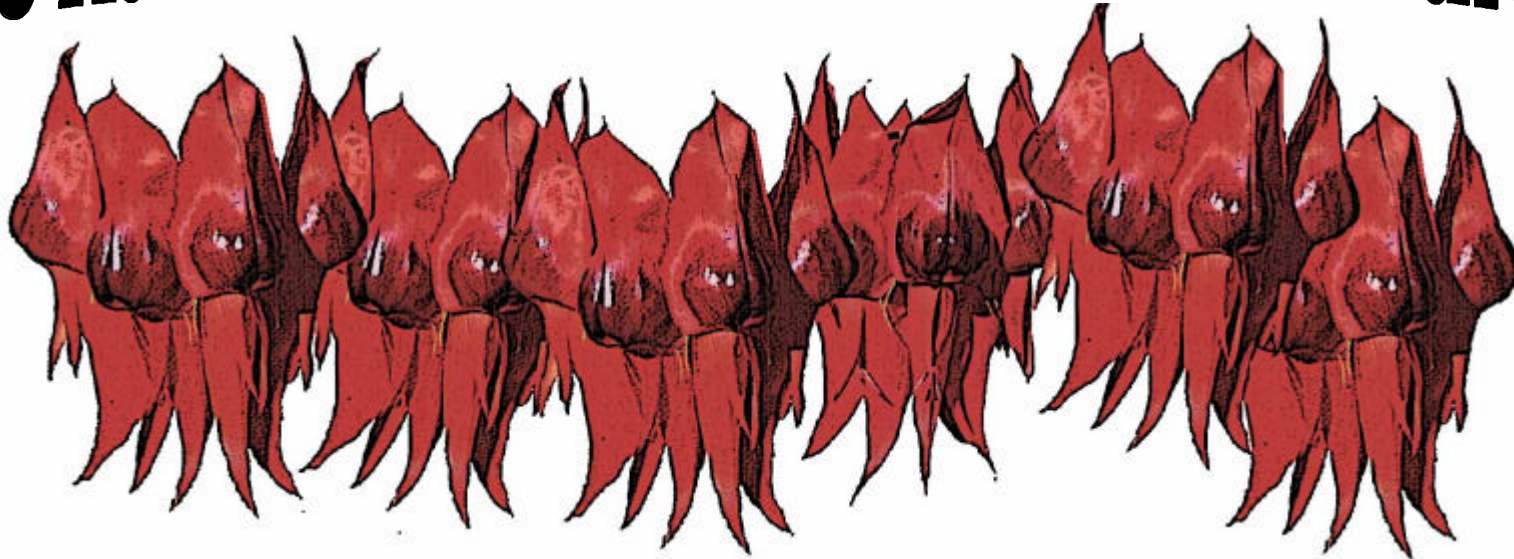


The Australian Arid Lands Botanic Garden



A teaching program that links The National Statements and Profiles and The Key Competencies to The Australian Arid Lands Botanic Garden.

Devised by The Special Interest Group in Planning and Programming,
Flinders View Primary School, Port Augusta.

1999



FLINDERS VIEW PRIMARY SCHOOL ***Special Interest Group in Planning and Programming*** **1999**

The group has devised a program that uses
The Australian Arid Lands Botanic Garden
as a resource for The Curriculum area of Society and Environment.

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FLOW CHART

THE WORK IN PROGRESSION

Choose Topic: Australian Arid Lands Botanic Garden

Identify SOCE as main relevant curriculum area

Brainstorm relevant substrands from PATHWAYS Bands A&B

Take each substrand that is suitable and write in language that is specific to the Australian Arid Lands Botanic Garden

Devise possible outcomes to suit the strands across levels 1, 2 &3

Plan programs / activities to meet Outcomes

Investigate how to link the Key Competencies to the program

Trial activities with the whole staff, recognising the obvious links to The Key Competencies.

Review and reflect on the positive / negative aspects of the trial and which activities were successful.

Check which outcomes have not yet been addressed. Delete these or devise activities to meet them.

Devise and add a set of black line masters to compliment the program

Add a list of research topics

Analyze the layout of the lesson plans and improve.

Add links to The South Australian Curriculum Standards and Accountability Framework as materials become available.

OVERVIEW

SOCIETY AND ENVIRONMENT

Band A

•Investigate, Communicate, Participate.	•Time •Continuity , Change	•Place and •Space	•Culture	•Resources	•Natural and Social •Systems
<ul style="list-style-type: none"> •Question, observe, investigate, select, record, compare, and apply. •Interpret, listen, express views. •Decisions, roles, identify problems, work with others. 	<ul style="list-style-type: none"> •Heritage •Conserving original vegetation of Australia. 	<ul style="list-style-type: none"> •<u>Local</u> natural features. •Built features. •Locations •Climate •Use of maps. •Significant places. •Changes over time. •Conservation •Roles played by local council, friends group. 	<ul style="list-style-type: none"> •Broaden cultural understanding of links Aboriginal people have with the land and all it produces. 	<ul style="list-style-type: none"> •Use of natural resources. •People —roles of people who work at AALG •Management, enterprise. •Role of Community group.. friends of AALG 	<ul style="list-style-type: none"> •People's impact on the environment. •Social..rules, laws, — that protect the environment •needs, wants. links with survival in the past and now. •Inter-relationship

Band B

•Investigate, Communicate, Participate.	•Time •Continuity , Change	•Place and •Space	•Culture	•Resources	•Natural and Social •Systems
<ul style="list-style-type: none"> •Information: identify, gather, organise. •Co-operation, presentation 	<ul style="list-style-type: none"> •Australian History • The effect of farming on natural environment. • Importance of original vegetation. 	<ul style="list-style-type: none"> •Elements, features, •Use of compass, •Maps, features, symbols. •Describe locations •Local, Australian, global. •Conservation 	<ul style="list-style-type: none"> •How cultural practices have affected the landscape. •New Age culture •Conservation 	<ul style="list-style-type: none"> •Resources - use and development. •Natural uses, manufactured uses. •Australian products. •Information as a resource. •People , work, Management Enterprise. 	<ul style="list-style-type: none"> •Cycles in Natural Systems. •Plant adaptation to environment. •Changes in land management •People's values •Laws •Government input.

Society and Environment

Outcomes

Features of Places	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> • Distinguish between Natural and man made environments at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. • Describe the location. • Develop the concept that plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN need a certain type of climate in which they will survive. • Describe distinctive local Australian landscapes. • Use simple mapping techniques • Make a simple map of a familiar environment. 	<ul style="list-style-type: none"> • Describe the physical features, climate, landforms, and vegetation of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. • Describe buildings associated with PORT AUGUSTA & THE ARID LANDS GARDEN. • Use symbols and legends to identify map features. • Describe the location of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. using major reference points. Equator, hemisphere etc.

People and Places	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> • Discuss why they enjoyed some parts of the AALBG more than others. • Identify the AALBG as a significant place in Port Augusta. • Consider that the special features of the AALBG make us treat it in a special way. 	<ul style="list-style-type: none"> • Describe how the features of the native plants allowed people to live in arid areas of Australia. • Identify how Aboriginal People may have adapted to the climatic conditions. • Investigate how the land was used before White Australians used it for pasture. • Recognise and discuss the effects farmers and graziers had on the natural environment around Port Augusta.

Care of Places	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> • Learn about the need to conserve Australian Flora and Fauna. 	<ul style="list-style-type: none"> • Investigate who is involved in creating and caring for the AALBG. • Research issues relating to the preservation of ARID LANDS areas.

OUTCOMES 1.4, 2.4, 3.4 4.4	
L	Possible Student Outcomes Students can.....
1	Draw pictures of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
1	Gather information about THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. using their senses.
1	Recognise that different parts of the world have different features than THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
2	Describe the natural and man made features of the THE AUSTRALIAN ARID LANDS BOTANIC GARDEN
2	Draw simple plans and maps of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN
2	Describe how to get to THE AUSTRALIAN ARID LANDS BOTANIC GARDEN (using land marks, features, direction)
2	Devise / use / identify symbols using a map of the AALBG.
3	Interpret a map of the AALBG using basic symbols.
3	Describe the location of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN using compass points or other major references.
3	Locate Port Augusta using a map or atlas.
4	Identifies and locates places with similar features to the AALBG.

OUTCOMES 1.5, 2.5, 3.5, 4.5	
L	Possible Student Outcomes Students can.....
1	Can draw or talk about THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
1	Identify pictures of the THE AUSTRALIAN ARID LANDS BOTANIC GARDEN following a visit.
2	Give reasons for THE AUSTRALIAN ARID LANDS BOTANIC GARDEN being a significant place.
2	Describe the facilities people use at the AALBG.
3	Describe how Arid Lands Areas affect people such as farmers, miners, residents of Pt Augusta Past & present.
3	Collect evidence to show how environments change over time.
3	Describe the importance of arid land environments to Aboriginal & Torres Strait Islanders. Past & present
3	Use a time line to indicate changes in land use over 200 years.
3	Describe how the physical features of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN may change in the future.
4	Describe how people who value conservation might effect the future of the AALBG.

OUTCOMES 1.5, 2.6, 3.6, 4.6	
L	Possible Student Outcomes Students can.....
1	Talk about ways they take care of their own garden.
1	Talk about how they would take care of the AALBG.
2	Identify how people can Co-operate to take care of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
2	Name rules that the class will follow when visiting THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
3	Explain how they were careful to look after plants when they visited THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
3	Identify people who look after THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
4	Use interviews and surveys to find a range of viewpoints relating to peoples' opinions and use of the AALBG.

Society and Environment

Use of Resources	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> Develop an understanding that the AALBG is a valuable resource for finding out about Native Plants. Learn that some resources can be renewed and some cannot. Investigate issues relating to the conservation of Native vegetation. 	<ul style="list-style-type: none"> Use the AALBG as a resource. Learn that the plants grown at the ALBG are valued by different groups of people. Learn about the location and management of the AALBG. Consider the changes that have occurred in Port Augusta and how different resources have been valued at different times.

Management and Enterprise	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> Develop an understanding that the AALBG is a valuable resource for finding out about Native Plants. Learn that some resources can be renewed and some cannot. Investigate issues relating to the conservation of Native vegetation. 	<ul style="list-style-type: none"> Use the AALBG as a resource. Learn that the plants grown at the AALBG are valued by different groups of people. Learn about the location and management of the AALBG. Consider the changes that have occurred in Port Augusta and how different resources have been valued at different times.

OUTCOMES 1.10, 2.10, 3.10, 4.10	
L	Possible Student Outcomes Students can.....
1	Investigate types of plants
1	Draw some of the plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
1	Share ideas; discuss why THE AUSTRALIAN ARID LANDS BOTANIC GARDEN is important.
2	Make a list of some of the plants that are being renewed / conserved at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
2	Interview people to find out how they look after the plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
3	Describe where THE AUSTRALIAN ARID LANDS BOTANIC GARDEN is and who manages it
3	Ask people which plants they think are the most important and why they think this.
3	Describe how the land around pt Augusta has been used over the last 200 years.
4	Describe factors that affect the use of the AALBG as a resource. (distance, lack of awareness)

OUTCOMES 1.12, 2.12, 3.12, 4.12	
L	Possible Student Outcomes Students can.....
1	Describe how people work together to save plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
1	Describe how people can use plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
2	Take part in discussions to identify why it is necessary to conserve plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
2	Explain why we pay for services at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
2	Prepare questions to ask the tour guide / others at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
3	Plan and budget for a trip to THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
3	Identify THE AUSTRALIAN ARID LANDS BOTANIC GARDEN an innovative local tourist industry.
4	Investigate how THE AUSTRALIAN ARID LANDS BOTANIC GARDEN is advertised and people's reactions to advertisements.

Society and Environment

Natural Systems	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> Understand ways in which indigenous Australians interact with the land. Examine the connection between Port Augusta and the AALBG. Describe how the AALBG supports the lives of different animals. Understand the importance of conserving the arid lands plants at the AALBG. 	<ul style="list-style-type: none"> Describe the water cycle that assists conservation at the AALBG. Understand rights and responsibilities towards the environment. Describe the way arid lands plants adapt to changes in natural systems Examine cultural impacts on ecosystems eg. the effects of farming on ecosystems. Examine people's values and their view of the importance of conserving plants at the AALBG.

Aboriginal & Islander culture Torres St.	
Band A Students will	Band B Students will
<ul style="list-style-type: none"> Explore the way Aboriginal people in the past used the land to meet their needs of food and shelter. 	<ul style="list-style-type: none"> Examine the influences of the environment on the Aboriginal culture.

OUTCOMES 1.10, 2.10, 3.10, 4.10	
L	Possible Student Outcomes Students can.....
1	Identify the elements of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN (plants, animals, landforms, people)
1	Observe, talk about how plants and animals live together and support each other in THE AUSTRALIAN ARID LANDS BOTANIC GARDEN.
1	Describe how trees and plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. support the lives of animals, birds, insects ,etc.
2	Describe the consequences for THE AUSTRALIAN ARID LANDS BOTANIC GARDEN when ONE element is removed eg. water.
2	Draw a diagram to show an example of how plants and animals at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN are linked by a food chain.
2	Include the innovative watering system, that is used in some parts of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN, in a basic water cycle.
2	Describe how plants are able to survive changes in natural systems eg. drought, bushfires.

OUTCOMES 1.12, 2.12, 3.12, 4.12	
L	Possible Student Outcomes Students can.....
1	Describe the way Aboriginal children live in today's society
1	Talk about how plants and animals at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN have been important to Aboriginal people.
2	Ask Aboriginal members of the community questions about how plants have met the needs of people.
2	Describe the land features in dreaming stories based on their experiences at the AALBG.
3	Describe the way the land has always been important to Aboriginal people, based on investigations at the AALBG.
4	Describes aspects of Australian history over past 200 years from the Australian indigenous people's view point based on investigations made at the AALBG

Links to other curriculum areas

BAND A

ENGLISH	SCIENCE	TECHNOLOGY	MATHEMATICS
Literature	Earth & Beyond	Systems	
<u>Reading</u> relate interpret predict question	<u>Environmental features</u> landforms soils <u>Changes</u> day, night seasons <u>Weather</u> <u>Sun</u> shadows time <u>Plants . Animals</u> adaptation life cycles	Role in life Identity uses energy information follow instructions describe Illustrate relationships	compare classify make draw directions simple maps plan
Mass Media	Life & Living		NUMBER
<u>purpose</u> <u>Types</u> Structures Features	needs variety life cycles relationship human responsibility		count order money estimate
Everyday Texts			
communication <u>Written</u> Organisation Features Plan <u>Oral</u> Question <u>Research</u> Select Gather Sort Organise			

BAND B

ENGLISH	SCIENCE	TECHNOLOGY	MATHEMATICS
Literature	Earth & Beyond	Systems	Space
<u>Reading</u> retell question	<u>Environmental</u> impact of humans greenhouse effect	benefits costs types promotion of ideas transmitting information how things work reason for use	compare classify recognise draw reduce enlarge directions entrepot plan execute (mapping)
<u>Editing Skills</u> spelling punctuation grammar tense	<u>Natural Processes</u> erosion weathering soil sun		
Mass Media	Life & Living		NUMBER
<u>Advertising</u> techniques comparisons	habitats interaction effects on humans adaptation		Whole numbers decimals ratio percentage calculator
Everyday Texts			
<u>Types</u> explanation information persuasion <u>Research</u> strategies features			

Linking The Australian Arid Lands Botanic Garden Program to The South Australian Curriculum Standards and Accountability Framework.

(Pertinent and relevant information : taken from the draft SACSA frameworks document)

The Essential Skills and Learnings in Society and Environment.

Identities.

Students consider material from a number of viewpoints, using inquiry, discussion, debate and analytical skills to challenge assumptions, generalisations and stereotypes.

Thinking

Students find patterns and relationships in data from a variety of sources, selecting, synthesising and reflecting on information to find creative and enterprising solutions to social, political, economic and environmental problems. They use inductive and deductive thinking strategies to investigate social, historical and environmental issues locally and globally. They use critical and creative reasoning to recognise the tentative nature of conclusions and challenge conventional practices, beliefs and values. As they explore, and evaluate alternative decisions, in social and environmental contexts, they are led to develop inclusive worldviews, and the understanding that truth is a relative notion, and that knowledge is not fixed, but can be contested.

Interdependence

By engaging in studies of the local community, other places, cultures and systems, students develop an awareness that people and societies throughout the world not only depend on others, but that they are interdependent, with decisions made in one place affecting other people and places. As they recognise that they are part of a global, network of human beings, technologies and systems, students learn to consider the consequences of their own and others' actions. In becoming equipped to identify the nature and distribution of power and wealth at all levels, students learn to understand how privilege and marginalisation are created and sustained in society. Their learning empowers them to challenge these inequities and act to address them.

Futures

In this learning area students are involved in critiquing past practices, creating new visions, discussing and evaluating possible, probable and preferred futures, and taking responsibility for actions and decisions about social and environmental issues. They develop commitment to maintaining the environment as the life source for all living things and recognise the intrinsic value of the natural environment and the importance of the future of ecological sustainability.

Communication

In using social and environmental learning contexts students read, interpret, translate and present meaning, ideas and information. They use written, visual, oral, performance, graphic, multi-media, models and maps to communicate ideas. They select, integrate and apply numerical and spatial concepts and techniques, to understand and present social and environmental data. Students form and communicate opinions and present arguments, points of view and conclusions. They debate, role-play, negotiate and use other group and interpersonal forms of communication. In these ways learners become aware of the value of the contributions they can make within their community.

Strands

The learning area of Society and Environment is described in four strands:

Time, Continuity and Change

Place, Space and Environment

Societies and Cultures

Social Systems

Time, Continuity and Change

The emphasis in this strand is on understanding and valuing of the past in peoples' lives and the development of critical thinking for the present and the future. .

Concepts of time, continuity, change, causation, heritage and disposition of empathy are fundamental. Strategies used enable students to evaluate various sources of information and use historical processes to expand their perspectives on current issues confronting society.

Place, Space and Environment

The emphasis in this strand is on understanding the interconnections within and between people and the natural and built environments in local, regional and global settings. An appreciation of spatial concepts, the distinctiveness of places and environments, changing perceptions, and the value of moving towards sustainable practices are important. There is a focus on geographical strategies and skills that lead to students investigating implications, and evaluating alternative solutions to problems examined in the natural and social world.

Societies and Cultures

The emphasis in this strand is on understanding and appreciating aspects of individual and group identity, including beliefs, values, customs and practices of different societies and cultures, both local and distant in time and place, including an explicit focus on Aboriginal cultures. Cultural cohesion, diversity and social organisations that reflect beliefs, are investigated as well as influences that bring about cultural change. Strategies that encourage engagement, participation, and empathy to see the world through others eyes, are important.

Social Systems

The emphasis in this strand is on understanding the rights and responsibilities, roles and relationships of people and groups in a variety of settings within political, legal and economic systems. Critical examination of decision-making at all levels; the use of power and control of resources to maintain or change society; and ways to participate in civil societies, including issues and practices related to work are a focus.

The core concepts of Society and Environment covered in each strand are treated in more and more complex ways, with examples moving from the familiar to unfamiliar in place and time, as the students move from the early years band through to the senior years band.

Values

Values, enduring beliefs that a particular action or existence is personally or socially preferable to any other action or existence, are a necessary component of learning in Society and Environment. Values are important as objects of study: they influence what is selected for study and are a result of study.

In Society and Environment as students consider people and their actions, they are led to investigate and analyse the influence of values and beliefs. They learn to look at their own values and actions as they analyse the values of others. In deciding on alternative actions they become aware of how values shape behaviour and consider how moral and ethical codes of conduct are determined by many influences, including family, culture and religion. As students come to question and explain a diversity of viewpoints, their own values are developed.

The values associated with democratic processes, social justice and ecological sustainability are ones promoted in Society and Environment.

Democratic processes includes values such as: commitment to individual freedom and to the rights and responsibilities of participating in a democracy: respect for law and for legitimate and just authority: respect for different choices, viewpoints and ways of living: commitment to ethical behaviour and to equitable participation in decision making. These values contribute to student's development of active citizenship.'

Social Justice includes values such as: concern for the welfare, rights and dignity of all people: empathy with peoples of different cultures and societies fairness and commitment to redressing disadvantage to change discriminatory and violent practices. These values contribute to students' understanding of what is involved in achieving a fair and just society.'

Ecological sustainability involves values such as: *environmental stewardship and conservation: a commitment to maintaining biological diversity recognition of the intrinsic value of the natural environment. These values contribute to students' understanding of how ecological sustainability can be achieved in ways that redress environmental damage caused by past and present generations and having a commitment to safeguard the inheritance of future generations.*

Place Space & Environment		
EARLY YEARS	PRIMARY YEARS	MIDDLE YEARS
Students will be provided with opportunities to.....		
Knowledge and understanding in contexts. 4.4		1.4, 2.4, 3.4
<ul style="list-style-type: none"> Recognise and describes natural and built features and systems. Describe a resource in simple terms. Show understanding of the interrelationships between natural and built aspects of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. Describe the location of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. Analyse and explain similarities and differences between plants at THE AUSTRALIAN ARID LANDS BOTANIC GARDEN and plants in other regions. 		
Skills in Contexts. 4.5		1.5, 2.5, 3.5,
<ul style="list-style-type: none"> Identify features that make this a distinctive local Australian landscape. Use symbols, maps, models and flow charts to describe the location of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. Use graphics and maps to locate the AUSTRALIAN ARID LANDS BOTANIC GARDEN. Hypothesise collects records and evaluates data from field, print, and electronic sources to analyse the significance of the AUSTRALIAN ARID LANDS BOTANIC GARDEN. Interpret information from statistics, atlases, field observations, photos etc. to explain issues regarding people's use of the AUSTRALIAN ARID LANDS BOTANIC GARDEN. 		
Values and Action in Contexts.		1.6, 2
<ul style="list-style-type: none"> Participate actively in projects to show understanding of importance and care for local places and resources. Appreciate the importance of the AUSTRALIAN ARID LANDS BOTANIC GARDEN and shows care for the environment. Identify different impacts on environment... past, present and possible future. Explore and practices ways to act for sustainable futures using knowledge gained at the AUSTRALIAN ARID LANDS BOTANIC GARDEN. Plan and acts in practical ways to care for our local environment. 		

STANDARDS
Possible Student Outcomes
Students can.....
1.4, 2.4, 3.4 4.4
<ul style="list-style-type: none"> 1- Draw pictures of THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. 1- Gather information about THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. Using their senses. 1- Recognise that different parts of the world have different features than THE AUSTRALIAN ARID LANDS BOTANIC GARDEN. 2- Discover and Describe the natural and man made features of the AUSTRALIAN ARID LANDS BOTANIC GARDEN and interrelationship between the two. 2- Describe how people use the AUSTRALIAN ARID LANDS BOTANIC GARDEN. 3- Write / draw / describe - directions to assist people to locate the AUSTRALIAN ARID LANDS BOTANIC GARDEN. 4- Research, collect information, analyse and explain the similarities / differences between the AUSTRALIAN ARID LANDS BOTANIC GARDEN and a botanic garden in another part of the world.
1.5, 2.5, 3.5, 4.5
<ul style="list-style-type: none"> 1- Draw pictures of themselves at the AUSTRALIAN ARID LANDS BOTANIC GARDEN. 1- Draw simple maps showing the location of the AUSTRALIAN ARID LANDS BOTANIC GARDEN to the school (Flinders View Primary School). 1- Identify Port Augusta, home of the AUSTRALIAN ARID LANDS BOTANIC GARDEN, on a state map. 1- Use atlases, globes, maps and words to describe the location of the 2- Devise / use / identify symbols using a map of the AALBG. 2- Estimate and calculate distances using simple scales on maps of the local community. 3- Describe the location of the AUSTRALIAN ARID LANDS BOTANIC GARDEN using compass points or other major references. 3- Locate Port Augusta using a map or atlas. 3- Use models to show how the water cycle works and the influence of location and people . 4- Identify and locates places with similar features to the AALBG. 4- Show how environments affect people's lives. 4- Measure and map the AUSTRALIAN ARID LANDS BOTANIC GARDEN for the purpose of designing a possible future addition to the site.
1.6, 2.6, 3.6, 4.6
<ul style="list-style-type: none"> 1- Identify ways they can take care of places including the AUSTRALIAN ARID LANDS BOTANIC GARDEN. 1- Plan and care for a garden of their own. 2- Explain how the AUSTRALIAN ARID LANDS BOTANIC GARDEN is important to people, animals, insects. 2- Participate in planning, caring and recording ways in which they care for the environment. 2- Compare seasonal and environmental information from children in other places through Internet, post, guest speakers, and visitors to AALBG eg. Student survey. 3- Identify an area in schoolyard that may be cultivated. Investigate species of plants that are suitable for the particular climate (eg. Arid Lands species for Flinders View) plan , plant and care for this "environment". 4- Use interviews, surveys and media to promote the benefits of the AUSTRALIAN ARID LANDS BOTANIC GARDEN to the wider community. 4- Analyse people's views of the AUSTRALIAN ARID LANDS BOTANIC GARDEN and devise an advertising campaign to overcome negative points of view.

**THE AUSTRALIAN ARID LANDS BOTANIC GARDEN –
EXAMPLES OF HOW THE KEY COMPETENCIES MAY BE USED IN SOCE -**

BAND A

KEY COMPETENCY1 Collecting, Analysing and Organising Information	KEY COMPETENCY 2 Communicating ideas and information	KEY COMPETENCY 3 Planning and Organising Activities	KEY COMPETENCY 4 Working with Others and in Teams
Students Develop the Key Competency ...	Students Develop the Key Competency by ...	Students Develop the Key Competency by ...	Students Develop the Key Competency by ...
<ul style="list-style-type: none"> • INVESTIGATING • IDENTIFYING • EXPLORING • GATHERING • RECORDING • ARRANGING • GROUPING • CLASSIFYING • CATEGORISING • REPRESENTING INFORMATION • USING CHARTS • INTERPRETION • GENERALISING • OBSERVING • DEVISING QUESTIONS TO GATHER INFORMATION • GIVING REASONS FOR ACCEPTING / REJECTING INFORMATION 	<ul style="list-style-type: none"> • CONSIDERING THE ROLE OF THE AUDIENCE • SELECTING APPROPRIATE FORMATS • DECIDING ON THE MOST APPROPRIATE WAY TO PRESENT INFORMATION • PREPARING • PRESENTING • DISPLAYING..... • DIAGRAMS TO SUPPORT • DELIVERY • RECOUNTING • RETELLING • REPORTING • DISCUSSING • EXPRESSING • TALKING ABOUT • DESCRIBING • SUGGESTING • DRAWING 	<ul style="list-style-type: none"> • MAKING DECISIONS AND EXPLORING IDEAS • IDENTIFYING OPTIONS • PREDICTING CONSEQUENCES OF ACTIONS • PLANNING AND DESIGNING • IMPLEMENTING PLANS / DESIGNS • IMPLEMENTING A SIMPLE PROCEDURE 	<ul style="list-style-type: none"> • RECOGNISING THE ADVANTAGE OF PARTICIPATORY AND COLLABORATIVE EFFORTS • SHARING IDEAS AND VALUING OTHERS • PARTICIPATE IN MAKING DECISIONS IN A GROUP. • OFFERING IDEAS AND OPINIONS • NEGOTIATING ROLES AND RESPONSIBILITIES • COOPERATING IN GROUP TASKS • COOPERATING AND COLLABORATING WITH OTHERS • WORKING WITH PEERS TO SHARE SKILLS AND KNOWLEDGE

**THE AUSTRALIAN ARID LANDS BOTANIC GARDEN
 EXAMPLES OF HOW THE KEY COMPETENCIES MAY BE USED IN SOCE -**

BAND A

KEY COMPETENCY 5 Using Mathematical Ideas and Techniques	KEY COMPETENCY 6 Solving Problems	KEY COMPETENCY 7 Using Technology	
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Students Develop the Key Competency by.....	Students Develop the Key Competency by.....	Students Develop the Key Competency by.....	
<ul style="list-style-type: none"> • ORGANISING / GROUPING DATA • INTERPRETING • PATTERNS / DATA 	<ul style="list-style-type: none"> • EXAMINING DIFFERENT OPTIONS • RECOGNISING LIMITATIONS/ ADVANTAGES • DIFFERENT STRATEGIES • CONSIDERING IMPLICATIONS • OF DIFFERENT STRATEGIES 	<ul style="list-style-type: none"> • DISCUSSING EQUIPMENT AND RULES OF USE • SELECTING/ USING EQUIPMENT FOR TASK • USING EQUIPMENT WITH CARE • USING SOFTWARE TO COMMUNICATE • DISCUSS RESULTS 	

THE AUSTRALIAN ARID LANDS BOTANIC GARDEN – EXAMPLES OF HOW THE KEY COMPETENCIES MAY BE USED IN SOCE-				BAND B
KEY COMPETENCY1 Collecting, Analysing and Organising Information	KEY COMPETENCY 2 Communicating ideas and information	KEY COMPETENCY 3 Planning and Organising Activities	KEY COMPETENCY 4 Working with Others and in Teams	

Students Develop the Key Competency by...	Students Develop the Key Competency by.....	Students Develop the Key Competency by.....	Students Develop the Key Competency by.....
<ul style="list-style-type: none"> • IDENTIFYING • INVESTIGATING • EXAMINING • DESCRIBING HOW THEY WILL COLLECT INFORMATION • LOCATING • COLLECTING EVIDENCE / INFORMATION/ • DATA/ EXAMPLES • RECORDING OBSERVATIONS • KEEPING RECORDS • SELECTING, COLLATING, CLASSIFYING, INFORMATION • REPRESENTING INFORMATION USING GRAPHS/ CHARTS/ MAPS • COMPARING • INTERPRETING • SUMMARISING • OBSERVING • INTERVIEWING • COMPARING SOURCES • GIVING REASONS FOR CHOOSING, REJECTING INFORMATION. 	<ul style="list-style-type: none"> • COMMUNICATING INFORMATION • PRESENTING • DISPLAYING • USING DIAGRAMS, MODELS, CHARTS, DIAGRAMS TO SUPPORT DELIVERY • RETELLING • REPORTING • DISCUSSING • DESCRIBING • EXPLAINING • GIVING REASONS • SUGGESTING • WRITING • SEEKING CLARIFICATION 	<ul style="list-style-type: none"> • SETTING GOALS • IDENTIFYING DECISIONS NEEDED • IDENTIFYING ALTERNATIVES AND CHOOSING SUITABLE COURSES OF ACTION • MAKING DECISIONS • PREDICTING CONSEQUENCES OF ACTIONS • DESIGNING SUITABLE STRATEGIES FOR TASKS • DESIGNING AND MAKING MODELS • DEVISING PERSONAL PLANS • IMPLEMENTING PLANS / DESIGNS • SETTING TIMELINES • EVALUATING DECISIONS AND ACHIEVEMENTS • SUGGESTING WAYS OF IMPROVING PERFORMANCE • DEVELOPING INDICATORS OF PERFORMANCE AND SUCCESS • REVIEWING PROGRESS AND NEGOTIATING ACCORDING TO NEEDS 	<ul style="list-style-type: none"> • COMMUNICATING IDEAS AND INFORMATION IN A GROUP • CONTRIBUTING TO GROUP DISCUSSIONS • NEGOTIATING • IDENTIFYING ALTERNATIVES • AGREEING ON ROLES AND RESPONSIBILITIES • SHOWING RESPECT FOR THE RIGHTS OF OTHERS IN THE GROUP • COOPERATING AND COLLABORATING WITH OTHERS • DESIGNING SUITABLE STRATEGIES FOR MAKING DECISIONS • DEVISING A PERSONAL PLAN AS A MEMBER OF A GROUP • CARRYING OUT ROLES AND RESPONSIBILITIES • SOLVING DISPUTES WITHIN GROUPS • EVALUATING GROUP DECISIONS AND ACHIEVEMENTS

**THE AUSTRALIAN ARID LANDS BOTANIC GARDEN –
EXAMPLES OF HOW THE KEY COMPETENCIES MAY BE USED IN SOCE -**

BAND B

KEY COMPETENCY 5 Using Mathematical Ideas and Techniques	KEY COMPETENCY 6 Solving Problems	KEY COMPETENCY 7 Using Technology	
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Students Develop the Key Competency by ...	Students Develop the Key Competency by ...	Students Develop the Key Competency by ...	
<ul style="list-style-type: none"> • JUDGING ACCURACY NEEDED • MEASURING • CALCULATING • ESTIMATING • COLLECTING / ORGANISING DATA • REPRESENTING DATA IN GRAPHS / TABLES • USING DATA TO CONSTRUCT EXPLANATIONS 	<ul style="list-style-type: none"> • CLARIFYING THE PROBLEM • DECIDING ON THE APPROPRIATE PROCESS • IDENTIFYING INFORMATION NEEDED • EXPLORING POSSIBLE STRATEGIES • IDENTIFYING A PLAN OF ACTION • USING AVAILABLE RESOURCES EFFECTIVELY AND RESPONSIBLY • EVALUATING THE PROCESS AND OUTCOMES • 	<ul style="list-style-type: none"> • DISCUSSING • CLARIFYING THE SPECIFIC TECHNOLOGY NEEDED FOR THE TASK • SELECTING EQUIPMENT AND MATERIALS FOR THE TASK • USING MATERIALS SAFELY • SHOW REGARD FOR OTHERS • USE SOFTWARE TO ORGANISE, MANAGE, COMMUNICATE INFORMATION • APPLYING • REFLECTING ON RESULTS 	

RESEARCH TOPICS



Ideas For Younger Students

- Identify different shaped leaves.
- Draw the shapes of clouds.
- Observe the weather.
- Discuss what happens when the wind blows.
- Look for dead and living things.
- Find people who work at The Australian Arid Lands Botanic Garden.
- Discuss the work people do.
- Observe how animals move.
- Use adjectives to describe plants and animals.
- Draw things you can hear or smell.
- Describe the signs and labels at The AALBG.
- Draw the lights and discuss interesting features.
- Investigate how plants obtain water.
- Ask questions to find out which plants are wild and which people have planted.
- Find a range of walking surfaces.
- Name the colours of flowers.
- Describe how the colours of leaves vary.
- Find natural and man made things.
- Describe the differences between car numberplates (in the car park).
- Observe different birds and describe their similarities and differences.
- Investigate animals, reptiles, spiders and insects.
- Look for signs relating to dangerous animals.
- Describe what actions should be taken if you observe a dangerous snake or spider.
- Ask someone to explain what plant is the emblem of The Australian Arid Lands Botanic Garden.
- Investigate why there are dead trees near the little pond.
- Investigate what things animals need to survive.
- Discuss the purpose of the "Donation Box"

Significant Features

<p>Before the visit..... INVESTIGATE, DISCUSS, EXAMINE..</p> <ul style="list-style-type: none"> • The kinds of features that might be found at The Australian Arid Lands Botanic Garden • Devise a list of rules to follow at the visit. • Discuss the Bingo lists included in this program. • Investigate the BOTANIC names of plants and why some plants are precious. • Investigate who might be involved in caring and supporting The Australian Arid Lands Botanic Garden and how this is done. 	<p>Equipment</p> <ul style="list-style-type: none"> • Paper • Pencils • Camera • Video • List
<p style="text-align: center;">AT The Australian Arid Lands Botanic Garden</p> <ul style="list-style-type: none"> • Explore • Follow the rules • Interview - Ask questions- collect information find out about the people behind The Australian Arid Lands Botanic Garden Take Photographs, • Video people talking about the plants and other aspects of the AALBG. • Draw pictures and diagrams. • Use the “Bingo” lists included with this program • Investigate history and plans for the future 	<p>S & P Outcomes</p> <p>3.4 3.5 3.6 4.4 4.5 4.6</p>
<p>Following the visit</p> <ul style="list-style-type: none"> • Describe how The Australian Arid Lands Botanic Garden might change in the future and explain why. • Categorise, display and discuss samples, drawings, and pictures. • Describe how the natural and man made features of the AALBG are unique. • Explain how man made aspects of the gardens assist plants to survive in an arid region. • Compare the AALBG with other parts of the world. • Design a survey to find a range of viewpoints relating to people’s opinions and use of The Garden. • Describe how people who value conservation are committed to caring for plants at The AALBG. • Create an advertising campaign to overcome any negative perceptions people have of the AALBG. 	<p>Links with Key Competencies</p> <p>K C 1 KC 4 KC 7</p>

MAPPING

Before the visit.....	Equipment
<p>INVESTIGATE, DISCUSS, EXAMINE.</p> <ul style="list-style-type: none"> • Features of maps • Keys, legends, roads, paths, • Man made features, Natural features • Distinctive Australian Landscapes • Climates, Types of plants • World locations • LOCATION OF AALBG using map/ Atlas. • Making own maps • Planning, deciding what may need to be included, materials needed etc. 	<ul style="list-style-type: none"> • Copy of map • Pencils • Rulers • Erasers • Highlighters
<p>AT _ The Australian Arid Lands Botanic Garden</p> <ul style="list-style-type: none"> • Make your own map showing your journey through the AALBG. • Use a map of the Australian Arid Lands Botanical Garden. • Locate and Mark natural and man made features. • Locate and mark bush tucker (eatable) plants. • Locate and mark interesting plants, trees, etc. 	<p>S & P Outcomes</p> <p>2.4</p> <p>3.4</p> <p>4.4</p>
<p>Following the visit</p>	<p>Links with Key Competencies</p>
<ul style="list-style-type: none"> • Use maps to explain the features of the AALBG. • Interpret a map of the AALBG using symbols to locate points of interest.. • Evaluate how informative or effective the maps are. • Discuss ways of improving maps. 	<p>KC 3</p> <p>KC 5</p> <p>KC 2:</p>

The Australian Arid Lands Botanic Garden

PLACE AND SPACE

BAND A

Investigate The Natural and Man Made Features of The AALBG

Before the visit.....	Equipment
<p>INVESTIGATE, DISCUSS, EXAMINE..</p> <ul style="list-style-type: none"> • Natural and man made things • Make a list of the types of things that may be found at the AALBG. • Discuss the Bingo lists included in this program. • Make a list of rules to follow on the visit. 	<ul style="list-style-type: none"> • Paper • Pencils • Camera • Video • List
At The Australian Arid Lands BOTANIC Garden	
<ul style="list-style-type: none"> • Explore • Ask questions • Follow the rules • Take Photographs, • Use video. • Draw pictures, diagrams. • Use the “Bingo” lists included with this program 	<p>S & P Outcomes</p> <p>1.4 1.5 1.6 2.4 2.5 2.6</p>
<p>Following the visit</p>	<p>Links with Key Competencies</p>
<ul style="list-style-type: none"> • Collate drawings, photos etc. • Categorise, display and discuss samples, drawings, pictures. • Describe the natural and man made features of the AALBG. • Discuss some of the purposes of the man made aspects of the gardens. • Give reasons why The Australian Arid Lands Botanic Garden is a special place. • Explain how people look after the AALBG • Discuss how we look after other gardens eg. the school’s 	<p>K C 1 KC 4 KC 7</p>

Investigate Natural and Social Systems

Before the visit.....	Equipment
INVESTIGATE, DISCUSS, EXAMINE.. <ul style="list-style-type: none"> • The importance of the land to Aboriginal people • The habitats of different animals. • Methods of recording information. 	<ul style="list-style-type: none"> • Paper • Pens / pencils • Camera • Video
At----The Australian Arid Lands Botanic Garden	S & P Outcomes
<ul style="list-style-type: none"> • List plants, animals, insects etc. • Find plants that are used for food or shelter • Investigate how plants and trees support the lives of creatures at the AALBG. • Record this information in some way 	1 .13 2.13 3.13
Following the visit	Links with Key Competencies
<ul style="list-style-type: none"> • Display / Explain findings using drawings, charts, written information, photos, video • Explain why the AALBG is important. • Explain why plants are important to Aboriginal people. • Describe how trees/ plants at AALBG support the lives of animals, using drawings and diagrams. • Describe what would happen if one element E.G. water was removed from the garden. 	KC 1 KC 2 KC 4: KC 7

Investigate The AALBG using the senses.

Before the visit.....	Equipment
INVESTIGATE, DISCUSS, EXAMINE.. <ul style="list-style-type: none"> • What is a GARDEN? • Where do we find gardens? • Find and display pictures of gardens. • Make a list of words to describe gardens. 	<ul style="list-style-type: none"> • Paper • Pencils • Paper bags • Camera • Audio tape
The Australian Arid Lands BOTANIC Garden	S & P Outcomes
<ul style="list-style-type: none"> • Explore the AALBG and gather information using - The senses of SIGHT, TOUCH, SMELL. HEARING, TASTE. • Collect examples if allowed. • Make a list of words that describe The Arid Lands Experience. • Draw pictures and diagrams. • Take photos and tape sounds. 	1.5 1.6
Following the visit	Links with Key Competencies
<ul style="list-style-type: none"> • Collate drawings, samples etc. • Categorise, display and discuss samples, drawings, and pictures. • Identify / Discuss/ Present photos, audio sounds. • Compare lists of words, talk about similarities and differences. 	K C 1 KC 4 KC 7

Systems

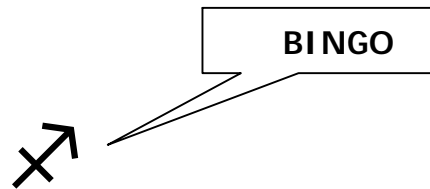
Before the visit.....	Equipment
INVESTIGATE, DISCUSS, EXAMINE.. <ul style="list-style-type: none"> • Ecosystems • Water cycle • Solar Power • Conservation • Effects of farming on ecosystems 	<ul style="list-style-type: none"> • Paper • Pens / pencils • Camera • Video
The Australian Arid Lands Botanic Garden <ul style="list-style-type: none"> • Investigate how plants and animals or insects at The Australian Arid Lands Botanic Garden are linked by a food chain. • Investigate the watering system at The Australian Arid Lands BOTANIC Garden Interview / ask questions to determine how plants are able to survive bushfires, drought, etc. 	S & P Outcomes 3.13 4.13
Following the visit <ul style="list-style-type: none"> • Draw a diagram to show an example of how plants and animals or insects at The Australian Arid Lands Botanic Garden are linked by a food chain. • Describe how farming can effect ecosystems. • Present an argument for The Australian Arid Lands Botanic Garden to – “receive increased Government Grants to provide further development.” 	Links with Key Competencies KC 1 KC 2 KC 4: KC 7

BINGO

Guides at “The Australian Arid Lands Botanic Garden” are volunteers who have a specific knowledge of plants and other features of the garden.

This list may be used when working with a guide and will give the guide an indication of the information your group is seeking.

Keep your eyes and ears open, listen carefully to the guide, tick or colour the box when you discover one of the things named in the boxes.



Call out BINGO when you find all the items.

Or see who can find the most.

a bird	a leaf	an ant	a flowering bush
a tree	long grass	a smelly plant	a spiky bush
A plant you can eat.	a yellow flower	a pink flower	a bee or a fly

BINGO

Guides at “The Australian Arid Lands Botanic Garden” are volunteers who have a specific knowledge of plants and other features of the garden.

This list may be used when working with a guide and will give the guide an indication of the information your group is seeking.



Keep your Eyes and ears open, listen carefully to the guide, tick or colour the box when you find the object Play the BINGO game.

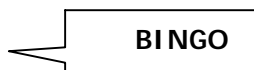
Call out BINGO when you find all the items.
Or see who can find the most in your group.

saltbush	mistletoe	Eucalypt	a flowering bush
Sturt's desert pea	Lemon grass	Curry plant	Pigface
A plant you can eat.	Eremophila	Wattle	3 different insects
different birds	A rattling seedpod	The Emu bush	Western myall 200+ years old
Poached egg daisy	Umbrella bush	Fruit salad tree	Flannel bush <i>Poisonous</i>

BINGO

Guides at “The Australian Arid Lands Botanic Garden” are volunteers who have a specific knowledge of plants and other features of the garden.

This list may be used when working with a guide and will give the guide an indication of the information your group is seeking.



Keep your Eyes and ears open, listen carefully to the guide, tick or colour the box when you find the plants to play the BINGO game.

Call out BINGO when you find all the items.
Or see who can find the most in your group.

<i>Tetragonia eremaea</i> (Native Spinach)	* <i>Mesembrianthemum</i> family of plants (Pig Face)	<i>Atriplex</i> Family of plants (Saltbush)
Sturt’s desert pea	<i>Maireana</i> family of plants (Bluebush)	<i>Calocephalus platycephalus</i> (Billy buttons)
<i>Senecio minimus</i> (Shrubby fire wheel)	<i>Convolvulus remotus</i> (Australian bindweed)	<i>Dactyloctenium radulans</i> (Button grass)
<i>Acacia oswaldii</i> (Umbrella wattle)	<i>Acacia papyrocarpa</i> (Western myall)	<i>Amyema preissii</i> (Wire leaved mistletoe)
<i>Solanum petrophilum</i> (Prickly nightshade)	* <i>Echium plantagineum</i> (Pattersons curse)	<i>Avena fatua</i> (Wild oats)

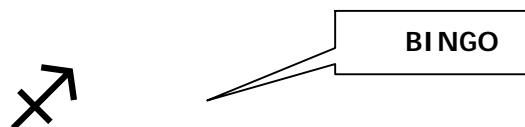
Plants that occur naturally on the site.

* Introduced Species

BINGO

Guides at “The Australian Arid Lands Botanic Garden” are volunteers who have a specific knowledge of plants and other features of the garden.

This list may be used when working with a guide and will give the guide an indication of the information your group is seeking.



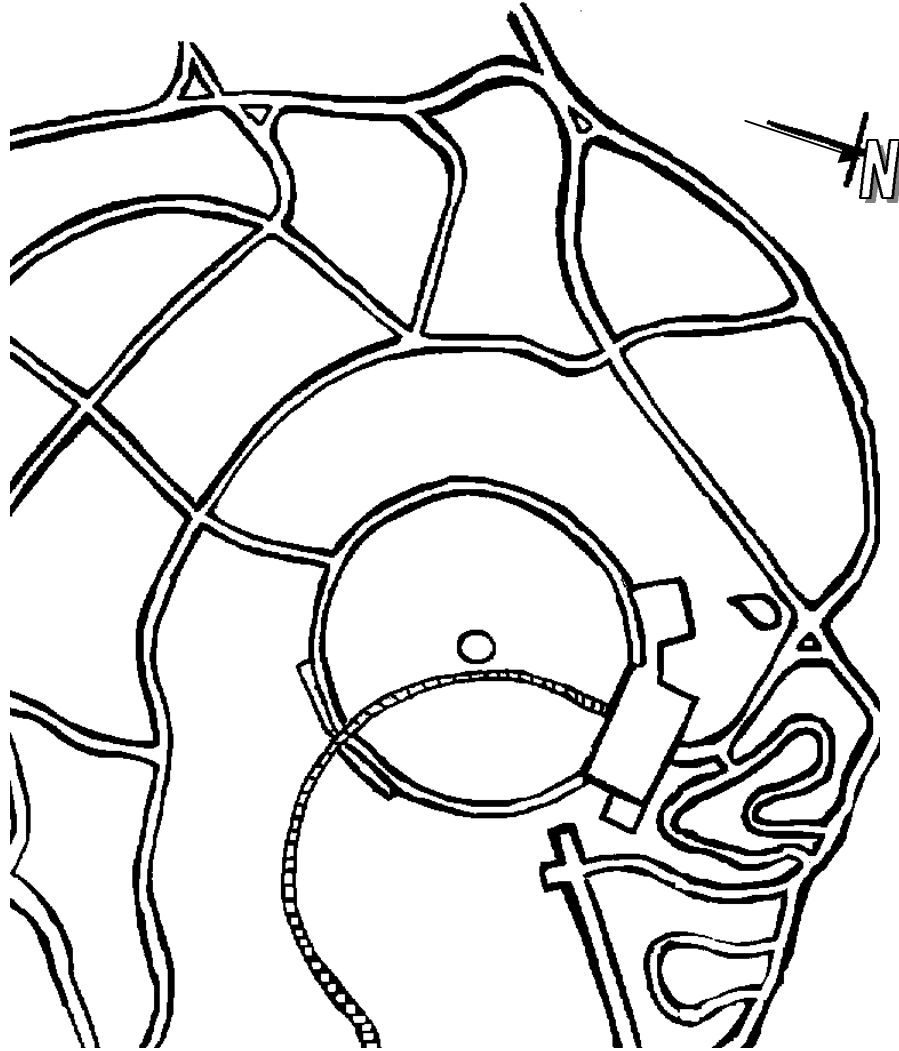
Keep your Eyes and ears open, listen carefully to the guide, tick or colour the boxes as you find the plants to play the BINGO game.

Call out BINGO when you find all the items.
Or see who can find the most in your group.

<i>Callitris glaucophylla</i> (White cyprus pine)	<i>Allocasuarina verticillata</i> (Drooping sheoak)	<i>Santalum lanceolatum</i> (Quandong) Wild peach
<i>Santalum spicatum</i> (Sandalwood)	<i>Atriplex semibaccata</i> (Berry saltbush)	<i>Capparis mitchellii</i> (Native orange)
<i>Pittosporum phylliraeoides</i> var, <i>microcarpa</i> (Native apricot)	<i>Acacia pycnantha</i> (Golden Wattle)	<i>Swainsona formosa</i> (Sturts desert pea)
<i>Acacia oswaldii</i> (Umbrella wattle)	<i>Acacia papyrocarpa</i> (Western myall)	<i>Alyogyne huegelii</i> (Lilac hibiscus)
<i>Solanum lasiophyllum</i> (Flannel Bush)	<i>Callistemon teretifolius</i> (Flinders Ranges bottlebrush)	<i>Gossypium sturtianum</i> (Sturts desert rose)

Map of The Australian Arid Lands Botanic Garden

Draw Connecting lines to label the map



- The Main Building
- The Sun Dial
- The Arch
- The Eremophila Garden
- The curved path
- The Main Entrance
- Clump of Western myall
- Blue bush
- Bottle brush bush
- Water Hole
- The Car park
- Water tanks
- Sturt's desert pea
- Saltbush