## Integrated Unit Planner

**Institution:** Waverley Meadows Primary School  
**Unit Title:** The Beach and Sea Creatures  
**Level:** 1, 2, 3, 4  
**Term:** 1  
**Year:** 2007

### Effective Teaching and Learning Principles
- Constructivist Learning
- Inquiry
- Collaboration
- Communication
- Self-Responsibility
- Human Development

### Major Topic Understandings
1. There are many different types of marine animals.  
2. They have special features that help them to survive.  
3. Marine animals move in a range of ways.  
4. Some marine animals can move in more than one way.  
5. Speed can help marine animals to escape predators.  
6. A streamlined shape assists animals to move fast.

### Focus Questions
1. What is a marine animal?  
2. What animals live in the sea?  
3. How do marine animals protect themselves?  
4. What special features do they have for survival?  
5. How do marine animals move? Can they move in different ways?  
6. How can marine animals avoid predators?  
7. How does their shape affect the way they move?

### Thinking Skills
- KWL  
- Venn diagram  
- Concept map  
- Graphics Key  
- Information Key  
- Prediction Key

### VELS Strands, Domains & Dimensions

#### Physical, Personal and Social Learning
- Health and Physical Education  
- Interpersonal Development  
- Personal Learning  
- Civics and Citizenship

#### Discipline-Based Learning
- The Arts: English and LOTE  
- The Humanities  
- Mathematics  
- Science

#### Interdisciplinary Learning
- Communication: Design, Creativity and Technology  
- Information and Communications Technology  
- Thinking

#### Interdisciplinary Learning
- ICT for visualising thinking, ICT for creating.

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**Skills:**  
- Analysing  
- Checking  
- Classifying  
- Co-operating  
- Considering options  
- Designing  
- Elaborating  
- Estimating  
- Explaining  
- Generalising  
- Hypothesising  
- Inferring  
- Justifying  
- Listening  
- Locating information  
- Making choices  
- Note-taking  
- Observing  
- Ordering Events  
- Organising  
- Performing  
- Persuading  
- Planning  
- Predicting  
- Presenting in a range of ways  
- Providing feedback  
- Questioning  
- Reading  
- Recognising bias  
- Reflecting  
- Reporting  
- Responding to other’s work  
- Restating  
- Revising  
- Seeing patterns  
- Selecting information  
- Self-assessing  
- Sharing ideas  
- Summarising  
- Synthesising  
- Testing  
- Viewing  
- Visually representing  
- Working independently  
- Working to a timeline
CURRICULUM FOCUS

KEY CONCEPTS

Time
Change
Continuity
Cause and Effect
Location / Distance / Distributions
Region / Scale / Space
Flows / Movement
Conservation
Management
Identity, Beliefs
Interrelationships / Interdependence
Cultural diversity / cohesion
Culture / Tradition
Technology
Organisations

WAYS TO PRESENT OUR LEARNING

Poster
Diorama
Board game
Collage
Email
Mobile
Story
Flow Chart
Model
Rap
Tape songs
Interview
Newspaper
Debate
Crossword
Wordsearch
Video
Play
Musical
Survey
Mimes
Organise a group to act on something

Application form
Brainstorm
Idea Booklet
Notice
Internet Site
Multimedia project
Experiment
Graph
List criteria
Advertisement
Photography
Comparisons
Oral presentation
Make signs
Construction
Puzzle
Factual booklet
Poems
Design new ideas

STRAND Discipline based Learning

DOMAIN Science

LEARNING FOCUS:
Students:
- they observe and describe phenomena
- expand their simple scientific vocabulary by using words and terms for concepts such as temperature, life cycles

STANDARDS:
Science standards begin at Level 3

STRAND Interdisciplinary Learning

DOMAIN Communication

LEARNING FOCUS:
Students:
- they practise the skills of being attentive listeners and viewers in pairs, small groups and as a whole class
- They are encouraged to use questions to clarify meaning
- students begin to distinguish between differing contexts, purposes and audiences and they learn to modify their communication
- make short oral presentations to small groups or the whole class

STANDARDS:
The standards are not introduced until Level 4

STRAND Discipline Based Learning

DOMAIN The Arts

LEARNING FOCUS:
Students
- should experience learning in Performing - Dance, Drama and Music - and Visual - Art (2-D and 3-D) and Media - disciplines and forms.
- Drama, or in combination, for example Dance and Music, or Media and Visual Arts.
- use imagination and experience as they engage in learning.
- Using ideas taken from themes, scenarios, narratives and visual stimuli, they experiment with ways of expressing and communicating ideas and feelings to particular audiences or for particular purposes
- They begin to select, arrange and make choices about ways of using elements from individual arts disciplines, for example a dance work, and from combinations of them, for example a performance of a shadow puppet play featuring puppets and a soundtrack the students have designed and created

STANDARDS:
Creating and Making
At Level 2 students create arts works focused on expressive ways of communicating. They demonstrate emerging skills in identifying, selecting and using arts elements, principles, skills, techniques and
processes in a range of arts forms. They describe and comment on characteristics of their own and others' arts works.

At level 1, students make and share performing and visual arts works that communicate observation, personal ideas, feelings and experiences. They explore and, with guidance, use a variety of arts elements (on their own or in combination), skills, techniques and processes, media, materials, equipment and technologies in a range of arts forms.

Exploring and responding
Standards for the Exploring and responding dimension are introduced at Level 3.
### ESTABLISHING THE TOPIC / TUNING IN

**Activities to establish students’ prior knowledge of the topic:**
- **KWL**
- Brainstorming in various forms – merry-go-round, see-saw, large group brainstorm about the beach and sea creatures

**Statements summarizing students’ prior knowledge:**
- KWL which showed generally very basic knowledge of sea creatures and what to find at the beach and in rockpools

### INVESTIGATING THE TOPIC

#### LEARNING EXPERIENCES

*From which students will gather new information about the topic.*

<table>
<thead>
<tr>
<th>C - Whole Class</th>
<th>G - Group</th>
<th>I - Individual</th>
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<tbody>
<tr>
<td><strong>Tasks:</strong></td>
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<td>▪ Remembering</td>
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<td>I KWL</td>
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<td>G,C Brainstorming</td>
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<td>G,C List Beach words</td>
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<td>I, G, C List Sea creatures</td>
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<td>C Singing songs</td>
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<td>▪ Understanding</td>
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<td>C Observe the sea creatures and their habitat</td>
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<td>I Explain the movement of sea creatures</td>
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<td>I, G Describe beach safety</td>
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<td>▪ Applying</td>
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<td>I Observe and record</td>
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<td>I, G Location of sea creatures</td>
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<td>I, G Collections of shells, rocks</td>
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<td>▪ Analysing</td>
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<tr>
<td>C Excursion to Balnarring – Dolphin Research Institute – observe and record sea creatures, beach environment, predators</td>
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<td>I, G Comparing the characteristics of sea animals</td>
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<td>I Venn Diagram of two sea creatures</td>
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<td>G, C Predict future of sea animals</td>
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<td>▪ Evaluating</td>
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<td>I Kidspiration – showing knowledge gained</td>
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<td>I Identify why certain creatures live where they do</td>
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<td>▪ Creating</td>
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<td>I, G, C Writing poetry, stories</td>
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<td>I, G Create own sea creature</td>
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<td>I, C Make jellyfish, mural</td>
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<td>I Poster of favourite sea creature</td>
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#### CURRICULUM FOCUS

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BRINGING IT ALL TOGETHER

Sharing & Explaining To Make Connections
How can we assist students to pull it all together? How can we see if they are making connections?
Venn Diagram – comparing two sea animals
Poster of favourite animal – research & present – ran out of time to begin this – ICT problems
Discussion after excursion to beach – real life understandings. Discussions at the rockpools at Balnarring Beach showed connections between subjects studied and real animals, features found.

Reflection & Action – Activities that give students the opportunity to reflect and act upon what they have learned. How can we empower students to act on what they have learned?
Reflecting what they learned – report writing after excursion – rockpools
Knowing the difference between a rockpool and the sea – what animals, plants are found in each/both. Kidspiration web
Sharing/teaching other students of knowledge learnt – particularly in multi aged groups.

EVALUATION

Unit:
Learning Experiences:
We offered a huge variety of experiences across several domains which enriched students. Students were engaged on hands on activities through technology, visual arts, science and communication strands. The students used Word Art, Clip Art, Kidpix and Kidspiration and questions about the sea to stimulate discussion about the differences in creatures and other things found in the sea. This gave us the understanding of their prior knowledge and their interests. This led us to modify the learning experiences to cater for their interests. eg Students wanted to learn more about specific animals rather than how they protect themselves. Through the learning experiences the students were able to work with other students they don’t normally work with. This reinforced the older students teaching a specific skill and understanding – leadership roles with younger students. The students now have a broader understanding of the characteristics of some sea creatures through the intensive learning experiences in class. Through Music experiences the students were able to interpret their own understanding of how particular animals move through various forms of music. In Design, Creativity & Technology the students were able to interpret their understanding of what the sea looks like under the water surface using a snorkel. Students used the Kidspiration program in pairs to show which animals and plants could be found in a rockpool,
Students completed their Show & Share (homework) activities which were related directly to their classroom learning and supported their understanding of the sea. Using ICT tools and programs gave us a broader knowledge of the students’ ICT skills and extended skills. Students needed to work in pairs cooperatively which continues to develop their interpersonal skills.
Prior to the excursion – Teachers engaged students in a discussion of beach safety. On the excursion the students were able to explore through a ‘hands on approach’ and discover living things in rockpools. This allowed the students to communicate prior knowledge through their experiences in the rockpools. The excursion initiated lots of conversation and questioning based on what had been learned in class. Real life experiences help students make connections.

Assessment:
For:
KWL – for understanding prior knowledge – most students had basic knowledge of the sea, this then informed our teaching direction
Brainstorming – sea creatures, beach words – assessment for their learning
As:
Characteristics of particular sea creatures, location of landforms, excursion - as they experienced
Creating own sea creature
Identifying why certain creatures live where they do
Excursion – showed students’ developed knowledge
Of:
Excursion – showed students’ understanding following their real life experience
Comparing characteristics of sea animals
Creating own sea creature
Identifying why certain creatures live where they do
KWL – at the end of the unit – rich data showing what the students have learnt compared to the start of the unit

Some assessments were both As learning and Of Learning – the excursion, creating own sea creature

There were ample resources including websites. The ABC 4 videos were excellent at their level of understanding. The DVD provided by the Excursion group (Dolphin research) was not relevant to our excursion. The excursion covered 3 coastal environments – we would have preferred more time at the rockpools and next time would request that happens. We would also factor in some free time exploring the beach.
Next term we need to look at more individual assessment – rubrics, peer assessment
We need to add in portfolio assessments at beginning of unit
Groupings – students worked alone, in pairs and in multi aged groups. There were times when it was appropriate for students to work alone or in groups depending on the activity. An improvement for next time would be to use the multi-aged groups on the excursion.

RESOURCES

Teacher Reference
- STEPS: Secrets of the Sea, Programs 1-2, Level 2, DE&T, 2000 (book, Video)
- Beach Secrets, Teaching Activities for Levels 1-2, Gould League Victoria, 2001 (internet download, www.gould.edu.au/)
- The Seashores Collection: Big Book: Seashores
  Six small books: Seagulls, Shells, Fish Swim, Tide in, Tide Out, Rock Pools, What is This?
- The Sea Year 1 – Early Theme Series
- Peter Leyden Posters & blackline masters – Life in the Sea
- Mastering Seashores
- Oceans of Fun
- See the Sea
- Sea Poetry
- The Sea – blackline masters
- The Sea And Other Water
- Exploring Oceans
- Seaweed ’98
- Into Science – The Sea
- Looking Into The Sea – blackline masters
- Creatures of the Deep
- The Ocean – an Integrated Unit

Additional Classroom Materials

Excursions
Balnarring Beach Explorers

Big Books
- Big Books – Along the Seashore (136)
  Looking at Animals in the Ocean (137)
- ABC Videos – For the Juniors
  The Sea – Life on the Seashore
  The Sea – Mangroves
  The Sea – Let’s Go to the Beach
  The Sea – Under the Sea
- Guided Reading Sets
  Sea Creatures L3
  How Many Fish? L3
  Danny Dolphin Sets L 6 – 10
  Mighty Meg at the Beach L9/10
  Penguins L13
  The Surf Carnival L18
  The Sea Dog L20
  Whales L22
  There’s a Ship Outside My Window L27

Computer Software

Websites
- www.vicnet.au/~vims (Marine Discovery Centre, Queenscliff)
- www.melbourneaquarium.com.au (Melbourne Aquarium, Melbourne)