** one word that refers back to your title.

Apple  
red, fresh  
biting, chewing, drooling  
Makes me feel healthy  
Yummy!

## BACKGROUND

The Pink Lady® trade mark is one of the great success stories of the fruit industry - now used under licence across four continents on a range of food products.

The Pink Lady® trade mark was originally established for use on apples of the Cripps Pink variety that met specified quality standards. This created a mechanism for growers world wide to sell premium quality apples from the variety Cripps Pink at a premium price.

The Cripps Pink apple variety was developed by plant breeder John Cripps at Manjimup in Western Australia as part of a breeding program administered by the Department of Agriculture Western Australia.

In countries where the trade mark is registered, apples sold under the Pink Lady® brand must meet rigorous and specific standards. The Pink Lady® trade mark can only be used under licence. Licence holders pay royalties, which cover management of the trade mark - including auditing of fruit quality, branding, brand promotion and protecting the trade mark against illegal use. In a number of overseas apple producing countries the Cripps Pink variety is protected under plant breeder's rights legislation.



## CRIPPS PINK - THE VARIETY

- Bred by John Cripps at the Department of Agriculture & Food Western Australia (DAFWA)
- Cross between Lady Williams and Golden Delicious
- Bud wood protected from unauthorized propagation by Plant Breeder's Rights (PBR)
- Enables owner to collect royalties
- Development of a brand strategy and London launch by dedicated team from DAFWA
- Premium quality fruit protected by trade mark originally registered by DAFWA
- Scoping of major international apple markets

## TRADE MARK DEVELOPMENT

- Minimum international quality standards delivering consistent quality
- Branding requirements managed through global licensing network
- Promotion royalties invested in extensive campaigns in key markets

Source: <http://www.pinkladyapples.com/about/about.html>

## Information Location

**Topic**

**Main idea**

**Facts**

**New words**

**Most interesting thing I learned**

**Questions I still have**

## Grower Profiles - Harvey Giblett

Newton Brothers Orchards is situated in Manjimup, in the heart of Western Australia's beautiful Southern Forests region. A family owned and operated business for over 80 years, Newton Brothers Orchards has grown from humble beginnings to become one of the most progressive and respected pome and stone fruit producers Australia-wide.

Combined, the four Manjimup properties comprise one of the largest orchard and pack house facilities in WA, providing employment for 35 permanent and up to 70 casual or seasonal staff.



Brothers George and Harold Newton were just 16 and 15 years old when they left their family behind in England and set out to make a new life in Australia. Their 1927 crossing cost ten pounds each, sponsored by the Young Australian League on the condition the pair worked for two years on allotted farms in the Margaret River area.

In 1929, the intrepid Newton boys travelled to Manjimup and bought 100 acres for 400 pounds, building their first house on the property from bits of corrugated iron, hessian sacks and boards hand-hewn from the native karri trees. Through the hard and lean years of the depression and war the brothers held onto their land, cleared the timber, planted vegetables and then fruit crops, purchased more land and slowly developed their trade.

By the 1950s, Newton Brothers Orchards was beginning to develop its present-day reputation for premium quality fruit, innovative growing methods and cool storage for outside growers. While George's six children - Carole, Valmai, Rosalie, Lynette, Maureen and Barry - and 12 grandchildren all worked in the orchards or pack house at some stage, for several years the business has been owned and run solely by George's son-in-law, Harvey Giblett.

Harvey Giblett works full time as NBO's Managing Director. The past two years have seen the third generation begin working alongside him. His eldest daughter Nicole lives on farm and assists a Board of Management member. Nicole's partner Paul Goode is both Finance Officer and Organic Orchard Manager; his son Michael Giblett is now assisting in the capacity of Off-Farm Investment Manager, and his youngest daughter, Lucinda Giblett, is HR and Communications Manager.

## Interesting Words Chart

Read the text. As you read it, highlight any words you are not sure what they mean. Once you have these words, write them in your chart. Try to work out what the word means by the words/sentences around it. Once you have had a guess, look up the word in the dictionary for its actual definition. Write it in the column.

WORD	WHAT I THINK IT MEANS	WHAT IT ACTUALLY MEANS
Eg. Situated	found	located

## Successful Apple Breeding - Patience, perseverance and luck

The Australian National Apple Breeding Program (ANABP) is based in Western Australia at the Department of Agriculture and Food. It aims to create apple cultivars which maximize the benefit to the Australian apple industry.

Quality and novelty are the priority, and new cultivars need good eating qualities, long storage life and must be suited to Australian environments.

The program has created several excellent apple varieties including the world famous Cripps Pink (Pink Lady™) and has just released ANABP 01, an attractive dark burgundy apple unlike any other on the market.



### INTRODUCTION

Apple breeding in Western Australia began at Stoneville in the Perth Hills in 1972 and relocated to Manjimup in the South West during the 1990s.

Having a local breeding program is important for the Western Australian apple industry, even though this is small by world standards.

We have a very specific climate with long hot dry summers and mild winters. This means that introduced varieties often don't perform the same here as in their country of origin.

For example, Red Delicious won't develop the distinctive 'crown' they are famous for in cooler climates, and Golden Delicious suffers from higher levels of sunburn. We need varieties with lower chilling requirements that colour well under mild night temperatures.

It takes about 20 years to produce and fully test a new variety before release. Thousands of crosses need to be made to find ones that are sufficiently superior to existing varieties to encourage growers to plant them, and then for consumers to pay good money for them.

In successful apple breeding, scientific knowledge and technique are not everything. Patience, perseverance and luck are also important.

## Successful Apple Breeding - Patience, perseverance and luck

### BREEDING PROCESS

We use conventional breeding methods involving hand and spray pollination. New hybrids are grown from seed in a glasshouse for five to six months before being planted out in high density plantings as small seedlings.

The best selections, usually only about one in 400, progress to the next stage. They are grafted onto both moderate and low vigor rootstocks and trained to a tall spindle system to bring them into production faster.

During this time, ongoing evaluation enables individual selections to progress to a third stage or to be culled if they lack traits superior to existing varieties. This process includes field and laboratory measurements of a large range of important characteristics such as fruit set, yield, sugar and acid content, flesh pressures and keeping ability. Sensory evaluation, a system of rating appearance, taste and texture, is also undertaken by experienced staff within the department.

Trees are grown on properties in the Perth Hills and Donnybrook as well as at Manjimup, plus a number of interstate sites through the Australian Pome Fruit Improvement Program (APFIP). During this stage further tastings with growers and consumers are carried out.

### NEW VARIETIES

The breeding program has already produced a number of successful varieties.

Cripps Pink is now one of the most popular varieties in the world. Premium quality apples of the variety are marketed under the internationally renowned trademarked brand name Pink Lady™.

Cripps Pink and its sister variety Cripps Red (marketed as Sundowner™ in most places but Joya™ in Europe) were bred in the 1970s by John Cripps from the then Department of Agriculture. John is now retired.

Both of these varieties and Western Dawn (marketed as Enchanted™) came from a cross between the traditional varieties, Lady Williams and Golden Delicious.

A promising dark burgundy variety ANABP 01 has just recently been released to industry. As well as fruit quality and field performance, it has been selected for its unique dark burgundy colour which makes it stand out from other apples on retail shelves.

# Successful Apple Breeding - Patience, perseverance and luck

## VALUE TO CONSUMERS

We aim to create apples that will be suitable for both domestic and export markets to increase our growers' competitive capacity. Producing varieties that meet consumer demands is also one of the criteria for selecting new varieties.

Growers want their fruit to meet consumer expectations, but in order to replace existing trees, they also need varieties that store and handle well, have consistent high yields, are easy to prune, train and manage, and have good pest and disease resistance. Without such advantages, it is not economically viable to make the change.

Consumers have limited knowledge about production factors and tend not to be concerned about them. Most consumers are looking for fruit of a particular size with good looks including colour and shape. They must also have a crisp and crunchy texture, balanced sugar and acid, and good keeping quality at home.

For a new variety to be successful it must meet both grower and consumer requirements. It is also important to stand out from existing varieties to help identification and marketing.

## FUTURE PLANS

Today, a new team is busy with the long process of crossing and evaluating tens of thousands of new seedlings and hundreds of advanced selections. The team is also working towards increasing the efficiency of the process by using visual characteristics and molecular markers to cull undesirable seedlings in the hothouse. It is also looking for new and novel attributes and working on understanding the health benefits of apples with the view to breeding varieties that offer these.

When we do find a promising apple, that needle in a haystack, support and enthusiasm from Australian growers will be vital.

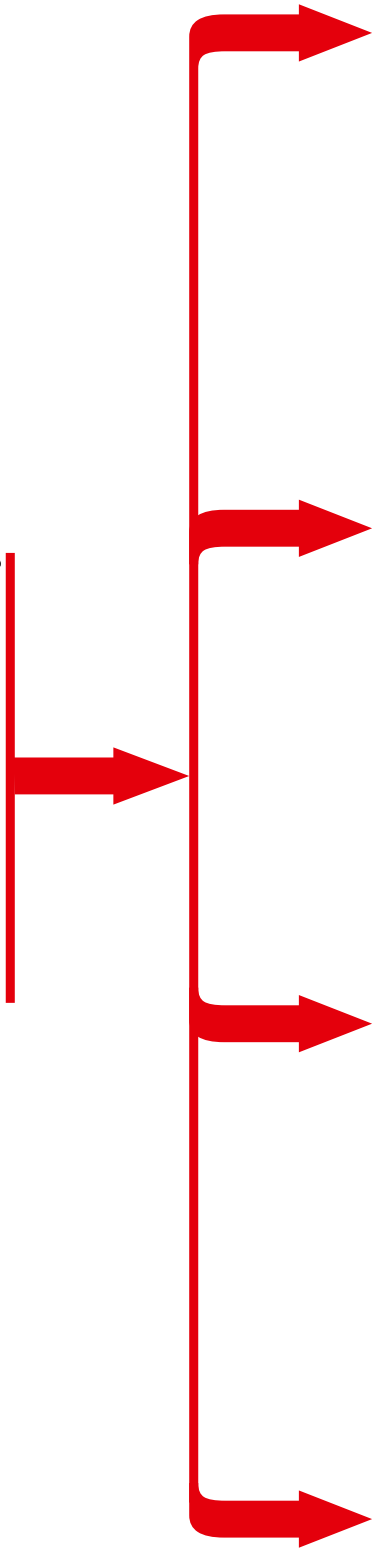
For a new apple to be successful in the marketplace, quality is critical, but critical mass and production of sufficient quantity are important too



Name: \_\_\_\_\_ Date: \_\_\_\_\_

# Tree Map

## Successful Apple Breeding



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## Coles 'fresh' apples were over three months old

By WENLEI MA

From: news.com.au

November 6, 2014 2:58PM



Source:  
Getty Images.

### FRESH APPLES. OR ARE THEY?

#### **COLES is in trouble for claiming its apples are fresh when they were picked in April.**

The supermarket giant ran a series of TV ads in Tasmania at the end of August in which brand ambassador Curtis Stone said: "feed your family better, fresher, with spring fruit and veg from Coles." The ad then cut to Tasmanian Pink Lady apples on special that week.

But the problem was that Tasmanian Pink Lady apples are only in season in April. One viewer noted this disparity and complained to the Advertising Standards Board.

The complainant wrote: "This is wrong and not possible. I live in Tassie and my apple tree is dormant. These apples would have been in storage for months. They are not fresh."

Coles' response to the board was that the apples were in cold storage (not frozen) and retained the original qualities throughout the process. Therefore, it was still considered 'fresh'.

Specifically, Coles' defence was: "Coles considers apples can remain fresh, even if placed in cold storage. 'Freshness' is determined with regard to the quality of the produce, not whether it has been stored or not."

Source: [www.news.com.au/finance/business/coles-fresh-apples-were-over-three-months-old](http://www.news.com.au/finance/business/coles-fresh-apples-were-over-three-months-old)

Continued over.

## Coles 'fresh' apples were over three months old

### COLES: 'FRESH' DOESN'T REFER TO HOW LONG IT WAS STORED.

Coles would've gotten away with it too, like Woolies did two years ago, with the majority of the Ad Standards Board accepting that most Australians understand apples can be kept in cold storage for months. But what got them, this time, was the use of the word 'spring' in the ad. Otherwise, Coles would've been free to claim fresh all they like, even if the apples had been picked in April.

The Board wrote in its decision: "The Board noted that in the current advertisement there is a reference to 'Spring' fruit and considered that these additional references to spring change the context of the word 'fresh' to imply that the advertised apples are spring fruit and have been freshly picked during the spring season ready for immediate sale.

"The Board considered that the likely interpretation of the advertisement by the average consumer would be that the Tasmanian apples being promoted as fresh this Spring would have been freshly picked in recent weeks and not over three months ago."

While Coles did not concede that it was in the wrong, it told the Ad Standards Board that the ad will not run again.

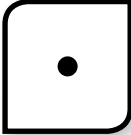
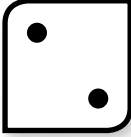

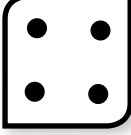
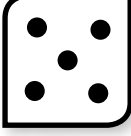

Earlier this year, Coles ran foul of the ACCC for claiming its bread was 'fresh baked' in store when it had been partially baked overseas.



Source:  
News Limited

# Roll a Response

Roll the dice. Whatever number you roll, find that number below and complete the activity that is written next to it.

	<p>What is the main idea?</p>
	<p>What is the purpose of this article?</p>
	<p>Write a short summary (5 lines) of this article.</p>
	<p>Why is this topic important?</p>
	<p>List two aspects you found interesting about this article.</p>
	<p>How does this information influence you as a consumer?</p>

## Apples and Adverbs

An ADVERB is a word that describes a verb. Remember a verb is a doing or action word so any word that describes how that is done is an ADVERB.

Using a copy of the text; "Coles 'fresh' apples were over three months old", highlight all the verbs with a blue highlighter (this will help you work out where the adverbs are). Now, highlight all the adverbs near the verbs in pink.

Using the list below, see if there are any adverbs you can SUBSTITUTE from the list with those in the article. The challenge is to keep the meaning THE SAME! Be careful not to choose an adverb that will alter the meaning of the sentence.

accidentally	angrily	anxiously	awkwardly
beautifully	blindly	bravely	briskly
calmly	carelessly	cheerfully	commonly
dearly	deceivingly	deliberately	dimly
energetically	especially	excitedly	extremely
faithfully	fiercely	fortunately	frightfully
generously	gracefully	gratefully	greedily
happily	honestly	helplessly	hastily
immediately	innocently	instantly	irritably
lazily	loosely	lovingly	loudly
madly	majestically	mockingly	mysteriously
nearly	nosily	offensively	officially
politely	powerfully	quaintly	questionably
rapidly	rarely	readily	rudely
sadly	selfishly	sharply	sheepishly
tensely	thankfully	thoroughly	triumphantly
ultimately	unexpectedly	urgently	vaguely
weakly	worriedly	wisely	wrongly
yearly	yesterday	yieldingly	zestfully

# Health Benefits of Eating Apples

This article has had sections omitted for the aim of this reading activity.

Many of us forget that sometimes, the simplest answers are the best. Better health could be as easy as reaching for the fruit bowl for some apples next time you need a snack



## WHAT MAKES APPLES SO GREAT?

In 2004, USDA scientists investigated over 100 foods to measure their antioxidant concentration per serving size. **Two apples - Red Delicious and Granny Smith - ranked 12th and 13th respectively.** Antioxidants are disease-fighting compounds. Scientists believe these compounds help prevent and repair oxidation damage that happens during normal cell activity. Apples are also full of a fibre called pectin - a medium-sized apple contains about 4 grams of fibre. Pectin is classed as a soluble, fermentable and viscous fibre, a combination that gives it a huge list of health benefits.

## GET WHITER, HEALTHIER TEETH

An apple won't replace your toothbrush, **but biting and chewing an apple stimulates the production of saliva** in your mouth, reducing tooth decay by lowering the levels of bacteria.

## AVOID ALZHEIMER'S

A new study performed on mice shows that **drinking apple juice could keep Alzheimer's away and fight the effects of aging on the brain.** Mice in the study that were fed an apple-enhanced diet showed higher levels of the neurotransmitter acetylcholine and did better in maze tests than those on a regular diet.

## PROTECT AGAINST PARKINSON'S

Research has shown that **people who eat fruits and other high-fibre foods gain a certain amount of protection against Parkinson's**, a disease characterized by a breakdown of the brain's dopamine-producing nerve cells. Scientists have linked this to the free radical-fighting power of the antioxidants contained therein.

# Health Benefits of Eating Apples

## CURB ALL SORTS OF CANCERS

Scientists from the American Association for Cancer Research, among others, agree that **the consumption of flavonol-rich apples could help reduce your risk of developing pancreatic cancer by up to 23 per cent.** Researchers at Cornell University have identified several compounds - triterpenoids - in apple peel that have potent anti-growth activities against cancer cells in the liver, colon and breast. Their earlier research found that extracts from whole apples can reduce the number and size of mammary tumours in rats. Meanwhile, the National Cancer Institute in the U.S. has recommended a high fibre intake to reduce the risk of colorectal cancer.

## DECREASE YOUR RISK OF DIABETES

**Women who eat at least one apple a day are 28 percent less likely to develop type 2 diabetes** than those who don't eat apples. Apples are loaded with soluble fibre, the key to blunting blood sugar swings.

## REDUCE CHOLESTEROL

The soluble fibre found in apples binds with fats in the intestine, which translates into **lower cholesterol levels** and a healthier you.

## GET A HEALTHIER HEART

**An extensive body of research has linked high soluble fibre intake with a slower buildup of cholesterol-rich plaque in your arteries.** The phenolic compound found in apple skins also prevents the cholesterol that gets into your system from solidifying on your artery walls. When plaque builds inside your arteries, it reduces blood flow to your heart, leading to coronary artery disease.

## PREVENT GALLSTONES

Gallstones form when there's too much cholesterol in your bile for it to remain as a liquid, so it solidifies. They are particularly prevalent in the obese. **To prevent gallstones, doctors recommend a diet high in fibre** to help you control your weight and cholesterol levels.

# Health Benefits of Eating Apples

## NEUTRALIZE IRRITABLE BOWEL SYNDROME

Irritable bowel syndrome is characterized by constipation, diarrhoea, and abdominal pain and bloating. To control these symptoms doctors recommend staying away from dairy and fatty foods while including a **high intake of fibre** in your diet.

## CONTROL YOUR WEIGHT

Many health problems are associated with being overweight, among them heart disease, stroke, high blood pressure, type 2 diabetes and sleep apnea. To manage your weight and improve your overall health, doctors recommend a diet rich in fibre. **Foods high in fibre will fill you up** without costing you too many calories.

## DETOXIFY YOUR LIVER

We're constantly consuming toxins, whether it is from drinks or food, and your liver is responsible for clearing these toxins out of your body. Many doctors are skeptical of fad detox diets, saying they have the potential to do more harm than good. Luckily, one of the best - and easiest - **things you can eat to help detoxify your liver is fruits - like apples.**

## BOOST YOUR IMMUNE SYSTEM

Red apples contain an antioxidant called quercetin. Recent studies have found that **quercetin can help boost and fortify your immune system**, especially when you're stressed out.

## PREVENT CATARACTS

Though past studies have been divided on the issue, recent long-term studies suggest that people who have a diet rich in fruits that contain antioxidants - like apples - are **10 to 15 per cent less likely to develop cataracts.**



# Personal Reading Response

1 What did you learn while reading?

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2 What was the main idea of what you read? What were the supporting details that told you more about the main idea?

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3 How and where could you find out more information about the topic?

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4 What do you remember most about the selection you read?

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5 Find an interesting word in this selection. What was it? Use a dictionary to find its meaning and write a sentence of your own using that word.

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## An Apple a Day...

You have been commissioned by the local Health Department to create an advertisement to encourage people to eat more apples. The Health Department thinks that if people were aware of the health benefits of apples then consumers will eat more.

Read the text "Health Benefits of Eating Apples". The information contained in that article will provide sufficient information for the ad, however, you are able to research more if you need to. Have a look at least three other ads on line to view how others have promoted the consumption of apples.

The advertisement is to be on an A4 poster size. You must use the plan over the page to start your brainstorm. Remember the main ways that you can persuade someone to eat more apples; **use a slogan**, **use a testimonial**, **appeal to their emotions** or **use an expert opinion**.

Look at some apple advertisements on the internet for some ideas.

**Please note that just typing "apple" into a search engine will produce copious amounts of links to the computer term apple - think Macintosh, iPad, iPhone etc... You will need to be specific with the apple fruit!**

# Plan your Advertisement

Who is your target audience?  
Which age group?

What will make your advertisement stand out or make people take notice?

What is your product?

Why do people need your product?

What are some other things you need to consider when planning your advertisement?

## Apple juice as sugary as Coca-Cola, experts warn

Sarah Whyte

Published: August 26, 2013 - 3:00AM

**smh.com.au**  
**The Sydney Morning Herald**

Apple juice has as much sugar as soft drinks, and health experts are warning consumers to limit consumption or risk gaining weight.

Often selected as the healthier option over soft drinks or energy drinks, apple juice is no more than a "sugar syrup", nutritionists say.

"It's just like drinking Cola-Cola, it's no different," Dietitians Association of Australia spokeswoman Kellie Bilinski said.

"That's the misconception that people think, 'oh it's good for me'. I would much prefer people drank water and ate the fruit."

Fairfax Media found a bottle of Coles' Finest Australian cloudy apple juice contains more kilojoules and carbohydrates than a bottle of Coca-Cola, based on an average of 100ml. The Daily Juice Company apple juice contained more kilojoules than a soft drink, but slightly less carbohydrates and sugar.

The Goulburn Valley lemon fruit juice contained the least amount of sugar and carbohydrates, compared with Daily Juice five fruits and apple juice and the Coca-Cola bottle.

Apple juice is thought to be one of the sweetest juices, and because it is comparatively cheap, it is used as a base by juice bars.

Nutritionist Rosemary Stanton said when you removed the fibre from the apple juice, it became little more than sugar syrup.

The Australian Dietary Guidelines recognise fruit juice as a serve of fruit, but limit it to 125ml, when the average bottle is 400ml.

Dr Stanton said consumers were eating up to five large apples within one bottle of juice, which exposed them to far too much sugar.

"You could never take in that much sugar naturally," she said. "You need to look for juices that are made from squashed fruit, and they have a high fibre content."

## Apple juice as sugary as Coca-Cola, experts warn

"It's better than Coke, but not much."

National director of cardiovascular health at the Heart Foundation, Dr Rob Grenfell, agreed that fruit juices should be considered as "special treats" rather than daily routines.

"We tend to look at sweetened drinks as energy, that in the sense of soft drink and fruit drinks, are largely unnecessary and you need to burn them off."

In a report by Choice, it found fruit frappes and smoothies, such as the ones sold at Boost Juice and Donut King, also contained high levels of sugar. "Consumers should remember that fruit juice contains sugar, so the bigger the bottle, the bigger the sugary punch," Choice spokesman Tom Godfrey said.



Source: <http://www.smh.com.au/lifestyle/diet-and-fitness/apple-juice-as-sugary-as-cocacola-experts-warn-20130824-2sier.html>

*Star Focus*



1 Did the author try and convince you of anything? What and how?

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2 Can you identify the facts? The opinions? What are they?

Facts \_\_\_\_\_

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Opinions \_\_\_\_\_

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3 What new information did you learn?

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Continued over.

## Star Focus



4 Were there any photos/illustrations? Explain why you believe it was important to include this.

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5 Summarise this article into five points

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## Granny Smith Apples are named after a Real Granny Smith

Today I found out that Granny Smith apples are named after a real Granny Smith.

Maria Ann Sherwood was born into a farming family in England in 1799. Because of her parents' work, she became interested in agriculture and began working on the farm as well. When she was just nineteen years old she married a man named Thomas Smith, who was also a farm labourer, and the pair managed a farm in Beckley for the next nineteen years, beginning a family of their own.

In 1838, government officials were recruiting people from agricultural backgrounds who possessed the skills desperately needed for farms in Australia. Along with several other families from the area, the Smiths boarded the Lady Nugent and arrived in Sydney on November 27, 1838. Upon their arrival, Thomas was given a job by Mr. Smart of Kissing Point, later to become Ryde, and earned £5 per year as a farm labourer.

Like most people in the area, the Smiths honed their skills as orchardists. Fruit abounded in the district.

Between 1855 and 1856, the Smiths bought their own lot of land and began their own orchard. Maria Ann Smith enjoyed raising her own seedling apples, just as many of her neighbours specialized in other varieties of fruits. There are several different accounts about her discovery of her namesake apple, but the most likely one comes from an article in *Farmer and Settler* from 1924.

Herbert Rumsey, who published the article, was also an orchardist in the area and interviewed two other farmers who knew Granny Smith. They said that in 1868, Maria Ann Smith, then 69 years old, found the seedling growing by a creek on her property. She believed that the seedling had grown from French crab apples (it is now believed that the apple is a cross between the *Malus sylvestris*, or European Wild Apple, and the *M. domestica*, or domestic apple). Granny Smith began to cultivate this new apple tree. Yet another local, Edward Gallard, developed a large crop of them from cuttings from the first tree and continued to do so annually until his death in 1914.

The apples became widely popular in Australia and New Zealand. Displayed at the Castle Hill Agricultural and Horticultural Show in 1891, "Smith's seedling" won the prize for best cooking-apple. In 1895, Granny Smith Apples were being produced at the Government Experimental Station in Bathurst, New South Wales on a large scale. Soon after, they were included on the list of fruits suitable for export put out by the Department of Agriculture. The apples were introduced to Great Britain in 1935. This particular apple is a relatively recent addition to the United States, where it was introduced in 1972 by Grady Auvil of the Auvil Fruit Company.



Continued over.

Source: <http://www.todayifoundout.com/index.php/2013/05/granny-smith-apples-are-named-after-a-real-granny-smith/>



## Granny Smith Apples are named after a Real Granny Smith

Unfortunately, Granny Smith herself never saw her apples gain commercial recognition. She died in 1870, just two years after discovering the apple seedling on her property. The apples were sustained and propagated by local orchardists until they became well-known, but it is Granny Smith who will be remembered as the woman who discovered one of the most well-known green apples.

### BONUS FACTS:

- There are seemingly limitless varieties of apples that could come from any one apple producing operation. There are currently 2,500 varieties of apples grown in the United States, and 7,500 grown throughout the world.
- Granny Smith's great-granddaughter, Edna Spurway, lived to be 101 and attributed her long life to "lots of apples."
- Granny Smith apples contain a higher concentration of antioxidants than most other apples. A medium-sized Granny Smith also contains 20% of the daily recommended intake of Vitamin C and contains high levels of Vitamin A and dietary fibre.
- A Granny Smith Festival is held every year in Ryde, New South Wales to celebrate Smith's life and legacy. Around 80,000 people attend the festival every year, enjoying fireworks, a parade, carnival rides, and other entertainment.
- Because of their high acidity, Granny Smith apples are able to hold their shape better when they are cooked, which is why they are favoured for baking into pies.
- Granny Smith apple trees are one of the fastest growing apple trees and can live for over fifty years if given the proper care.
- Granny Smith Apples are probably the most well-known green apples, but several other varieties of apples with green skin exist, including Golden Delicious and Ginger Gold (both of which are a yellow-green), and Mutsu or Crispin apples, which were developed in Japan in 1948.
- Granny Smith Apples tend to keep their white colour longer than other apples once cut. However, to keep them white even longer, here's a trick: rubbing apple slices with lemon juice will keep the apple slices looking white for several hours, rather than turning brown. When an apple is cut open, it releases a chemical called polyphenol oxidase which reacts with the oxygen in the air, resulting in the brown colour. The ascorbic acid found in lemon juice stops this reaction from happening because the oxygen will react with the acid first.
- The recommended storage for Granny Smiths is to keep them in the fridge at as cold of a temperature as possible.

Source: <http://www.todayifoundout.com/index.php/2013/05/granny-smith-apples-are-named-after-a-real-granny-smith/>

## Persuasive Letter

The purpose of persuasive writing is to persuade a reader to a point of view on an issue. Persuasive writing may express an opinion, discuss, analyse and evaluate an issue.

It may also entertain and inform.

The style of persuasive writing may be formal or informal but it requires the writer to adopt a sense of authority on the subject matter and to develop the subject in an ordered, rational way. A writer of a persuasive text may draw on their own personal knowledge and experience or may draw on detailed knowledge of a particular subject or issue.

In a bid to get more children increasing their fruit intake, your school principal has just announced that a free apple juice will be given to each student at recess and lunchtime. You have been nominated by the parents to compose a letter to the principal explaining to him why this is a bad idea. Use the information provided in the [smh.com.au](http://smh.com.au) article as a guide as to the reasons why this is not a good idea. Remember, your job is NOT to tell the principal what to do but to PERSUADE the principal into making the right decision.

### AS A GUIDE; YOU MAY WANT TO INCLUDE THE FOLLOWING:

- Three points as to how fruit juices aren't as 'healthy' as what people think.
- Not all fruit juices are the same. Explain the variations between the different companies
- Use strong, persuasive words that make the principal aware how strongly you (and others) feel about this.
- Follow the structure of the introduction, development of argument (body) and conclusion.
- Remember who your audience is and think about what words and arguments will convince him/her.
- EDIT! EDIT! EDIT! Do not forget to check your spelling and sentence structures. Editing is vital to ensure that you get your point across in an impressive way
- GOOD LUCK!

# Reading Non Fiction

**TITLE** of the article:

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**SOURCE** of the article:

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**AUTHOR** of the article:

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Summary of the article

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Three things I learned

1 \_\_\_\_\_

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2 \_\_\_\_\_

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3 \_\_\_\_\_

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1 \_\_\_\_\_

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2 \_\_\_\_\_

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3 \_\_\_\_\_

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Three things I would like to know more about...

## Mrs Granny Smith

After reading *Granny Smith Apples are Named After a Real Granny Smith*, imagine that you are Maria Ann or Thomas Smith and you have been approached by government officials to move to Australia.

Take note of the dates in the text and research what Australia, in particular rural Australia was like in 1838. Your task is to write four diary entries from Maria's or Thomas' point of view describing what life would have been like then. It must be factual!

The diary entries do not have to be consecutive but they do have to be in order.

**November 30, 1838**

**Dear Diary**

**We have arrived! The trip on the Lady Nugent was terrible...**

# MATHEMATICS



## Estimating Capacity

You will need several apples of the same variety. You will also need at least six different types of containers. You will also need a sharp eye and curious mind!

Estimate how many apples will fit in each container. Once you have recorded your estimation, fill each container full of apples (NO PART OF THE APPLE CAN BE ABOVE THE RIM). How accurate were your estimations?

TYPE OF CONTAINER	ESTIMATION OF AMOUNT OF APPLES	ACTUAL CAPACITY	HOW FAR AWAY WERE YOU

## A Weighty Issue

Three large tubs of apples have been picked at the Walker's orchard.

**Tub One weighs 7.35kg**

**Tub Two weighs 8.20kg**

**Tub Three weighs 6.45kg**

**IN AN APPLE WEIGHING COMPETITION, A TUB IS AWARDED A POINT FOR EACH GRAM THAT IT WEIGHS.**

**How many points does each tub gain?** Show your working out below.

## Apple Figures

Use the following facts and figures to answer the questions below;

In 2012/2013 the value of apples in Manjimup was \$17.9 million.

The value of apples in the South West is \$27.2 million

Production of apples in Manjimup is predicted to increase by 25% by 2017.

In 2011, Manjimup produced 14, 150 tons of apples.

The South West produced 26,562 tons of apples in 2011.

In 2001, apple production was 7, 443 tons.

### QUESTIONS:

- 1 10% of the value of apples produced went back into the community. How much money went back to the community?

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- 2 How many more tons of apples did Manjimup produce in 2011 compared to 2001?

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- 3 Based on the numbers of production of apples in Manjimup in 2011, how many tons are predicted to be produced in 2017?

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- 4 Assuming the prediction of production is wrong for 2017, and in fact the production will increase by 50%, what will be the amount produced then?

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- 5 In 2011, 25% of the apples produced in Manjimup were Royal Galas. How many tons was this?

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- 6 Create two of your own word problems like those above for your partner. Make sure you know the answer yourself as well!

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## Favourite Apples

Use the graph on the following page to answer the following questions.

1 How many more children liked Royal Gala compared to Granny Smith?

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2 What are the two most popular apple varieties?

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3 How many children in total were surveyed?

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4 What was the least liked apple variety?

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5 What was the difference between the most popular apple and the least liked apple variety?

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6 What was the second most popular apple variety?

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7 If you had to combine Royal Gala and Granny Smith apples - what would the number of children be now?

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8 List the apples in order from least popular to most popular.

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9 Which two columns could you combine to be more than that of Pink Lady?

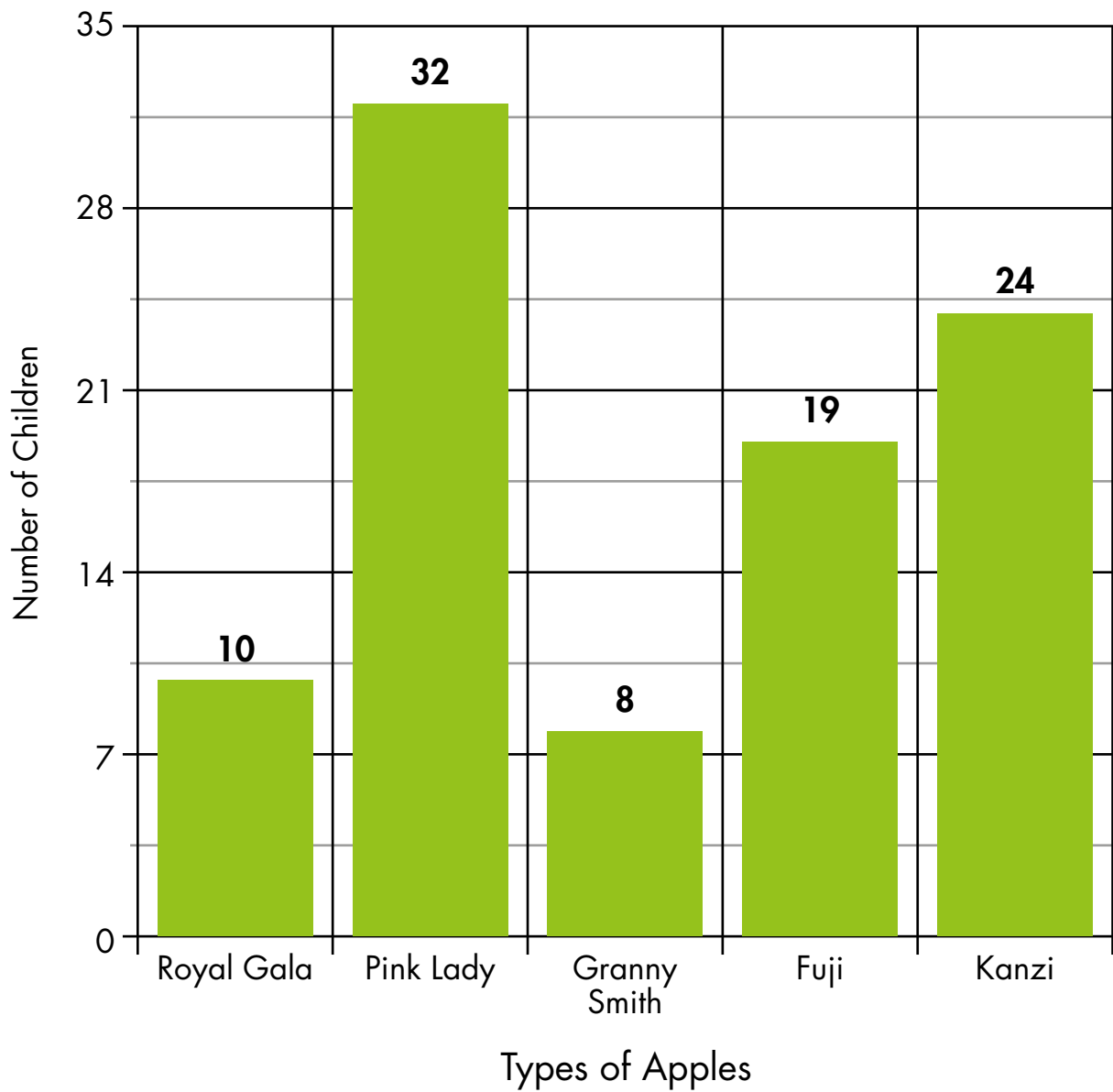
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10 If you had to choose which apple variety was your favourite - which one would you choose?

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# Favourite Apples Graph

## FAVOURITE APPLES



## Perimeter and Area

You have recently purchased a block of land for your new orchard. You need to work out where the fences are going to go so that the cattle can also graze around the trees, however, you want the greatest area for the trees.

- 1 Look at the designs below and build them with the blocks.
- 2 Change each one to make a new one with the same area, but a shorter perimeter.
- 3 Change each one to make a new design that has the same area and perimeter but a different shape.
- 4 Can you remove a block so that each perimeter is greater than it was?

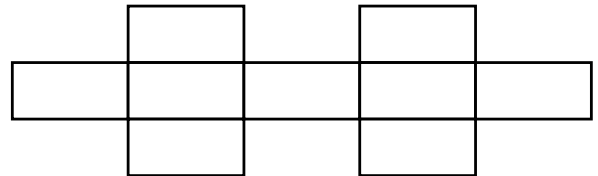
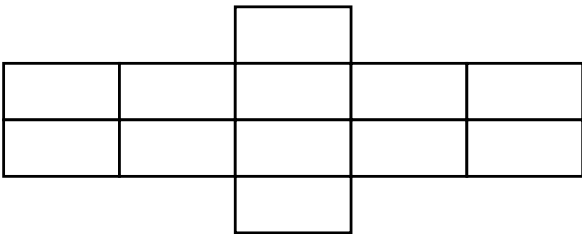
5 Make a design that has an area of 6 square units and:

a) and a perimeter of 10 units

b) a perimeter of 12 units

c) a perimeter of 8 units. Can it be done? \_\_\_\_\_

6 Which of your designs would you recommend for the shape of a farm? Why?



# Perimeter and Area

## WORD PROBLEMS

Jim has a regular hexagonal shaped paddock. He needs to fence the whole perimeter to keep out the sheep. Each side of the paddock measures 3.5kms. How much fencing does he need?

Jim’s wife, Millie, wants to plant some shrubs around the perimeter of her substantial vegetable garden. The perimeter of the garden is 35m. What does each side measure?

Jim’s neighbour, Tony, has a square field. Each side measures 180m. He needs to divide the field exactly in half to ensure all the irrigation pipes reach all the trees. How much piping will he need to go around the perimeter and down the middle of the field?

Write your own perimeter word problem for your partner.

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## The Cost of Apple Farming

The bank has approved your loan to set up an apple orchard.

- 1 You are planting 2000 Hi Early Apple trees. They cost \$17 per tree. How much will this cost altogether?

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- 2 You plan on planting 1000 trees per hectare - how many hectares will you need?

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- 3 It cost \$15,000 per hectare of land. How much will you need to spend on land?

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- 4 You will need to spend \$20 per tree on pipes and sprinklers for the irrigation. How much do you need to budget for the irrigation altogether?

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- 5 You have estimated you will need 7 mega litres of water per hectare. How much water will you need?

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- 6 You have projected a yield of 60 tonnes per hectare. How much do you expect to yield?

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- 7 At current market value, you will receive \$2.00 per kilo for your apples. How much can you expect to make from this crop?

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- 8 What was the total cost of setting up your farm?

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- 9 Have you made enough profit from your apples to cover the cost of setting up your orchard?

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# PROJECTS



## Apple Project Number One

You and your group have been selected to research and deliver a comprehensive presentation on apples to your local community. The Shire have requested you develop a new advertising and selling campaign that will see an increase in the amount of apples bought and consumed for the local and state markets. Some of the information they would like to see would include:

- Information on locally grown apples.
- Benefits of eating apples.
- Best way for people to store/eat/use them.
- Why it is important to support local growers.
- Ideas to get people to eat more apples.
- The cost to consumers.
- A brief history of apples in the area.
- Advertising for newspapers and TV.



You will need to deliver your presentation in a way that is both interesting and engaging. You will need to have samples of your advertising and you may present with a powerpoint/slideshow to highlight the key points.

You will also need to deliver a two page document that is written in a logical order to explain your points from above.

### CONSIDER

Who can help you with this project? Will you allocate people in your group to find out set information and bring it back to the group? Who is creative or has a flair for art that can take care of the “art” side of the presentation? Who knows how to do a powerpoint? Brainstorm all your questions BEFORE you get started!!

### BLOOM’S TAXONOMY: Knowledge, Comprehension, Application

## Apple Project Number Two

The Prime Minister has declared that Australia needs to have a national fruit that people will readily identify with when they think of Australia. He would like this fruit to be known worldwide as Australia being the country that produces the best of the best! He quite likes the idea of the apple being the national fruit!

You and your group have been selected to research and deliver a comprehensive presentation on apples to the Prime Minister to convince him that the apple is the fruit for Australia. Information you will need to convince him may include:

- Different kinds of apples that are produced in Australia.
- Benefits of eating apples.
- The role of agriculture/horticulture in Australia's history and the importance it has and will continue to have.
- What it means to the local economy if international buyers know that Australia has the best apples (Economy)
- A brief history of apples in Australia (in particular Western Australia)
- Some tourism ideas that can be incorporated for tourists.
- Suggested ideas to raise the profile of the humble apple.

You will need to deliver your presentation in a way that is both interesting and engaging. You will need to have some visual aids to assist your presentation as well as having a power point as part of your presentation.

You will also need to deliver a two page (minimum) document that includes all of your key points. The document will need headings, subheadings and some visuals to assist the Prime Minister in his understanding of why apples are the fruit of your choice.



### CONSIDER

Who or what can help you will this project? What will be the best way to make efficient use of your group's time in research? Who can take charge of the power point? Brainstorm all of your questions BEFORE you get started.

**BLOOM'S TAXONOMY: Knowledge, Comprehension, Application, Analysis**



## Apple Project Number Three

You and your group have been selected by an international company (HISTEFF) to research the cost and assess items needed in setting up an orchard in your local area. The company is looking to invest a lot of money however, they need to be aware of exactly what is involved and why you have selected certain aspects of your orchard to include or omit. Some of the information they would like to see, before they decide to invest, may include:

- Prospective sites and locations around your area.
- Information on locally grown apples; which varieties you have chosen to grow and why.
- Monetary cost of purchasing the land and trees.
- A list of negative factors that need considering if the orchard is to go ahead (effect of birds, diseases) to assist with future planning.
- Some firsthand experience of a local grower of what problems they have encountered.
- Identify local companies that can assist with the knowledge of establishing and growing apple trees.
- Where all items required for set up can be sourced and purchased.
- Identify target markets as possible buyers.

It is up to your group how best to deliver this information in a way that is informative and engaging (eg powerpoint, group presentation) however, a written document of at least three pages under the above points must also be submitted. The document will need to be set out in an ordered and logical sequence (headings, subheadings) and include visuals (photographs, maps).

You will need to consider what each person can contribute to the group research and it is important to list all the jobs/research that needs doing BEFORE starting the project.

**BLOOM'S TAXONOMY: Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation**

