

HAMILTON DOWNS YOUTH CAMP ASSOCIATION (INC.)

AN INNOVATIVE APPROACH TO AUSTRALIA'S NATIONAL CURRICULUM

Years 3, 4, 5 & 6

- ✍ English compulsory 2012
- Σ Maths compulsory 2012
- ⌚ History compulsory 2013
- ♁ Science compulsory 2013



THE ULTIMATE OUTDOOR CLASS ROOM WITH ACTIVITIES TO
MEET THE NATIONAL CURRICULUM REQUIREMENTS

Everything is available at the Hamilton Downs Youth Camp
Just bring your sleeping bag, tucker and toothbrush.

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**HAMILTON DOWNS YOUTH CAMP
NATIONAL CURRICULUM – 2012**

ACTIVITIES MATRIX

PRIMARY YEARS 3 to 6

See individual study areas for teaching ideas.

Areas of study addressed:

YEAR LEVELS	ENGLISH			MATHEMATICS			SCIENCE			HISTORY	
	Language	Literature	Literacy	Number & Algebra	Measurement & Geometry	Statistics & Probability	Science Understanding	Science as Human Endeavour	Science Inquiry	Knowledge & Understanding	Historical Skills
YEAR 3	√	√	√	√	√		√	√		√	
YEAR 4	√	√		√	√	√	√	√		√	√
YEAR 5	√	√	√	√	√		√	√		√	√
YEAR 6	√	√	√	√	√		√	√		√	√

School: _____

Notes:

**CLASS 3 ENGLISH FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY
LANGUAGE	<p>LANGUAGE VARIATION AND CHANGE (including cross curriculum priority: Aboriginal histories and cultures)</p> <hr/> <p>EXPRESSING AND DEVELOPING IDEAS</p>	<p>ACTIVITY</p> <p>Understand that languages have different written and visual communication systems, different oral traditions and different ways of constructing meaning.</p> <p>Understand that verbs represent different processes (doing / thinking / saying, and relating) and that these processes are anchored in time through tense.</p> <p>ACTIVITY</p> <p>After completing the petroglyph walk HERE AT Hamilton Downs Youth Camp and discussing the symbols along the trail, show students some common Aboriginal symbols and discuss their meaning.</p> <p>Allocate an area of the dry creek bed to teams of 3 Or 4 students and ask them to give some very simple instructions to their fellow students and see if they can decipher them.</p> <p>Students could also create their own symbols to aid their instructions.</p> <hr/> <p>ACTIVITIES</p> <p>1 VERB GAME</p> <p>Go in to the museum here at Hamilton Downs Youth Camp and collect a series of objects (known and unfamiliar) and place them on the footy field about 10 metres apart.</p> <p>Divide students into teams of 3 or 4 and tell them that they will be thinking of as many USES for these objects as possible. Tell them that as long as the things they think of are VERBS (DOING WORDS) they'll score a point for each.</p> <p>Tell them that the uses don't have to be common place, that IMAGINATION is the key to success in this game.</p>

VERB CHARADES

Use the above objects and activity as a springboard for VERB charades.

3

Pass an object around a circle of students and have them IMAGINE possible uses for it by demonstrating their verb. E.g. a stick could be used for digging / stirring / throwing (if it was used as a spear) / pointing / walking etc.

LITERATURE CREATING LITERATURE

Create imaginative texts based on characters, settings and events from students' own and other cultures using visual features e.g. perspective, distance and angle.

ACTIVITY

CREATIVE WRITING. A 'SENSE' EXPERIENCE AS THE STIMULUS MATERIAL. Divide students into pairs. Blindfold one student and have their partner walk them over and INTRODUCE them to a nearby tree. This helps them to really 'feel' into the task.

Focus on the senses.

Feel the width of the trunk.

Is it upright or leaning?

What is the texture of the bark?

Does it have a smell? Does it have a taste?

Is the tree warm or cool? Does the temperature change in different places?

Now write or tell each other the story of a local ant's journey up this particular tree.

- But only up to the point you 'FELT' when blindfolded.
- Is it easy or hard to make its way up?
- Is it slippery or dangerous at points for the ant? If so, Why?
- Can he hide on his journey or is he exposed to predators etc.?

Draw the images for your story from the ant's point of view.

A good orientation re this perspective would be to show students a few 5 minute episodes of the quirky and totally child friendly French made animation 'Miniscule'.

LITERACY

CREATING TEXTS

Write using joined letters that are clearly formed and consistent in size

ACTIVITIES 1

Have fun in the sands of the very large dry creek bed.

Prior to the activity, each student 'finds' their bush pencil (a stick) with which to 'write' their names in the sand.

Organise students into teams of three if possible, and appoint roles.

The first person to write their name is in charge of writing the straight lines in their name, the second student is in charge of the curved sections of the letters in that name and the third 'watches' for quality control re consistency in size.

There's a limited time to write a name, before roles are swapped and the next person writes their name.

The teacher looks at all the names in the sand at the end, and awards points for clarity of formation and consistency in size.

2

The teacher asks a series of questions and if the students know the answer, they rush to be first person to write the answer CLEARLY in the sand. Upper or lower case could also be specified. To make it a little more tricky, the teacher could request that the students answer in pairs. (One in charge of the straight lines in the answer, the other in charge of the curves.) etc.

**CLASS 4 ENGLISH FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS	ACTIVITY		
<p>LANGUAGE (including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)</p>	<p>LANGUAGE VARIATION AND CHANGE</p>	<p>Understand that Standard Australian English is one of many social dialects used in Australia, and that while it originated in England it has been influenced by many other languages (ACELA1487)</p>	<p>ACTIVITY Hamilton Downs abounds with animals, plants and places which were originally named by the indigenous inhabitants of this country.</p> <p>Since then, these words have become part of Standard Australian English.</p> <p>Students can draw and name any animals, plants or places they can expect to see here at Hamilton Downs and label them using the words derived from indigenous languages. E.g. dingo / wallaby / kangaroo / perentie / galah / Witchetty (bush) / Mulga (bush) / billabong etc.</p>
	<p>EXPRESSING AND DEVELOPING IDEAS</p>	<p>Explore the effect of choices when framing an image, placement of elements in the image, and salience on composition of still and moving images in a range of types of texts (ACELA1496)</p>	<p>ACTIVITY Even though this is a 'fun' exercise, it does require students to explore the effect of their choices when framing an image.</p> <p>Ask students to 'hide' their names in drawings of their surroundings and have their classmates 'find' them. E.g. There are many 'M's, 'U's and 'S's in the mountain scape. The shade area itself is a giant 'C'. 'H's are to be found on many windows and trees contain just about any letter you can think of, as do rocks. Students love to use their imagination and this simple task gives them lots of scope to do so. Equally engaging is trying to 'find' their classmates names disguised in their</p>

drawings.

LITERATURE

CREATING LITERATURE

Understand, interpret and experiment with a range of devices and deliberate word play in poetry and other literary [texts](#), for example nonsense words, spoonerisms, neologisms and [puns](#)

ACTIVITY

Tall stories are a great literary genre for camps and employ the device of hyperbole in an engaging and humorous way.

Read OR tell a few classic Australian tall stories around the campfire of an evening.

There are many involving farm life, drovers, brumbies etc. (all relevant to the history of Hamilton Downs)

Once students 'get to know' the genre, have them retell the events of their day using the same approach.

Much fun is to be had as students embellish and exaggerate. Playing with hyperbole is usually a real hit.

Get an object tell a tall story

Whether or not it's true That's not true this is the real story

That's not true this is the real story of e.g. the drovers mug picture there

ONOMATOPOEIA INCLUDE IN THE STTORY TELLING

CAMP NEOLOGISM SEE IF YOU CAN CREATE ONE AND THEN TAKE IT BACK TO SCHOOL

Write a class poem whilst you are here at Hamilton Downs.

Tall stories

Write whole class simile poems. SEE CLASS 5 SIMILES USE SIMPLER SENSE Based poems for class 4 use rhyme rhythm onomatopoeia (nonsense

words jab
Sound poem only etc.

e.g.

The mountain is like a.....The sky at night is like a ...

The sand is like.... That??? Tree or bush is like.....

The wind is like

Have big sheets of paper that the students can write on whenever they think of a simile. Have space to illustrate their lines too. It could be wonderful to display in the classroom

This could be extended to the concept of metaphor by removing *'is like'* and seeing how it sounds.

Who like metaphors and who likes similes

Each group learns their poems and presents it to the camp on the last day.
All together or a line each.

Include a range of senses taste of salt / sugar / bush food /

Windmill

Bird song

Onomatopoeia make up words which echo the sense of something

Notes:

**CLASS 5 ENGLISH FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY
<p>LANGUAGE</p> <p><i>(INCLUDING CROSS CURRICULUM PRIORITY: ABORIGINAL AND TORRES STRAIT ISLANDER HISTORIES AND CULTURES)</i></p>	<p>LANGUAGE FOR INTERACTION</p> <p>Understand that patterns of language interaction vary across social contexts and types of texts and that they help to signal social roles and relationships (ACELA1501)</p>	<p>ACTIVITIES</p> <p>1</p> <p>Have fun role playing scenes from Hamilton Downs history. Place emphasis on the variety of social contexts from which the protagonists may have hailed. E.g. the owners of Hamilton Downs, the Aboriginal drovers, the officials who issued the pastoral leases, the cook, the smithy, the butcher, a politician, the wives of the various owners and workers, a board member of the Hamilton Downs Youth Camp etc.</p> <p>Students could choose a venue to role play their scene in situ, e.g. the old meat house, the old smithy's workshop, the old homestead itself, the smoke house etc.</p> <p>Teachers could start by introducing students to some classic Aussie 'strine'; the use of which is often associated with 'workers' as opposed to 'owners' or 'officialdom'.</p> <p>Relevant slang / strine to be incorporated in a role play could include:</p> <p>E.g.</p> <ul style="list-style-type: none"> Earbashing (a lengthy discussion or explanation) Face fungus (beard) Fair dinkum (real, genuine, true) FLASH AS A RAT WITH A GOLD TOOTH (dressed nicely) implicit social context. Fair crack of the whip (give me a chance) G'day (hello) Have a gander (have a look) Gasbag (someone who talks a lot) Gibber (a large rock or a desert , as in the Gibson Desert) Grub (food) Grazier (sheep or cattle farmer)

Down the gurgler (down the plug hole, something hasn't worked)
Hard yakka (hard work)
Jackaroo or jillaroo (trainee male or female Cattle Station hand.
Joe Blake (snake)
Knock something (criticise it)
Lady Muck (a stuck up rich lady)
Laughing gear (mouth)
Long drink of water. (someone who is tall)
Moolah (money)
Ridgy didge (true or genuine article)
Sheila (a woman)
Bloke (a man)
Strides (trousers or pants)
Yabba (talk) Long Harry used to 'run' 'paper yabba' into Alice Springs if police were ever needed out at Hamilton Downs. No phones in those days.

ACTIVITY

2

Variation on the theme.

We have many formal documents here in the archives at Hamilton Downs which give students a 'taste' of the formality reserved for these echelons of society.

Students could have fun translating and / or responding to exceedingly formal documents using common place language..

We have many examples here in the Hamilton Downs archives to draw from.

E.g. a letter to the

Hon.J. McEwan, M.H.R.

Minister for the Interior.

Canberra. A.C.T. (28th of March 1939)

OR

The letter from C.L.A . Abbett (administrator)

Dept of the Interior (1941) in relation to

Jay Creek Aboriginal Reserve.

Proposed Additional Area. (Very interesting response. So typical of the time.)

**EXPRESSING
AND
DEVELOPING
IDEAS**

Understand how *noun*
and adjective groups can
be expanded in a variety
of ways to provide a fuller
description of the person,
thing or idea
(ACELA1508)

ACTIVITIES

1

Hamilton Downs serves as the perfect back drop for exercises to do with this focus.

Divide students into pairs for the purpose of learning how to expand a description by combining a related set of nouns and adjectives.

Give them half an hour to walk around the campsite creating rich and full 'descriptions' of whatever they see.

E.g.

Two lean, young dingoes sat by the mouldy, old birdbath behind the rusty, derelict water tank.

A flock of bright green parrots flew across the hazy, blue sky and landed on the knotty, old gum.

Any pattern would suffice.

ACTIVITY

2

Play a game of continuous alphabet adjectives.

Have the students stand in a line facing the Chewings Ranges. Each student steps forward and gives the teacher an adjective for their letter of the alphabet before returning to the end of the line.

E.g. Student 1 has the letter A and says 'awesome'

Student 2 has the letter B and says 'beautiful'

Student 3 has the letter C and says 'colourful' and so on.

It can be played as an elimination game OR not, depending on the group.

If a student has to pass, they are either out or not, but either way it alters the anticipated letter for the students in the queue.

You can leave X and Z out if you wish.

It's good fun.

LITERATURE

EXAMINING LITERATURE

Understand, interpret and experiment with sound devices and imagery, including simile, metaphor and **personification**, in **narratives**, shape poetry, songs, anthems and odes (ACELT1611)

ACTIVITIES

1

An 'onomatopoeic' soundscape is a fun way to introduce students to the 'mood' inherent in the environment. Although a subtle concept, it's a great foundation upon which to anchor aspects of literary criticism in their senior years. Have students 'feel' into the temperature / colour in the sky / the stones beneath their feet / the corrugated metallic water tanks / the sound of the wind in the trees etc. Any experience that engages their senses. Have them create sounds to 'go with' these experiences. They can work in groups and at the end have their fellow students guess which experience they are 'recreating' in sound. Its lots of fun.

ACTIVITY

2

Simile Starters

Have big sheets of paper displayed in the bunkhouses with simile starters written at the top. Place 4 different coloured pencils next to each piece of paper. Allocate each student their 'simile' team and each time a student thinks of one, they write it in their team colour. The group with the most similes written in their colour at the end of the camp wins the simile competition (The same can apply to metaphors, personification etc.)

E.g. The bird song in the morning is like.....
 The Chewings Ranges are like.....
 The sky out here at Hamilton Downs is like.....
 The river bed is like.....
 The old windmill is like.....
 The road into the camp site was like.....

Encourage students to illustrate the similes and collect them to display back in the classroom at school.

**LITERACY
(INCLUDING
CROSS
CURRICULUM
PRIORITY:
ABORIGINAL
AND TORRES
STRAIT
ISLANDER
HISTORIES AND
CULTURES)**

**INTERACTING
WITH OTHERS**

Plan, rehearse and deliver presentations for defined audiences and purposes incorporating accurate and sequenced content and multimodal elements (ACELY1700)

ACTIVITY

Have students work in small groups (or alone) to depict the history of Hamilton Downs in the form of a mini play.

On the last day each group presents their offering for the enjoyment and instruction of their peers and teachers.

OR

Allocate each group (or individual) a particular 'time' or 'event' in the history of Hamilton Downs and have them perform their vignette at the appropriate moment. The play doesn't have to take place in one spot, but can move from venue to venue if relevant to the content.

The first activity on the sheet could certainly be utilised in the planning and presentation of these vignettes.

**CLASS 6 ENGLISH FOR THE NATIONAL CURRICULUM
AT
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STRANDS		ACTIVITY
<p>LANGUAGE (including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)</p>	<p>LANGUAGE FOR INTERACTION</p> <p>Understand that strategies for interaction become more complex and demanding as levels of formality and social distance increase (ACELA1516)</p>	<p>The history of Hamilton Downs provides students with many examples of the complex nature of interaction when 'social distance' is vast and levels of formality totally disparate. Students could role play interactions between any number of figures from HD past. There are several documents students can draw on which highlight this distance including: A letter to the Hon. J. McEwan, M.H.R. Minister for the Interior. Canberra. A.C.T. (dated 28th of March 1939)</p> <p style="text-align: center;">AND</p> <p>A letter from C.L.A . Abbett (Administrator) Dept. of the Interior (1941) in relation to Jay Creek Aboriginal Reserve. Proposed Additional Area on Hamilton Downs land. (Very interesting response. So typical of the time.)</p> <p>Students could adopt any one of the following personas: Minister for the Interior An Indigenous drover Either one of the famous indigenous leaders. King Johnny or Long Harry. One of the pastoralists The wife of a pastoralist. The cook The smithy The butcher The water boy etc.</p>

A modicum of 'dressing up' would enhance the role plays, as would an emphasis on body language and dialect. (The use of the 'strine' you learnt here last year could be included in your exchanges.)

LITERATURE
(including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)

CREATING LITERATURE

Create literary texts that adapt or combine aspects of texts students have experienced in innovative ways
(ACELT1618)

ACTIVITIES

1

The tall story.

Tall stories are an iconic part of Aussie bush literature and really capture the imagination of students. A fun way of reinforcing the core elements of the tall story is through the game. That's not true!!!!!!

Take for example, the Drovers Cup (an item here in the museum at Hamilton Downs Youth Camp)



Pass the cup around the group and as each student is handed the item they respond to their predecessor with the words:

“That’s not true. The cup looks like it does because.....”

And so it goes.

Students can embellish a previous offering or create a whole new tall tale.

Lots of fun.

ACTIVITY

2

The ‘good ol’ ballad.

Read a selection of bush ballads

around the fire of an evening.

As a fun exercise have students create their own ballads about the goings on of that particular day. It can be impromptu and can 'build' around the group.

LITERACY

CREATING TEXTS

Plan, draft and publish imaginative, informative and persuasive **texts**, choosing and experimenting with **text structures**, **language features**, images and digital resources appropriate to purpose and **audience** (ACELY1714)

ACTIVITY

Your task is to create an advertising poster for Hamilton Downs Youth Camp to be displayed in Grade 6 classrooms all over Australia.

Think about what would appeal to you if you were looking at a poster in your classroom.

Questions

What images will you include?

What activities will you concentrate on highlighting?

What colours will you use?

What font / hand writing?

How much text will you include and what will it say?

Will any words be highlighted and if so, why?

Will any thing be CENTRAL on your poster?

If you want to judge them (or have the class judge them) you can do so. A secret ballot counted by the teacher is usually the best way.

THE DROVER'S CUP

The Story

Old Joe had been a Drover a very long time.

This was his tin mug.

He couldn't count the times he'd drunk from this mug to slake his thirst with hot, sweet Billy-tea and wash-down the desert dust that lived in the air like it belonged there, spewed up by the drive.

Too many times...maybe?

See... a Drover doesn't carry much... or care for much if the truth be told, 'specially when musterin's on. But a tin mug is a piece of gold. Can't go on a muster without yer' mug mate!

Look close... his hands are gnarly; the skin's dry and cracked like the landscape he breathes. The red dust lives easily on his body, it's settled, comfortable there. It's part of him and perhaps even flows through his veins.

His fingers, stained with the nicotine of a million rollies, are wrapped lovingly around his morning cuppa'.

The sun begins to thaw his bones from the night's frozen clutches. The steam from his brew mixes with the haw of his breath.

"I'm getting too old for this," he says, stretching his creaking bones, but hey, it's all I know.

Horses and Cows!



CLASS 3 HISTORY FOR THE NATIONAL CURRICULUM AT HAMILTON DOWNS YOUTH CAMP

STRANDS	ACTIVITY
<p>HISTORICAL KNOWLEDGE AND UNDERSTANDING</p> <p>COMMUNITY AND REMEMBRANCE</p> <p>An important example of change and of continuity over time in the local community, region, state or territory, for example, in relation to areas of transport, work, education, natural and built environments, entertainment, daily life..</p>	<p>ACTIVITIES</p> <p>1 HAMILTON DOWNS YOUTH CAMP was listed in Australia's National Estate in October 1980 and is a living example of all that is contained in this National Curriculum descriptor. It's a precious resource that depends on current and future generations knowing about it and having a positive attitude towards its preservation.</p> <p>Hamilton Downs Youth Camp contains original dwellings built circa 1911 – 1914, utilizing the materials and techniques of the day. They include the homestead, a kitchen, a smoke house, a meat house, stables and blacksmith's workshop (which converted to a museum displaying artefacts and technologies from this by gone including an forge with bellows)</p> <p>The whole environment provides with real information and an appreciation for how people lived and worked here in the past. Students could paint, draw, model or make replicas of these historical technologies.</p> <p>2 Students could play a game of 'horse-shoe quoits'. A recreational pass time devised by the Smithy's of old. There are many old horse shoes available for this purpose in the museum.</p>



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era -
students

COMMUNITY AND REMEMBRANCE

Acknowledge days or weeks celebrated or commemorated in Australia and the importance of emblems and symbols.

ACTIVITIES 1

Although it's not an 'official' celebration, students could create their very own Hamilton Downs flag and fly it here at the site.

There are three flagpoles and the second is able to fly a couple of flags at a time.

They could create their own'.Why Hamilton Downs is special to me'

OR

'Why Hamilton Downs is included in the National Estate' flags.

All you need is a piece of calico per student or team of students, art materials suitable for use on calico and some 6 to 8 ml eyelets (we have flag pole ropes, clips and eyelet punches here at the camp, but if your students want to continue their flag making skills after they leave, it might be worth investing in your own.)

OR

For something more attach flags to found sticks a flag march around the oval.



simple; and have football

2

A game of 'Capture the Flag' is also a winner. It's subtext is that flags are very powerful symbols indeed.

Players are divided into two teams.

Each team has its territory with a boundary (e.g. a piece of rope) between the two. Each team must also pick a spot to serve as a jail (e.g. a particular rock or tree that a prisoner has to touch).

Another decision to be made is how large the designated safety zone around the flag should be. When the game begins each team must decide where to place its flag. Once place, it cannot be moved, although it can be guarded. Those guarding their own flag must not enter the safety zone unless in pursuit of an opposing

**COMMUNITY AND
REMEMBERANCE
(including cross
curriculum
priority:
Aboriginal
histories and
cultures)**

The importance of Country and Place to aboriginal people who belong to a local area.

team member.

Once the flag is placed, team members are assigned to guard it OR to be among those who enter enemy territory to try to capture the other team's flag. Any player in enemy territory can be caught and put in jail. For Class Three students a capture is made when a student from the opposing team is tagged.

Prisoners are sent to jail and can be released by being tagged by a teammate, but only one prisoner can be rescued at a time.

A team wins the game by capturing the other team's flag and carrying it back to their home territory. If a flag is seized but is recaptured before reaching the opponents' territory, the flag is set up where it is captured. If a game must end before a flag is captured, the team with the most prisoners wins.

ACTIVITIES 1

Prior to the camp or during the camp Invite someone from the local Aboriginal Community to come and talk to you about Place and their Country.

Some children in the class may also be familiar with aspects of Aboriginal culture. These students can teach those who are not about it.

2

Once the children know a little about traditional Aboriginal life, have them imagine' into being an Aboriginal child living 20,000 years ago.

They could sit around the fire here at HDYC of a night and tell each other stories about their day. They could 'imagine' what food they ate, the animals they saw and perhaps captured and their leisure activities, any cultural or ceremonial activity they participated in (or watched from a distance). They could also imagine some funny things that may have happened.

You could move the story around a circle or have those who wish to participate in the storytelling taking the floor while the others listen and enjoy the fire.

3

Read the students some Dreamtime stories OR have some children tell the class Dreamtime stories they may already know.

Talk with them about the significance of sacred sites and Dreaming sites to Aboriginal people.

**CLASS 4 HISTORY FOR THE NATIONAL CURRICULUM
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STRANDS	ACTIVITY	
<p>HISTORICAL KNOWLEDGE AND UNDERSTANDING (including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)</p>	<p>FIRST CONTACTS</p>	<p>Explore the diversity and longevity of Australia's first peoples and the ways Aboriginal and all peoples are connected to Country and Place (land, sea, waterways and skies) and the implications for their daily lives.</p> <p>ACTIVITY 1 Prior to coming out to Hamilton Downs Youth Camp, ask some local indigenous experts to come and speak to the students about this connection.</p> <p>In Grade 4, the role of 'animals' and their connection to humans, is particularly interesting to students. Speakers could perhaps concentrate on stories associated with the LAND dwelling animals / WATER dwelling animals and birds common in the SKIES around the Hamilton Downs area.</p> <p>The differences between the hunter / gatherer culture of the indigenous population and the animal husbandry introduced by the pastoralists could be emphasised here, as Hamilton Downs is now a working cattle station.</p> <p>Compare the role and nature of the non-cloven hooved animals with the role and nature of the cloven-hooved creatures.</p> <p>2 (Links with English) As a lead in activity to an appreciation of the connection that all people have with Country / Place, it would be good to have students write creatively about a place that is special to them. 'My Special Place' could include descriptions of: the physical surroundings, any tactile experiences, the colours, sounds, elements (water, fire, breezes, temperature etc.) Any animals in the area, how it makes them feel.</p>

<p>HISTORICAL SKILLS (including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)</p>	<p>CHRONOLOGY, TERMS AND CONCEPTS</p>	<p>Sequence historical people and events</p>	<p>ACTIVITY Students really 'get it' when they physically STEP OUT a time line.</p> <p>The dry creek bed or football field here at Hamilton Downs Youth Camp are wonderful physical spaces to EXPERIENCE STEPPING OUT timelines such as the white settlement of the country compared to indigenous occupation.</p>
	<p>PERSPECTIVES AND INTERPRETATIONS</p>	<p>Identify different points of view.</p>	<p>Given that the story of the former is just over 200 years old compared to indigenous occupation, (estimates range between 40,000 and 60,000 years), it makes for a very interesting 'WALK'.</p> <p>You can use any ratio you wish but 1 step for every 1,000 years works well, as students can only slide one foot in front of the other right at the end to represent 200 plus years.</p> <p>This activity also works to reinforce an understanding of percentage.</p> <p>ACTIVITY As the students are relatively young in Class 4, it would probably be good to 'build' on the understanding engendered about connection to Place / Country in Activity 1. (First Contacts) Have students elect to be in a farmers group OR an Aboriginal group.</p>

Topics such as:

- domesticated animals (name the species you wish to include)
- native animals (name the species you wish to include)
- land
- fences
- money
- fire

could be used as starting points for 'putting a particular point of view' forward.

Each student could be allocated a group and a topic and stand next to their respective counterparts when presenting their point of view.

**CLASS 5 HISTORY FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY
<p>HISTORICAL KNOWLEDGE AND UNDERSTANDING (INCLUDING CROSS CURRICULUM PRIORITY: ABORIGINAL AND TORRES STRAIT ISLANDER HISTORIES AND CULTURES)</p>	<p>THE AUSTRALIAN COLONIES</p>	<p>The role that a significant individual or group played in shaping a colony; for example, explorers, farmers, entrepreneurs, artists, writers, humanitarians, religious and political leaders, and Aboriginal and/or Torres Strait Islander peoples. (ACHHK097)</p> <p>ACTIVITIES</p> <p>1 THE STORY OF KING JOHNNY AND LONG HARRY</p> <p>Students love hearing about these Aboriginal heroes. They played significant roles in the shaping and development of the pastoral industry here at Hamilton Downs.</p> <p>King Johnny, an Aboriginal drover who wore a brass chest plate, reigned supreme amongst the stockmen in this area. His knowledge of the terrain around Hamilton Downs was invaluable to the cattle farmers as he 'knew' where to find water and the best food for the stock. The Harris family admired King Johnny and Mrs. Harris in particular said that he never swore. She thought so highly of him that she gave him her 22 Winchester rifle as a present. Before her death, Mrs. Harris recalled the very happy relationship they had with the Aboriginal people who would sing happily every night down by the creek. The children would invite her to their own special corroborees and when this happened Mrs. Harris used to bake a cake for them in half an old kerosene tin.</p> <p>Here's another extract from one of the best narratives of Hamilton Downs I've come across. It's taken from a website entitled 'Voices from the Outback'.</p> <p>Just Google 'Voices from the Outback' and follow the link to</p>

Hamilton Downs.

<http://outbackvoices.com/places/hamilton-downs>

Aborigines camped on a hill near the old meat house. One man, called "King Johnny," was presented with a pension for life as a reward for services rendered to the Harris family.

In times of emergency, or whenever news needed to be conveyed quickly to, say, the police in Alice Springs, a trusted Aboriginal, Long Harry, travelled by foot via a gap in the MacDonnell Ranges near Fish Hole, carrying with him "paper yabba" (a note for the policeman). The return journey was accomplished in a day between sunrise and sunset, covering a distance of approximately 40 miles. In those times, it was noted, some Aboriginal message runners could cover 100 miles in 24 hours.

Bill Prior remembered: "We had a lot of Aborigines there. We had, I suppose, about seven or eight working boys and their families. Old 'King Johnny' was boss of all that mob. I think he originally came from Jay Creek. He was one of the greatest old gentlemen you could ever meet. He was a grand fellow. All that mob were just about related. Over all, I reckon we would have had at least 30 who were permanently camped there. Our kids grew up with their kids. All the Aborigines moved permanently to the new homestead in the late 40s or thereabouts. One of the Aboriginal kids always reckoned he was born under a tree not far from the old meat house. In those days they didn't have anything like a camp. It was just bough sheds or old windbreaks, with bits of galvanised iron.

2

Imitating Long Harry.

Have students **run** for as long as they can before taking a break.

Who's left running at the end? A bit of fun.

**HISTORICAL SKILLS
(INCLUDING CROSS
CURRICULUM
PRIORITY:
ABORIGINAL AND
TORRES STRAIT
ISLANDER HISTORIES
AND CULTURES)**

**CHRONOLOGY,
TERMS AND
CONCEPTS**

Sequence historical people
and events (ACHHS098)

**PERSPECTIVES
AND
INTERPRETATIONS**

ACTIVITIES

1.
THE STORY OF HAMILTON DOWNS
There are several versions of the 'story' of Hamilton Downs available for teachers to use prior to and during their visit to Hamilton Downs Youth Camp.

They speak of the evolution of the property from the years 1860 to 1993.

One of the best is the version mentioned above, to be found on the website, 'Voices from the Outback. Hamilton Downs'.

After telling students the 'story', teachers could get students to make class sets of 'cards' containing the key events and / or people in the history of Hamilton Downs.

Divide the group into teams and give them each a set. After shuffling the cards well, the winning team is the first to place the sets of cards in the correct order along chalk lines on the football oval or lines drawn with a stick in the dry creek bed.

2. (Also included in Grade 4 suggestions)
Students really 'get it' when they physically STEP OUT a time line. The dry creek bed or football field here at Hamilton Downs Youth Camp are wonderful physical spaces to EXPERIENCE STEPPING OUT timelines such as the white settlement of the country compared to indigenous occupation.

**EXPLANATION
AND
COMMUNICATION**

Identify points of view in
the past and present
(ACHHS104)

Given that the story of the former is just over 200 years old compared to indigenous occupation, (estimates range between \$40,000 and 60,000 years), it makes for a very interesting 'WALK'.

You can use any ratio you wish but 1 step for every 1,000 years works well, as students can only slide one foot in front of the other right at the end to represent 200 plus years.

This activity can also be run. A suggested ratio being one stride for every 100 years.
(It doubles as a good workout)

ACTIVITIES

1.

Have students elect to be in one of several groups (all relevant to the history of Hamilton Downs Youth Camp)

Groups could include: Aboriginal groups, pre white settlement and post white settlement / pastoralists / pastoralists wives / drovers / founders of the youth camp.

Topics such as:

- domesticated animals (name the species you wish to include)
- native animals (name the species you wish to include)
- land
- fences
- money
- fire

Could be used as starting points for 'putting a particular point of view' forward.

Each student could be allocated a group and a topic and stand next to their respective counterparts when presenting their point of view.

Could be fun if students wish to 'inhabit' their character and role play their responses. Simple props could be used to enhance the experience.

2.

The creation of a poster advertising the benefits of Hamilton Downs over its lifetime, could advance an understanding of past and present points of view.

E.g. A poster from the indigenous perspective.

A poster from the pastoralist's perspective.

A poster from the drover's perspective.

A poster from the board of the Hamilton Downs Youth Camp.

Develop texts, particularly narratives and descriptions, which incorporate [source materials](#) (ACHHS105)

ACTIVITY

Put students into groups and have them choose an **historical site** here at Hamilton Downs Youth Camp, around /on / in which to **stage** a re-enactment of an incident that may have occurred there in the past.

There are so many locations (sources) that can serve as imaginative grist for the mill.

There's the old meat house, the homestead itself, the museum (old smithy's quarters with bellows and forge), the original kitchen, the windmill, just to mention a few.

**CLASS 6 HISTORY FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS	ACTIVITY
<p>HISRORICAL KNOWLEDGE AND UNDERSTANDING</p> <p>AUSTRALIA AS A NATION</p> <p>(including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)</p>	<p>The contribution of individuals and groups, including Aboriginal people and/or Torres Strait Islanders and migrants, to the development of Australian society, for example in areas such as the economy, education, science, the arts, sport. (ACHHK116)</p> <p>ACTIVITIES</p> <p>1. BARK PAINTING (CONTRIBUTION TO THE ARTS) Australia is renowned overseas for having the best collection of ‘bark paintings’ in the world. Prior to the coming of European settlers, Aboriginal people had a complex and thriving ‘art culture’.</p> <p>One of the materials they used to paint on was bark itself.</p> <p>There are so many large pieces of bark on the ground around the trees in the river bed, that it might be fun to have the students ‘experiment’ with painting on bark themselves.</p> <p>2 BUSH REMEDIES (CONTRIBUTION TO SCIENCE-MEDECINE) Long-leaved Corkwood trees and the Rock Fuchsia Bush are plentiful here at Hamilton Downs Youth Camp. Follow the simple instructions below and make your own bush remedies.</p> <p>For mouth ulcers and cold sores. Collect a bit of bark from the Long-leaved Corkwood. Put it on the edge of your camp fire until it starts to glow red. Take it off and let it cool. It will then be black.</p> <p>Crush the bark up into a black powder and store it in your classroom until someone has an ulcer or cold sore to rub it in to</p>

For coughs and colds

Collect a large handful of leaves from the Rock Fushia Bush. Boil them until the water turns a dark colour. When you have a cough or cold ask your teacher for some of the remedy to take home. Pour it into a hot bath and inhale the vapour. You can also crush the leaves and mix them with hot Vaseline or paw paw cream to make a rub.

3.THE STORY OF KING JOHNNY AND LONG HARRY (adapted from Grade 5) (CONTRIBUTION TO THE ECONOMY)

Students love hearing about these Aboriginal heroes. They played significant roles in the shaping and development of the 'economy' here at Hamilton Downs.

King Johnny, an Aboriginal drover who wore a brass chest plate, reigned supreme amongst the stockmen in this area. His knowledge of the terrain around Hamilton Downs was invaluable to the cattle farmers as he 'knew' where to find water and the best food for the stock. The Harris family admired King Johnny and Mrs Harris in particular said that he never swore. She thought so highly of him that she gave him her 22 Winchester rifle as a present.

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Have students *run* for as long as they can before taking a break. Who's left running at the end? A bit of fun.

HISTORICAL SKILLS

(including cross curriculum priority: Aboriginal and Torres Strait Islander histories and cultures)

CHRONOLOGY, TERMS AND CONCEPTS

Sequence historical people and events. (ACHHS117)

ACTIVITIES

1.

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1. (Also included in modified form in Grade 4 and 5)

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HISTORICAL
QUESTIONS AND
RESEARCH

Identify questions to inform
an [historical inquiry](#)
(ACHHS119)

ACTIVITY

Get students to ask questions they're interested in finding out the answers to about the buildings and operations here at Hamilton Downs Youth Camp.
Assign a group of students the task of examining our collection of primary and secondary sources, including all pastoral leases.
See how many of the class questions they can answer from these sources alone.

PERSPECTIVES
AND
INTERPRETATIONS

Identify and locate a range of
relevant sources
(ACHHS120)

ACTIVITIES

1

Debate

By class 6, students can advance more subtle points of view in relation to historical issues.
They can engage in a debate about the use of the land here at Hamilton Downs from the perspective of its original indigenous inhabitants and the present owner of the Hamilton Downs Cattle station.
Copies of all pastoral leases are available as primary source material.

Identify points of view in the
past and present
(ACHHS123)

2

Compare and contrast approaches to **work** and **building** 100 years apart.
Have a look at the construction of the original buildings erected around 1911 and explore the museum to find out what work people

EXPLANATION
AND
COMMUNICATION

Develop texts, particularly narratives and descriptions, which incorporate [source materials \(ACHHS124\)](#)

did and what they used to help them with their tasks. How has life changed? Why is it important to display relics from the past in museums?

ACTIVITY

1

Who's your Hamilton Downs hero?

Many people have been involved in the history of Hamilton Downs; often suffering a great deal of hardship to achieve their ends. From the story you've heard about the history of this camp site, who is your hero?

Describe your hero and tell us a little about why you chose them. You can use any number of source materials (available here at Hamilton Downs) to support your opinion.

**CLASS 3 MATHS FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY
NUMBER AND ALGEBRA	FRACTIONS AND DECIMALS	<p>Model and represent unit fractions including half, quarter, third, fifth and their multiples to a complete whole.</p> <p>Cooking some cakes in the camp kitchen or some loaves of damper over the open fire is a great way of reinforcing your work with fractions. Here we have a whole small cake / smallish loaf of damper, how many of us are going to have a piece of it? We have 1 cake / damper Now let's put a line under the number 1 and write below the line how many people are going to share it. Now let's cut the cake / damper into 4, 5 etc. It's not a WHOLE cake anymore so what will we call those pieces? (quarter, fifth etc.) What does your quarter of the whole, fifth of the whole taste like? A great way of anchoring fractions in the senses, not to mention stomach.</p>
MEASUREMENT AND GEOMETRY	SHAPE	<p>Make models of three dimensional objects and describe key features.</p> <p>You can see the old bones (wood) of the original meat house here at Hamilton Downs Youth Camp. It's a simple but effective design which students could replicate with twigs and string or other found objects.</p> <div style="text-align: right;">  </div> <p>There's so much geometry in this environment, that you could devote a whole camp to it.</p>

**LOCATION AND
TRANSFORMATION**

Identify symmetry
in the
environment.

Here's a suggestion for a game which asks students to recognise (at a subliminal level) aspects of geometry whilst 'getting to know' some of the leaves around the camp.

Ask each student to find a leaf which appeals to them. Get them to study it very, very closely and to memorise as many features of it as they can.

Is it roundish, squarish, oblong etc.. Does it have any lines or marks on it that are unique?

All the leaves are then mixed into a pile and each student must find their own leaf again.

**CLASS 4 MATHS FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY	
NUMBER AND ALGEBRA	MONEY AND FINANCIAL MATHEMATICS	Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies (ACMNA080)	<p>ACTIVITY Real world figures.</p> <p>Give students an itemised list of the food bought for consumption on their camp.</p> <p>Ask them to calculate how much change they would have with if they had \$400.00 to spend.</p> <p>Vary the difficulty of the lists to suit individual differences.</p>
MEASUREMENT AND GEOMETRY	LOCATION AND TRANSFORMATION	Use simple scales, legends and directions to interpret information contained in basic maps (ACMMG090)	<p>ACTIVITY Most students love treasure maps.</p> <p>Give each student a treat of some description to be buried at the end of the creation of their own map.</p> <p>First, have them measure the length and width of the area they will be operating in. There are great areas out here at Hamilton Downs Youth Camp to work in in relation to mapping.</p> <p>Now decide on the proportions they'll use for creating their map's scale e.g. 10 cm equals 20 steps etc.</p> <p>Now have students brainstorm ideas for symbols for the 'things' in this area</p>

and have them create a legend or key based on these symbols e.g. a triangle for small bushes, an oblong for large trees, a square for large rocks, a curly 'S' for the winding creek bed etc.

Have students use these agreed symbols and scales to create their own 'treasure' maps, at the end of which they'll 'hide' their treats.

When the maps are complete, shuffle and redistribute them. Students then become the interpreters rather than the creators of a map, with the added incentive of finding a 'hidden treasure' at the end.

Create [symmetrical](#) patterns, pictures and shapes with and without digital technologies ([ACMMG091](#))

ACTIVITIES

1

GEOMETRY IN NATURE

If your school has access to cameras bring them along and take pictures of symmetry in nature.

Many beautiful examples can be found here at Hamilton Downs Youth Camp. E.g. the precise radial symmetry of the ancient Cycad, the square, fissured bark of the Corkwoods, many wonderfully symmetrical petal formations and the almost 'perfect' inner design of the seed pods.

You can also ask them to take pictures of groups of hands held in particular geometric formations.

All these photographs can then serve as the basis for geometric art works.

2

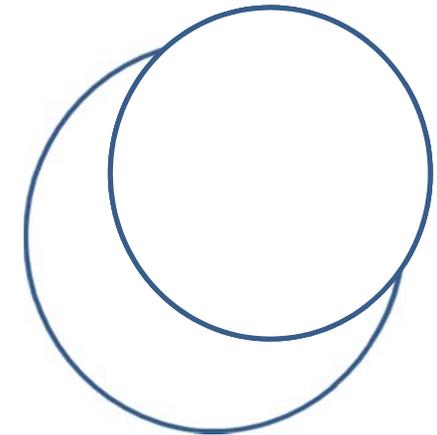
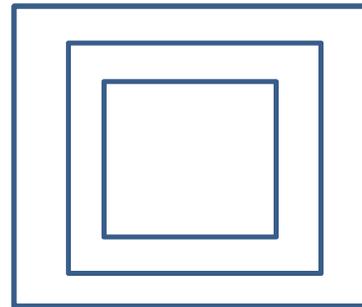
FREE HAND

It's great to get the younger students drawing geometrical shapes free hand because it comes from within, out of their inner sense for those shapes which are archetypal.

One activity which promotes this skill is that of start 'growing' geometric

shapes such as squares, circles and triangles using nothing but sticks in the dry creek bed.

E.g. Start by asking students to draw a small square. They then have to draw a larger version of this square around the original. They keep doing this, trying to keep the distances between each progressively larger square as close as possible to each other. You could specify an approximate size and distance between, or just let the students 'feel' into the notion of 'small' and determine the distance between each square themselves. The winner is the person who's been able to 'grow' this shape with the finest geometrical precision.



This task can also be undertaken visa-versa, from the outer shape progressively moving toward the centre.

GEOMETRIC REASONING

ACTIVITY

3 BODY GEOMETRY

Students love 'moving' at this age, so creating geometrical shapes with their bodies is lots of fun.

Once again, the dry creek bed is a wonderful venue for this game.

Divide the class into 2 teams. Not all students will 'fit' into every shape but teams will need to negotiate who participates in what shapes. A good proviso is that everyone has to be involved in the construction of at least 2 shapes. This way the group has to work with inclusively if they are to be successful. The object is to be the group who makes the shapes first. The teacher starts again by calling relatively simple shapes to begin with, e.g. square, rectangle, trapezium, triangle (and all variations thereof) etc.

It becomes more complicated when instructions become more complex. E.g. create a shape where 2 symmetrical shapes that fit together OR where 3 symmetrical shapes fit together, 2 of the components have 3 sides and one has 4. It would be a square with two triangles attached at either 'end' etc.

ACTIVITY

4 ROPE GEOMETRY

Divide the class into 2 teams.

Give each team a large rope which all members of the team must hold. The teacher calls various shapes and the first team to create that shape wins a point.

Compare angles and classify them as equal to, greater than or less than a right angle (ACMMG089)

ACTIVITIES

1

The more geometrical shapes can be 'embodied' the better, so why not play a game of ' **ARM ANGLES**'

Students start this game by making a **right angle** with their arms. From this point the teacher starts 'calling' the different angles to be constructed (slowly at first then speeding up as the game progresses.)

Angles to be called:

Acute angle

Obtuse angle

Straight angle = 180 degrees

Reflex angle

Full circle = 360 degrees can be included if you wish

For a more complicated version the degree of a particular angle could also be called.

It can be played as an elimination game whereby the students who are 'out' watch the remaining participants make the correct 'type' of angle (hopefully learning by watching)

'CREEK BED ANGLES'

The 'arm' version is an individual exercise whilst the 'creek bed' version can be played in pairs.

Teachers call out the same angles but students have to construct one side each using sticks in the dry creek bed.

ACTIVITY

2

Send students on an angle hunt.

Put students into groups of 4 and give them a period of time in which they have to find as many particular angles as possible. E.g. start with a hunt for obtuse angles. There are many of these evident in the built structures around the camp. Students quickly sketch them and say where OR on which building they are located.

You could choose a different angle to 'hunt' for each day.

STATISTICS AND PROBABILITY

CHANCE

Identify everyday events where one cannot happen if the other happens
(ACMSP093)

ACTIVITY

Have a fun competition happening throughout the camp. Have big sheets of paper displayed in the bunkhouses with a teacher generated 'starter' on each as an example.

E.g.

The sun cannot cast shadows if the sky is full of clouds.

If I don't get out of bed in the morning I won't get to play games.

Place 4 different coloured pencils next to each piece of paper.

Put each student into one of four 'maths' teams. Each time a student thinks of an everyday event that cannot happen if something else happens here at Hamilton Downs, they write it in their particular team colour. The group with the most number of examples (written in their colour) wins the maths competition.

**CLASS 5 MATHS FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS			ACTIVITY
NUMBER AND ALGEBRA	MONEY AND FINANCIAL MATHEMATICS	Create simple financial plans (ACMNA106)	<p>ACTIVITY Real world figures.</p> <p>Involve students in the creation and costing of a five day camp menu.</p> <p>As the menu evolves, ask students to pick a meal to 'cost' the next time they are shopping with their parents / carers.</p> <p>E.g. If it's a desert, all ingredients need to be included for the number of camp participants If it's a main meal, all vegetables, meat, gravies etc. for the number of people at the camp</p> <p>See if the figures the students come up with are mirrored in the final receipts. You could have a bit of a prize for the student who comes closest.</p>

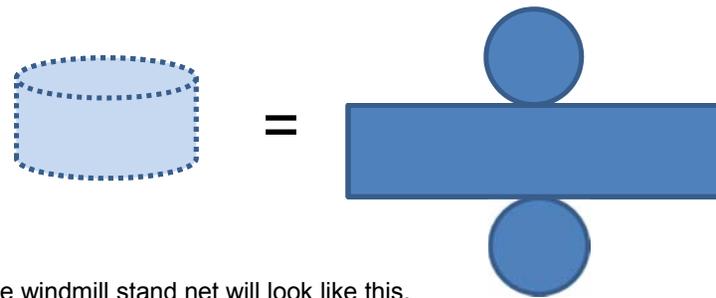
MEASUREMENT SHAPE AND GEOMETRY

Connect three-dimensional objects with their nets and other two-dimensional representations (ACMMG111)

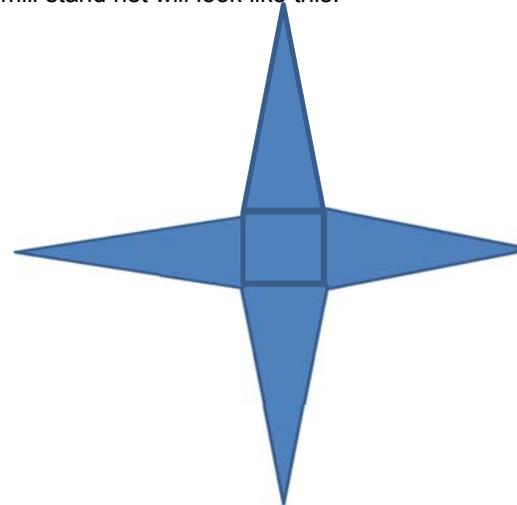
ACTIVITY

In the water tanks and windmill here at Hamilton Downs Youth Camp we see great examples of a cylinder and a square based pyramid. Have students draw the two dimensional shapes and then create their nets using plain and corrugated cardboard. They can then proceed to make the objects.

The net of the water tank will look like this.



The windmill stand net will look like this.



LOCATION AND TRANSFORMATION

Use a grid reference system to describe locations. Describe routes using landmarks and directional language (ACMMG113)

ACTIVITY

Have students take a piece of cardboard and a pencil up to the top of the ridge on the Drover's Hill walk. Once in situ have them look down at all the buildings and infrastructure that make up Hamilton Downs Youth Camp. Have them draw a simple 'bird's eye view' map of the precinct. They learned about scales and legends when they were here last year making their treasure maps. Have them transpose a simple grid system using numbers and letters on to their maps.

Give each student a little treat to hide somewhere in the precinct and have them direct a fellow student to find it. Students must have at least 4 'sticky post its' which are clearly identifiable as belonging to their particular map (e.g. with a symbol or name etc.) stuck at least 4 spots en route to the treat. Each 'sticky post it' has the next grid reference on it and must be found before the treat is discovered at the end of the trail.

E.g. Your trail starts at C1, you proceed to D4 where you will find the next 'sticky post it' with your next set of coordinates on it etc.

ALTERNATIVELY

Distribute the **pre prepared map** of Hamilton Downs Youth Camp and play a version of the 'finding' game described above. The pre prepared map uses a simple number / letter grid system.

GEOMETRIC REASONING

Estimate, measure and compare angles using degrees. Construct angles using a protractor (ACMMG112)

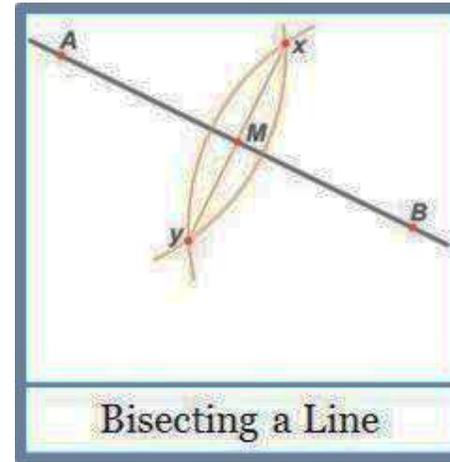
ACTIVITIES

1

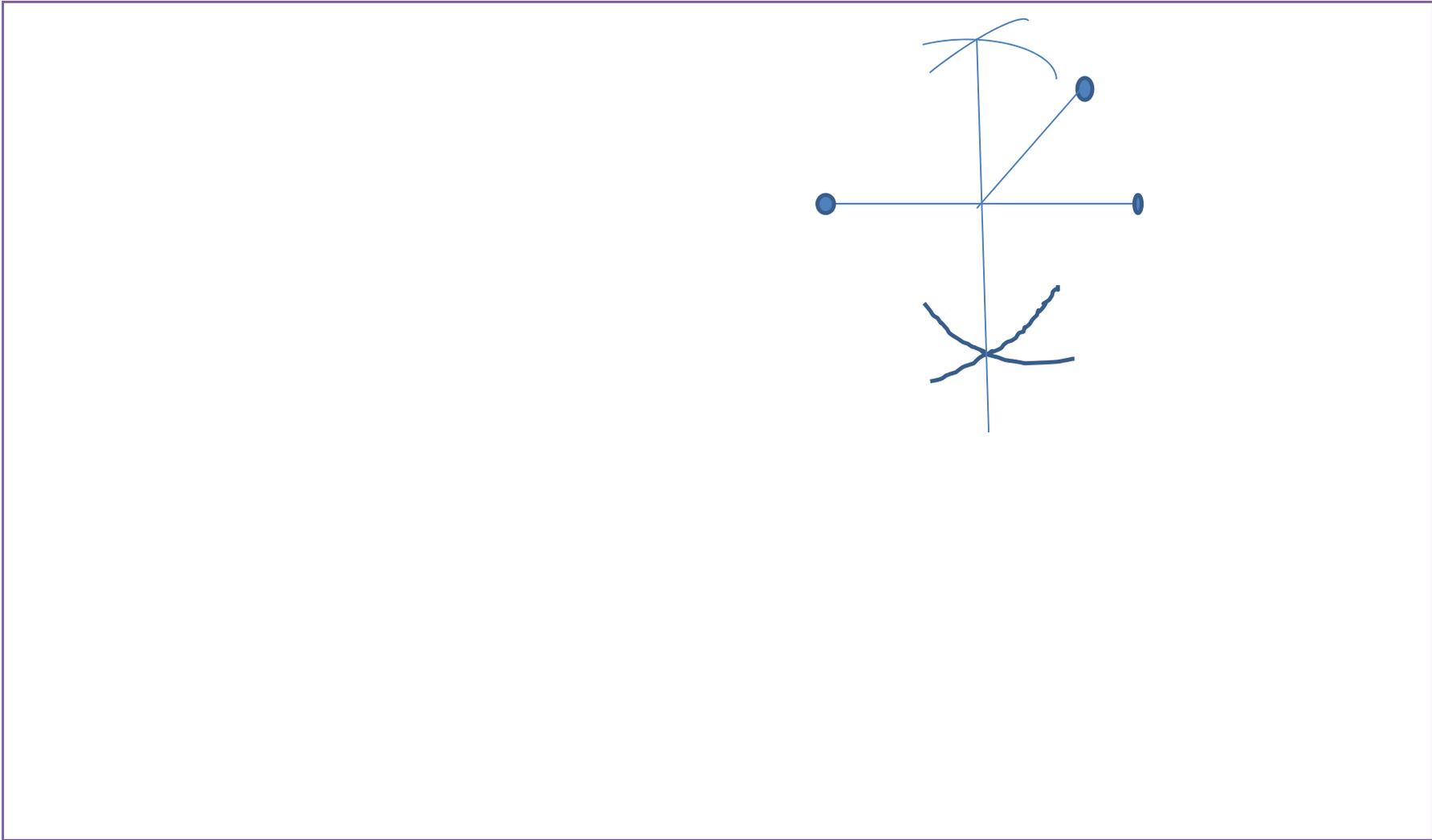
Having learned that the full circle consists of 360 degrees, the students can construct their own rudimentary but much loved protractors. Start by cutting a circle out of a piece of card board and fold it in half for the first subdivision. Fold it in half again to find the 180 degree line and bring it into relation with the students' knowledge of fractions.

2

Prior knowledge: The ability to bisect a line using a compass.



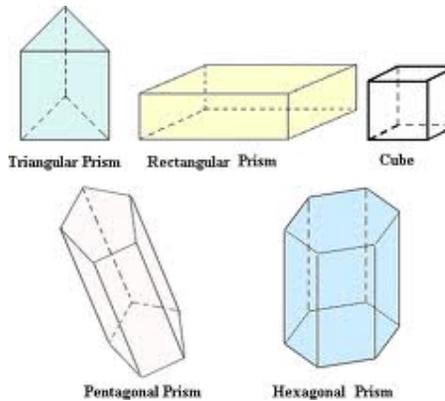
- 1 Create a straight line in the creek bed using a rope. Students may mark it out using rocks or rope.
- 2 Bisect this line using ropes as a compass.
- 3 Create a 90 angle using another rope.
- 4 To create a 45 degree angle from here estimate the distance between the top of the vertical line and the end of the horizontal line, half it, then use a rope as a measuring device to find the exact mid-point between. By marking this point we can draw a line to the axis and it should be 45 degrees. Test it using their home made protractor.



**CLASS 6 MATHS FOR THE NATIONAL CURRICULUM
AT
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STRANDS		ACTIVITY
NUMBER AND ALGEBRA	MONEY AND FINANCIAL MATHEMATICS	<p>Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies (ACMNA132)</p> <p>ACTIVITY Real world figures In Grade 5 you were asked to ‘cost’ some of the meals that you were going to eat on camp. This year you’re going ‘bargain hunting’. After the class has settled on a menu, ask students to keep an eye out for discounts (often advertised in weekly supermarket brochures). Keep a list of items which can be bought in advance and have students alert the class to any ‘discounts’ they find when shopping with their parents / carers. Ask students to tell the class how much money you’d be saving if you bought the items now.</p>
MEASUREMENT AND GEOMETRY	SHAPE	<p>Construct simple prisms and pyramids (ACMMG140)</p> <p>ACTIVITY Creek bed sculpture competition. Prisms and Pyramids. Water and sand are wonderful elements with which to construct these shapes.</p> <p>Have students work in pairs to complete this task as one student will need to be the ‘water carrier’ at any given time.</p> <p>Tell them that they can use any ‘natural objects’ they find to assist with the formwork. (twigs, rocks, grasses etc.)</p> <p>Allocate a time frame in which to complete these constructions and have the class decide on the winners.</p>

A prism is a polyhedron consisting of two parallel, congruent faces called bases and is named by the shape of its base. It is a 3D shape which has a constant cross section - both ends of the solid are the same shape and anywhere you cut parallel to these ends gives you the same shape too. Here are some examples.



Triangular Prism: A Prism with triangular bases is a Triangular Prism.

Rectangular Prism: A Prism with rectangular bases is a Rectangular Prism.

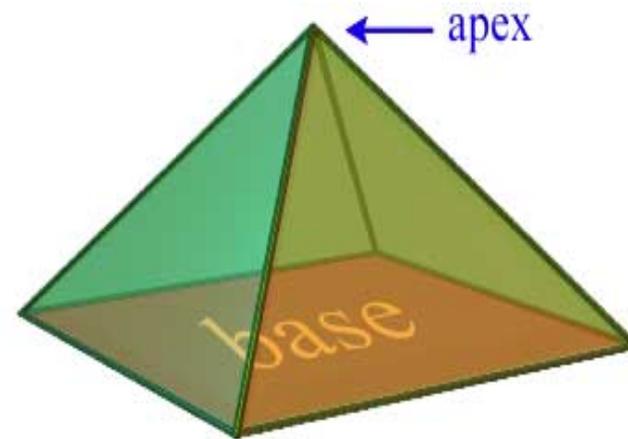
Cube: A prism with square bases is a cube. All six faces of a cube are squares.

Pentagonal Prism: A Prism with pentagonal bases is a Pentagonal Prism.

Hexagonal Prism: A Prism with hexagonal bases is a Hexagonal Prism.

A Pyramid

A pyramid has sloping sides that meet or connect at a particular point called an **apex**.

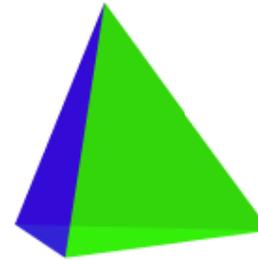


Types of Pyramids

There are many types of Pyramids and they are named after the shape of their base.

Here are a few you might like to try constructing.

**Triangular
Pyramid:**

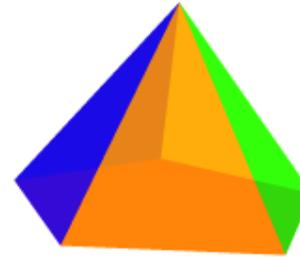


**Square
Pyramid:**



**Pentagonal
Pyramid:**





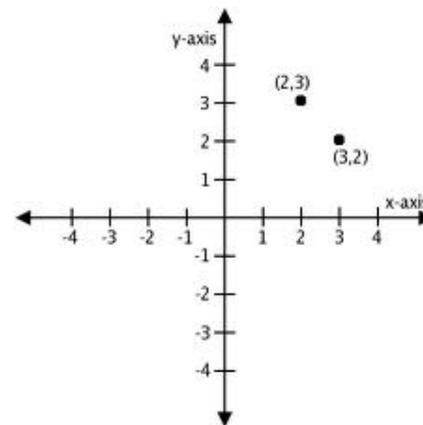
The Old Meat House here at Hamilton Downs Youth Camp is in fact a (what sort of prism?) with a (what sort of?) pyramid sitting on top. Try your hand at constructing it.

LOCATION AND TRANSFORMATION

Introduce the Cartesian coordinate system using all four quadrants (ACMMG143)

ACTIVITY

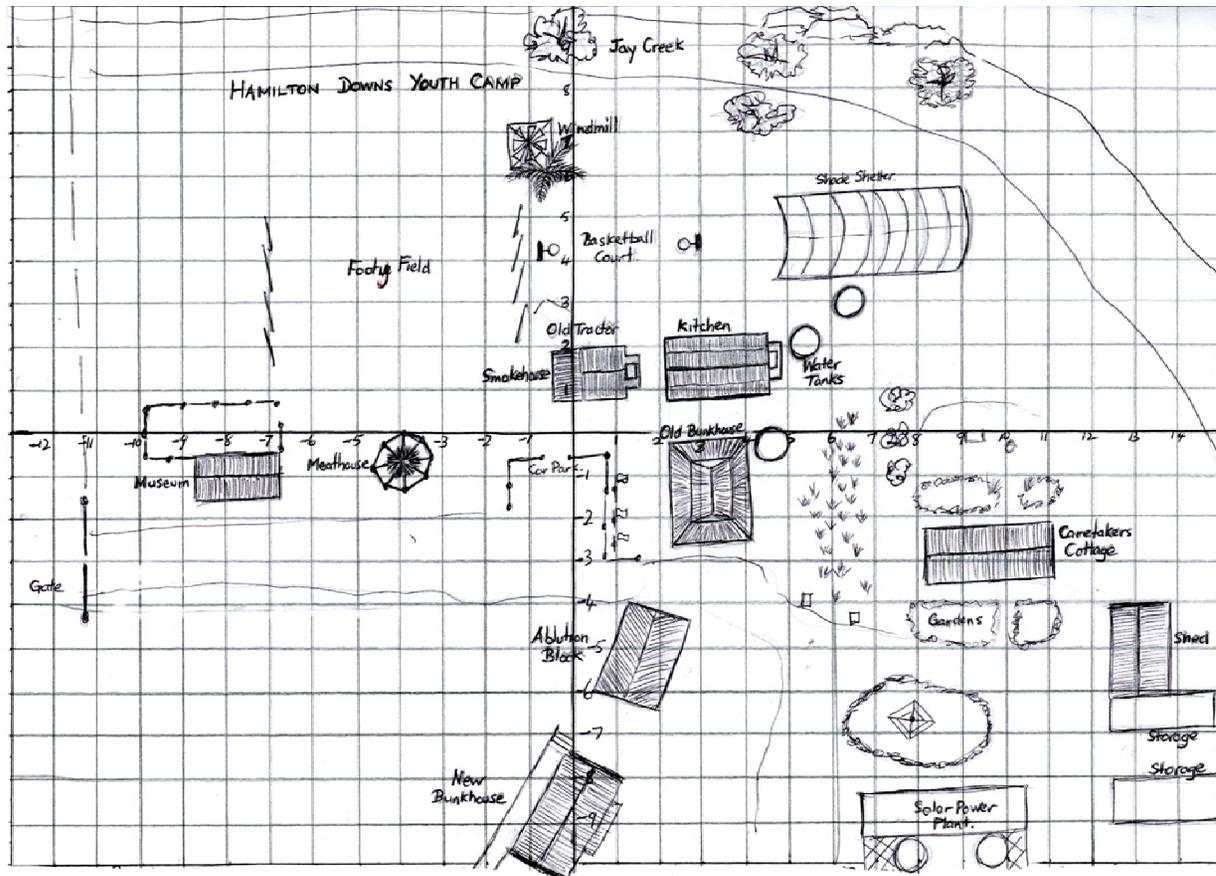
Transpose the Cartesian coordinates on to a map of Hamilton Downs Youth Camp and play lots of 'finding games'. Hide things such as messages, treats, instructions etc.

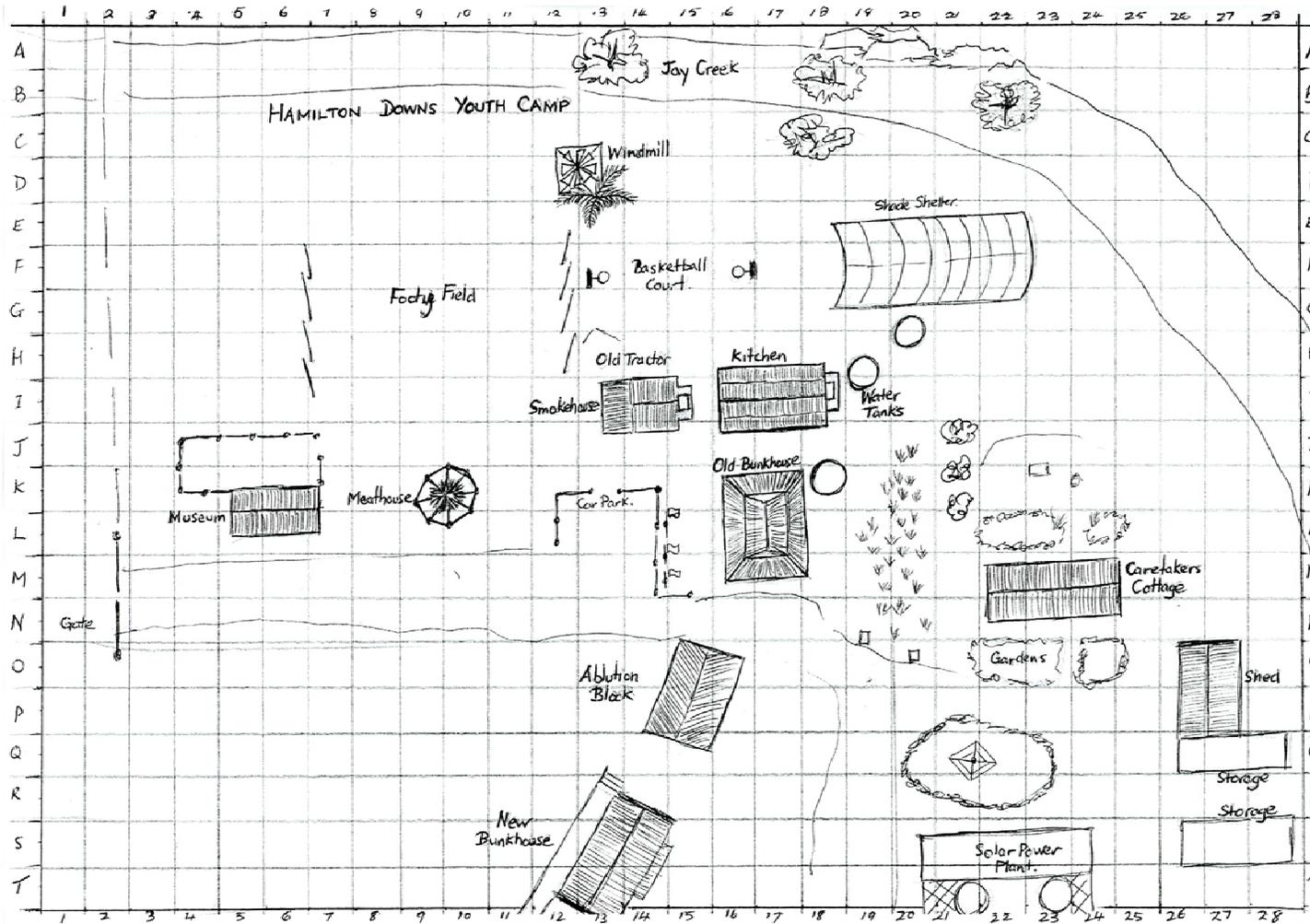


ALTERNATIVELY

Distribute **the pre prepared map** of Hamilton Downs Youth Camp and play a version of the 'finding' game described above. The pre prepared map has the Cartesian coordinates already transposed on to it.

Copies of these sketch maps are available on the Hamilton Downs Youth Camp web site,





**CLASS 3 SCIENCE FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS			ACTIVITY
SCIENCE UNDERSTANDING	BIOLOGICAL SCIENCES	Living things can be grouped on the basis of observable features and can be distinguished from non-living things	<p>ACTIVITY</p> <p>SPOT THE NON LIVING THINGS. Mark out a short walk through an area of bush around the camp. Camouflage 10-15 man-made objects along the trail. (E.g. a pen, knitting needle, can etc.) They shouldn't be hidden, just disguised in some way.</p> <p>The students walk along the path and 'jot down' or 'sketch' any man-made objects they spot. Leave about 30 seconds between the starting point for each child.</p> <p>See how many non-living things the children have spotted at the end.</p> <p>Allow a second chance for those who've missed a few. Use this exercise as a starting point for a discussion or for the formulation of lists in relation to the differences between living and non-living things. E.g. living things can grow, wither, die and regenerate via a seed of some description.</p>

EARTH AND
SPACE
SCIENCES

Earth's rotation on its axis causes regular changes including day and night.

ACTIVITIES

1

Play a game of shadow-chasey. One child is chosen as the chaser. To catch someone they must jump on their shadow and call out 'shadow'. The person caught stands with their legs wide apart and is free to run again when someone dives under their legs from behind to the front.

The children must play three times during the day, in the morning just before or after breakfast, at midday just before or after lunch and in the afternoon just before or after dinner. At the end of the last game in the evening ask what made the games different. Eg hard at midday because the shadows are directly beneath everyone making it difficult to catch people. / The shadows were cast in **that** direction (get them to point) in the morning and **in that** direction (get them to point again) in the evening. Extrapolate to notions of telling time by shadows. How might they know it is lunch time by the shadow of a tree? Do they think it would be the same in winter as it is summer? This may lead to the creation of a sun dial.

2

Bring some art material and paint or draw the landscape around where the sun rises and sets each day whilst here at Hamilton Downs. Display the art works next to each other in the bunk house.

3

Adapt the traditional game of "ccccccrusts and cccccrums" and call it "sssssun and ssssstars" Always a hit.

SCIENCE AS
HUMAN
ENDEAVOUR

NATURE AND
DEVELOPMENT
OF SCIENCE

Science involves making predictions and describing patterns and relationships

ACTIVITIES

1

At the top of the 'Drover's walk' you'll find lots of rock / stone material suitable for the building of cairns (piles of rocks).

Ask groups of students (take it in turns) to build the tallest cairn they can whilst the other students observe the process. Allocate points to students who

accurately PREDICT the piece of rock which will precipitate the FALL of the creation.

2

In teams, construct cairns based on 'stability'. This is a 'hands on' way of giving students an experience of 'patterning' rocks for a particular purpose. Take pictures of cairns (and their hopefully proud constructors) for display in the classroom.

**CLASS 4 SCIENCE FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS			ACTIVITY
SCIENCE UNDERSTANDING	BIOLOGICAL SCIENCES	Living things have life cycles (ACSSU072)	<p>Give students half an hour to find (and sketch or photograph) examples of PLANTS which are in the BIRTH PHASE (producing seeds), plants in the GROWTH PHASE (as seedlings) and plants which have reached maturation and are fruiting/blossoming PRIOR TO DYING AND BEING REBORN AS SEED.</p> <p>Once several examples have been found, have students carefully draw or paint an image of their choice.</p> <p>Display them in the bunkhouse or back in the classroom under one of three banners. SEED SEEDLING FRUITING / FLOWERING.</p> <p>You could include a pre study of the life cycle of MAMMALS. (fertilised egg, foetus, juvenile, adult).</p> <p>Ask students to try and identify WHERE in the cycle the wallabies, kangaroos etc. they are likely to spot out here are.</p> <p>This observation could also include BIRDS (egg, to chick to adult). There are numerous species of birds and their young hovering in the skies here at HDYC.</p> <p>The archetypal life cycle of the butterfly (egg, caterpillar, chrysalis, butterfly) is also a wonderful study. Out here at Hamilton Downs it's possible to observe, (among others) the Caper White butterfly during the warmer months. Students often enjoy making 'Life Cycle Wheels' out of two paper plates. (See appendix A for instructions).</p> <p>Here's a very simple poem about this life cycle that students enjoy reciting.</p> <p>Butterfly Wings.</p> <p>How would it be On a day in June To open your eyes</p>

In a dark cocoon,
And soften one end
And crawl outside,
And find you had wings
To open wide,

And find you could fly
To a bush or a tree
Or float on the air
Like a boat at sea.

How would it BE?

-Aileen Fisher

It's possible to reinforce this cycle with a close look at the Witchetty. (From egg to grub to pupa to wood moth) Students can also dig under the Witchetty bushes to see if they can find any of these creatures.

Living things,
including plants
and animals,
depend on each
other and the
environment to
survive
(ACSSU073)

HDYC is part of a working cattle station. This allows students to observe 'their meat' being grown first hand. They can see the cattle grazing on the flora of the region and visit the 'watering sites' provided by human beings.

Scat spotting.

This activity appeals to some students more than others but is very informative.

E.g. If students look closely at the cylindrical 'scats' of the echidna they reveal soil and many insect remains. What can the students find from the environment in the cube shaped scats of the Euro or the smaller, usually pointed scats of the rock wallaby?

Termite mounds are also a great example of this concept.

Termites eat wood which helps break down decaying tree trunks, branches, leaves etc. They can consume plant matter that other life forms find too tough to digest. Termites are the only species that can break down wood on a mass scale.

Termites burrow in the soil, making numerous tunnels which allow air and water to penetrate the soil. This in turn helps the plants and trees in the area to access the nutrients they need.

Students could try and build a replica of a termite mound out of wet sand in the dry creek bed. Water can be carried to the area via hoses or carted in buckets.

A line of students transferring water from one person to the next also reinforces this idea of 'mutual dependency'.

CHEMICAL SCIENCES

Natural and processed materials have a range of physical properties; These properties can influence their use (ACSSU074

Put students into groups and have them construct two very simple shelters. The first is to be made entirely from natural materials (there's lots of bark, rocks, sticks, grasses etc. around the property. The second is to be constructed from processed materials. (plastic chairs, fabric, tin etc. Discuss the differences and have them consider which materials they would choose if they were going to build their 'ideal' shelter. The students can then experiment with this picture of their 'ideal' to see if their ideas 'work'. This activity could be turned into a competition judged by the whole class.

PHYSICAL SCIENCES

Forces can be exerted by one object on another through direct

An experiential approach.

A three way tug of war is always fun, as are games of skittles and boules.

		<p>contact or from a distance (ACSSU076)</p>	<p>Small groups of students often enjoy designing and creating their own simple 'knock things over' games especially if their fellow students play them.</p> <p>How does their game work best? Why?</p> <p>The dry creek bed is a wonderful 'venue' to work in for these sorts of activities.</p>
<p>SCIENCE AS HUMAN ENDEAVOUR (Including cross curriculum priority: Sustainability)</p>	<p>USE AND INFLUENCE OF SCIENCE</p>	<p>Science knowledge helps people to understand the effect of their actions (ACSHE062)</p>	<p>We all understand the necessity for water if plants, animals and human beings are to survive and thrive.</p> <p>Have students complete a basic water audit of Hamilton Downs Youth Camp. They could work in groups and start at different points.</p> <p>Group 1 could start in the amenities block. Are all the taps turned off tightly enough to stop them leaking? Are there any leakage points?</p> <p>Is the washing machine hose attached properly etc.</p> <p>Group 2 could start INSIDE the remaining buildings, kitchen, wash up annexe etc.</p> <p>Group 3 could start OUTSIDE. The hose points, the tank taps etc.</p> <p>Get students to suggest 'water saving' tips which would be useful for people staying at HDYC. They could make simple 'Water Saving' posters and put them in the appropriate spaces.</p>

**CLASS 5 SCIENCE FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY
SCIENCE UNDERSTANDING	BIOLOGICAL SCIENCES	<p>Living things have structural features and adaptations that help them to survive in their environment (ACSSU043)</p> <p>There's much to study in relation to this focus here at Hamilton Downs Youth Camp. Here are a few of the 'living things' that inhabit this area.</p> <p>ACTIVITY Students can draw / paint / research / 'report on' or simply observe (IF YOU'RE HERE AT THE RIGHT TIME OF YEAR) some of the following:</p> <p>SPENCER'S BURROWING FROG <i>This species lives in the sandy river bed here at HDYC and is 30 to 45 mm long.</i></p> <p>You might think that the dry environment of central Australia is an unsuitable place for frogs. But, in fact, there are quite a lot of frogs which are skilled drought dodgers and happily survive in Australian desert</p> <p>HOW DO THEY ADAPT TO THEIR ENVIRONMENT?</p> <p>Burrowing Frogs have digging implements on the side of their back feet. In dry times they dig down backwards into the sand in search of a moist spot where they can sleep until heavy rain awakens them from their slumber. A short burst of activity then follows. Up to the surface they climb, feed and reproduce before the water disappears</p> <p>Spencer's Burrowing Frog is an opportunistic feeder, eating whatever</p>



insects are available. Termites are a common food item.

They don't drink water but absorb it through their skin and store it between this outer surface and their muscles. This gives them a round shape.

KANGAROOS

Kangaroos abound (no pun intended) here at Hamilton Downs Youth Camp



HOW DO THEY ADAPT TO THEIR ENVIRONMENT?

Kangaroos are herbivores and eat the grasses in the area. They hop and this saves energy. At low speeds hopping on two legs uses the same amount of energy as running on all fours. But, at high speeds, it's more efficient. The achilles tendon in each hind leg act like a spring, recycling energy with every bound.

A kangaroo saves energy every time it breathes. As it hops along, it's diaphragm moves up and down. This empties and fills the lungs automatically. A four-legged animal uses more energy the faster it goes. This isn't the case with a kangaroo. If it wants to go faster, it simply lengthens its stride, without changing its hopping frequency.

THE SILVER CASSIA

Silver Cassia (*Senna artemisioides*) is a silvery shrub 1-2m high. Silver Cassia flowers in winter with brilliant yellow flowers. Its pod is flat and oblong and grows to about 2 metres in height. It lives in desert woodland and sandy country.



high.
in
seed
and it
lives
and

HOW DOES IT ADAPT TO ITS ENVIRONMENT?

Silver Cassias are perennial (live for a number of years) plants that must endure all the worst conditions a desert can offer.

To survive in the desert you need to make sure you don't lose too much water from sweating. Plants sweat just like us. It escapes through holes, called stomates, on the bottom sides of their leaves. These stomates are there so the plant can absorb carbon dioxide from the air, when they photosynthesize, and then release the oxygen which forms in the process. To avoid losing too much water Silver Cassias have narrow leaves which mean there are few stomates through which water can escape.

DESERT BLOODWOOD TREE

Desert Bloodwood Trees (*Corymbia opaca*) have rough bark and thick blood red sap.

They grow on the plains and low rocky rises in the desert woodland, shrub land and grassland.

This tree is slow growing and long-lived. Large specimens can reach 15 metres in height but are more commonly 8 – 10 metres. The lifespan of Desert Bloodwood is unknown but likely to be several hundred years.

HOW DOES IT ADAPT TO ITS ENVIRONMENT?

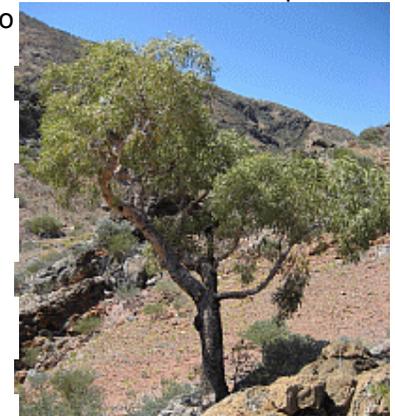
(and how do other living things adapt to it?)

They have tough leathery leaves and store water in their roots.

The Desert Bloodwood Tree produces yellow and white flowers in the cooler months (April - October). The drops of nectar in each flower provide a high energy drink for many desert animals including honeyeaters, insects and possums.

Pollen from the flower sticks to those who drink the nectar and transfer it to another flower. Seeds then develop. A hard fruit called a gumnut forms. They hang in clusters all over the tree. The gumnuts dry out and open up and the seeds fall to the ground.

When times get tough the Desert Bloodwood Tree can drop off a branch to save energy. The wound in the trunk begins to form hollows when



fungal spores grow into fungi, which feed on the wood and make it rot. Termites also feed on the soft wood while desert parrots dig the hollows deeper with their very strong hooked beaks.

Tucked away in a hollow, parrots, owls, nightjars, bats and possums can breed and shelter from the rain, wind, summer heat and winter cold. They are also less likely to be caught by a predator.

EARTH AND SPACE SCIENCES

The Earth is part of a [system](#) of planets orbiting around a star (the sun) ([ACSSU078](#))

ACTIVITY

Star gazing out here at Hamilton Downs Youth Camp is a real treat.

The sky is vast and the heavens truly resplendent at night time. Students can observe the movement of the Earth around the sun by tracking constellations over the course of a couple of hours.

There is a wonderful application available for free for any apple iPhone, iPad or lap top. It's called SkyView and allows students to accurately locate and name both planets and constellations.

Students simply point their devices in particular directions to 'watch' the movement of planets around the sun. It's particularly good for 'visual learners' as there are pictorial representations of the constellations embedded in the program.

SCIENCE AS HUMAN ENDEAVOUR

(Including cross curriculum priority: Sustainability)

NATURE AND DEVELOPMENT OF SCIENCE

Important contributions to the advancement of science have been made by people from a range of cultures ([ACSHE082](#))

The Aboriginal people of this area were among the very first people in the world to advance science in all sorts of realms. Students can experiment with some of these contributions themselves.

MAKING FIRE

Traditionally desert Aboriginal men would use a sawing motion to make fire. The base was made by cutting a wedge shape out of a soft wood. Tinder was then placed in the wedge (soft grass or kangaroo droppings). The edge of a spear thrower or boomerang was then passed in a sawing motion across the cavity until the tinder was smouldering. Once the kangaroo dung was smouldering it was dropped into a hand full of dry grass and lightly blown to ignite the flame.

These days most people start fires with lighters or matches.

Other Aboriginal groups around Australia used flints and pyrites to make fire.

ACTIVITY. Try this for yourself. Is it easy? Is it hard?

COMMUNICATION

Fire was also a form of communication, an ancient form of email.

When water supplies were running low one of the men would travel to where they knew the next reliable source of water would be. On his way he would take a firestick and burn small patches of grass as he went.

If the waterhole had sufficient water, he would build up a stockpile of grass, wood, a few green leaves and branches. When he lit it the thick smoke would signal the family that it was time to shift camp to this new location. They could then easily follow the freshly burnt out pathway to the waterhole.

ACTIVITY There are several fire pits at HDYC. These could be used to

USE AND
INFLUENCE OF
SCIENCE

Scientific understandings,
discoveries and inventions are
used to solve problems that
directly affect peoples' lives
(ACSHE083)

o

experiment with differences in 'smoke types' by burning different plant matter and wood and fanning the flames in a variety of ways. Students could work out some simple 'smoke signals' and try to COMMUNICATE with each other.

ACTIVITY

With the permission and guidance of the caretakers at Hamilton Downs Youth Camp, students could actually have a turn at manually adjusting the angle of the very large solar panels which are changed monthly to capture the most efficacious rays. It's our main power source here at HDYC and a wonderful working example of how discoveries and inventions are used to solve problems that directly affect peoples' lives. In class 6, students can actually study the 'solar energy system' as part of their exploration of electricity.

**CLASS 6 SCIENCE FOR THE NATIONAL CURRICULUM
AT
HAMILTON DOWNS YOUTH CAMP**

STRANDS		ACTIVITY
SCIENCE UNDERSTANDING	BIOLOGICAL SCIENCES	<p>The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)</p> <p>ACTIVITY Having studied some particular examples of adaptation in Class 5, students could now explore the lands around the camp and find their own examples of HOW 'living things' are affected by the PHYSICAL CONDITIONS of their environment. Put students into groups of 3 or 4 and ask them to 'imagine into' a plants / or animals / or humans potential for survival if it were not surrounded by the structures and features they see around them. (Include both natural and man-made conditions) You could make it into a competition and divide it into two or three sub sections if you wanted to: MAN MADE PHYSICAL CONDITIONS / NATURALLY OCCURRING PHYSICAL CONDITIONS OR PLANTS / ANIMALS / HUMANS. e.g. -water catching rock gardens - trellises for climbing plants - the nature of the sand / soil / rock the plants live in - the light and shade afforded by large rocks -the light and shade afforded by other plants -have the plants that have been grown in the compost fared better than those that haven't? - does the maxim of 'survival of the fittest' apply out here? If so, where do you see evidence of this? - the sinking of a bore here ay HDYC The list is endless.</p>

PHYSICAL SCIENCES

Energy from a variety of sources can be used to generate electricity (ACSSU219)

As part of a study of electricity, students could ‘get to know’ how electricity is generated here at HDYC. They could draw the stages or simply ‘HEAR’ the story as they walk around.

Electric power for Hamilton Downs Youth Camp comes from this little power station. It is in fact SOLAR POWERED (lots of sun here in Central Australia, so why not use it). As you can see the panels which capture the sun’s rays are very big indeed.

There is also a back-up generator to give us uninterrupted power, and there are batteries in the middle of these three little rooms, which store the electricity which is generated by the solar panels. (That is what batteries do) The room at the western end is simply a control room, full of panels and gauges. The two solar panels face true north to make maximum use of the sun.

LINK TO

SCIENCE AS HUMAN ENDEAVOUR (USE AND INFLUENCE OF SCIENCE)

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples’ lives (ACSHE100)

ACTIVITY

With the permission and guidance of the caretakers at Hamilton Downs Youth Camp, students could actually have a turn at manually adjusting the angle of the very large solar panels. The angle of these panels is changed each month. (Why?) It’s a wonderful working example of how discoveries and inventions are used to solve problems that directly affects people’s lives.

SCIENCE AS HUMAN ENDEAVOUR

NATURE AND DEVELOPMENT OF SCIENCE

Important contributions to the advancement of science have been made by

ACTIVITY

We looked at the contributions the Aboriginal peoples have made to the advancement of science in the areas of ‘making fire’ and ‘communication’ when you were here at HDYC in Grade 5. Now let’s explore the science of ‘tool making’ .
Aboriginal people were among the very first human beings to utilise ‘tools’ in

people from a
range of
cultures
(ACSHE099)

their daily lives.

By the end of this camp you will have attempted to make 2 or 3 tools from the following selection. You will find all you need to make them from the land surrounding the camp or whilst you are on one of the walks. You're only beginners but give it a go and with your teacher's permission, experiment with its effectiveness.

How flat is your grinding stone?

How sharp is your stone axe? What can it cut? Do you need to keep grinding it against other rocks to sharpen it?

What do we use these days to make these tasks easier?

The spear
thrower was
used by
men to
increase
the
distance
and
accuracy of
the throw.



Spears were used by men to hunt big animals like kangaroos and emus.



Shields were used by men when fighting to protect themselves.



Stone knives were made by men from quartzite (there's lots around here) and used for cutting meat and making wooden



implements.

These sticks are sharpened at one end and used by women to dig for grubs and water, for killing lizards and as a walking stick or weapon.



Flat rocks were used as a clean surface to grind up seeds for food and plant material food and medicines.



These carrying dishes were used by women to carry plant foods, grubs, honey ants & babies and to separate husks from seeds to grind up for flour.



These small bowls were used to dig with, for scooping water to drink from soaks and rock-holes.



