The Learning Federation is a national initiative of the States and Territories of Australia and New Zealand. Access to the digital content produced by the Learning Federation is being provided through the recently released ‘Access to Le@rn’ package which went out to all schools and preschools at the beginning of 2007. This package contains a range of resources to support the use of TLF content in the classroom as well as directions for accessing and downloading the latest content from the Department Digital Learning Bank (DLB).

- More information regarding The Le@rning Federation project can be obtained from the website www.thelearningfederation.edu.au
- Additional copies of the ‘Access to Le@rn’ package can be obtained by emailing Russell Phillipson: philipson.russell@saugov.sa.gov.au
- The DLB can be accessed at http://dlb@sa.edu.au (school username and password can be obtained from Customer Support 82041866).

Backwards Design Planning

“I have enjoyed the process and gained skills and knowledge relating to Learning Objects and how to apply them as a useful tool in my programming. I found ‘backwards planning’ made the tasks easier to coordinate and having time to look at the Learning Objects brought it all together”

Jenny Buckley
Waikerie Primary

Backwards Design Planning in Action

In this issue three teachers from Waikerie Primary show how they have used the backwards design planning model for the first time to develop units of work which incorporate the use of learning objects and digital resources from The Access to Le@rn DVD or from the Digital Learning Bank.

The Learning Federation

The Learning Federation is a national initiative of the States and Territories of Australia and New Zealand. Access to the digital content produced by the Learning Federation is being provided through the recently released ‘Access to Le@rn’ package which went out to all schools and preschools at the beginning of 2007. This package contains a range of resources to support the use of TLF content in the classroom as well as directions for accessing and downloading the latest content from the Department Digital Learning Bank (DLB).

“One starts with the end - the desired results (goals or standards) - and then derives the curriculum from the evidence of learning (performances) called for by the standard and the teaching needed to equip students to perform.” (Wiggins and McTighe, 2000, page 8).

Lorraine Fechner, the Reception/Year 1 teacher wanted her students to have an understanding of what an animal habitat is and the influences humans have on the habitats. The focus of this work provides evidence towards these SACSA Outcomes:

**Desired Results:**

**Society and Environment**
Strand: Place, Space and Environment  
Outcome: 1.6

**Science**
Strand: Life Systems  
Outcome: 1.5

**Design and Technology**
Strands: Critiquing, Designing and Making  
Outcomes: 1.1, 1.2, 1.3, 1.4

**What is Acceptable Evidence?**  
**Assessment Tasks:**

Using the Backwards Design Planning Model Lorraine identified the following as what she really wanted her students to learn. To ensure that there was higher intellectual demand Lorraine chose to use Bloom’s Taxonomy as her planning tool:

**Knowledge**
- Recognise and describe a range of animal habitats that are found at the Adelaide Zoo.
- Know the characteristics of mammals, reptiles, amphibians and birds.

**Comprehension**
- Understand what a habitat is.
- Make the links between animals and specific habitats.

**Application**
- Design and make an appropriate model of an animal enclosure that addresses issues such as shelter, need for space, food, water and recreation.

**Analysis**
- Investigate what animals live in your backyard and describe their habitat.

**Synthesis**
- Using the model you have made hypothesise what would happen if some of the variables changed eg. adding more animals, taking away shelter, changing size of enclosure.

**Evaluation**
- Consider the impact on the habitat with the introduction of a new species.

*One of the Learning Objects L699 chosen as part of the teaching and learning activities.*

**Assessment Strategies:**
Lorraine is going to use a range of assessment strategies such as observation, completion of the Learning Objects, peer evaluation, anecdotal records, photos etc to determine whether her students can show they can achieve the desired outcomes.

**Teaching and Learning Activities:**

These are a just a few of the planned activities:

**Knowledge**
- Make a clay model of your favourite animal. Draw/paint its habitat and put your animal in the habitat.
- Learning Object L896 Night of the Bilby

**Comprehension**
- Write the definition of a herbivore and a carnivore and give 3 examples of each that are found at the zoo.
- Identify 4 animals who would enjoy a plate of fruit salad and paint their pictures/make a mobile.

**Application**
- Make a diorama of a natural habitat for an animal.
- What are the features of a good zoo enclosure/habitat for animals. Prepare a list of criteria to judge an animal enclosure/habitat and put them in order of importance.

**Analysis**
- Draw/talk about the animals that live in your backyard and describe their habitat.  
- L699

**Synthesis**
- Write/act out a conversation between an elephant and a giraffe/gorilla who meet who have had some variables changed in their habitat.

**Evaluation**
- Invent a new animal and draw/make the habitat it would live in. Consider all essential features.
Belinda Krollig, the Year 3/4 teacher planned a unit of work on Antarctica. Her starting point was the following BIG IDEA:

How people are able to survive in Antarctica by having an understanding of the environment.

<table>
<thead>
<tr>
<th>SACSA OUTCOMES</th>
<th>DESIRED RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The planned teaching and learning activities provide evidence towards the following SACSA Outcomes:</td>
<td>• Develop an understanding of how food webs and food chains work.</td>
</tr>
<tr>
<td>Society and Environment</td>
<td>• Investigate the features and behaviours of Antarctic animals including life cycles.</td>
</tr>
<tr>
<td>Strand: Place, Space and Environment</td>
<td>• Identify the physical features of the Antarctic environment using different resources eg maps, videos, photos, Learning Objects.</td>
</tr>
<tr>
<td>Outcomes: 2.4 and 2.5</td>
<td>• Understand the interrelationship between the Antarctic and people.</td>
</tr>
<tr>
<td>Science</td>
<td>• Critique, design and make a form of transport that would be suitable for use on Antarctica.</td>
</tr>
<tr>
<td>Strand: Life Systems</td>
<td>WHAT IS ACCEPTABLE EVIDENCE -ASSESSMENT TASKS</td>
</tr>
<tr>
<td>Outcomes: 2.5 and 2.6</td>
<td>• Identify the typical features of the Antarctic environment.</td>
</tr>
<tr>
<td>English</td>
<td>• Show an understanding of how people are able to survive on Antarctica.</td>
</tr>
<tr>
<td>Strand: Texts and Contexts</td>
<td>a) Choose an animal from Antarctica and show which animals it feeds on as part of its food chain.</td>
</tr>
<tr>
<td>Outcomes: 2.3 and 2.4</td>
<td>b) Show how this animal becomes part of another food chain.</td>
</tr>
<tr>
<td>Design and Technology</td>
<td>• Choose an animal and report on their features and behaviours.</td>
</tr>
<tr>
<td>Strands: Critiquing, Designing and Making</td>
<td>• Critique, design and make a form of transport that would be suitable for use on Antarctica.</td>
</tr>
<tr>
<td>Outcomes: 21, 2.2, 2.3 and 2.4</td>
<td></td>
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</tbody>
</table>

TEACHING AND LEARNING ACTIVITIES

Belinda designed a number of different activities under 10 different headings:
1. Where is Antarctica?
2. What does Antarctica look like, sound like and feel like?
3. Journey to Antarctica
4. History and explorers of Antarctica
5. Food webs, chains and animals of the Antarctica
6. Penguins of the Antarctic
7. Jobs in the Antarctic
8. Transport in Antarctica
9. Rescue at Antarctica
10. Survival Pack

“ I will change my timetable so I can work intensively with this topic”. Belinda.

What does Antarctica look like, sound like and feel like?
• Learning Object The Circle—A Summer in Antarctica (L3325)
  Go to the Base Camp and enter the Writer/Photographer circle.
  Explore the visual section. Use the prepared worksheet to identify the photos.
• Next explore the audio section and identify the sounds on the prepared worksheet.
• Prepare a Y chart recording what we have learnt.

Survival Pack
• Use the data project to introduce the children to the Field Trip in the Learning Object L3325. We discuss what the expedition involves and look at the items that are available for us to take. The students then try packing. When they are happy with the final pack they have a checklist to tick off. Later share with each other what they packed and why.

“I was lucky that I found a Learning Object that would suit my chosen topic. The object presented me with a multitude of ideas. I then used the ‘backwards planning’ - what did I want them to learn, relation to SACSA, assessment tasks and lastly activities. I’m looking forward to fine tuning, collecting more resources etc. I’m feeling keen and enthusiastic at the idea of getting started.” Belinda

“ Looking forward to trialling the programme. Now I can see the value of using Learning Objects as a tool—and have thoroughly enjoyed having time to explore. The support with the programming has been fantastic—non threatening for a novice ICT user.” Lorraine
Rainforests

Big Idea: The importance of Rainforests to the world in the future.

Jenny Buckley, the Year 6/7 teacher wanted her students to have an understanding of the uniqueness of the world’s rainforests and what can be done to preserve them for future generations. Evidence collected from the planned teaching and learning activities would provide evidence towards the following SACSA Outcomes:

**Desired Results:**

- **Society and Environment**
  - **Strand:** Place, Space and Environment
  - **Outcomes:** 3.4, 3.5 and 3.6

- **Science**
  - **Strand:** Life Systems
  - **Outcome:** 3.5
  - **Learning Object L344.
  - **Welcome to the Rainforest**

**What is Acceptable Evidence?**

**Assessment Tasks**

- **Knowledge:** Identify what makes a rainforest unique.
- **Comprehension:** Select one life cycle in the rainforest and explain to the class how it works.
- **Application:** Classify the various species of animals and plants.
- **Analysis:** Explain the interdependence of plants and animals in the rainforest.
- **Synthesis:** Develop a plan to conserve rainforests at a global level.
- **Evaluation:** Compare and contrast the rainforest ecosystem with...

**Teaching and Learning Activities**

<table>
<thead>
<tr>
<th>Write a short non-fiction book suitable for a Junior Primary student. Your book should show the various species of plants and animals. (L348).</th>
<th>View and work through the Learning Object called, “Maps, Tracks and Signs” (L344 and 352). Print the screen with the walking trails and complete the maths activity.</th>
<th>Make a Power Point presentation on the effects of human activities on the rainforest ecosystem.</th>
<th>Select one life cycle evident in a rainforest. Prepare a chart to demonstrate and explain this to the class.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make a rainforest bird following the instruction sheet.</td>
<td>Examine the colours that are prominent in the rainforest. Produce a picture of your own.</td>
<td>Imagine the effect the depletion of the Amazon rainforests will have if human practices continue there. What can we do on a global level? (L3080).</td>
<td>Develop a brochure for giving to visitors to “your rainforest”. Include a name, walking trails, amenities, kiosk (produce, souvenirs, food) etc. On A4 paper produce a map to accompany your brochure. (L345)</td>
</tr>
<tr>
<td>Recognise the different species of plants and animals in a rainforest. Research how they are independent of one another. (L3079)</td>
<td>Design a crest (symbol) for a rainforest. (L353)</td>
<td>Map the areas of the rainforests of the world.</td>
<td>Contribute two items for a class display. Discuss this with your teacher.</td>
</tr>
<tr>
<td>Compare and contrast the rainforest ecosystem with one other eg. ocean, desert, wetlands, alpine, polar.</td>
<td>Select one Australian rainforest area. Put it on a map and research that local area. Read the book “Nana’s Land”.</td>
<td>Write a short narrative about the rainforest. (L344)</td>
<td>Design an ‘eco’ house suitable for sustainable living in a rainforest. Attach a list of criteria for making your choices.</td>
</tr>
</tbody>
</table>

“We should run some workshops for the rest of the staff. Keen to go in and find some learning objects in other areas”. Jenny.

Extra copies of the newsletter available from:

Jill Graham. Phone: 08 8226 4324 Email: graham.jill@saugov.sa.gov.au

Jenny searching for some Learning Objects and Digital Resources to use.