

Mimetismo e ecosistemi: a multi-gallery experience

An Italian/Science program at Melbourne Museum



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Le attività a scuola: Pre & post-visit activities Pdf (15 – 26)

Audio: Livello 1 & 2 Mpg file

Le attività al museo Pdf file

Acknowledgments

The Italian language activities were developed by Rosaria Zarro, Co.As.It. Education Officer and Ambra Carabelli, Co.As.It. Language assistant 2006.

The photographs and drawings in these materials are courtesy of Museum Victoria unless otherwise stated. Title images: Puffer fish, photographer Mark Norman; Adult Fiery Jewel, photographer R.P. Field; Adult Short-beaked Echidna, photographer Alan Henderson.

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Teacher notes

The Italian/Science education package *Mimetismo e ecosistemi – a cross gallery experience* was developed for Years 5 -10 LOTE students. It incorporates language activities tasks for the classroom and self-guided pathways to use during an excursion to Melbourne Museum.

A staff-led session is also offered at Melbourne Museum. Conducted in Italian, this introduces the Science themes in *Mimetismo e ecosistemi*, assisting students' exploration of ecosystems and adaptations in the *Bugs Alive!*, *Forest Secrets* and *Marine life-exploring our seas* exhibitions. Booking are essential: phone 1300 130 152. Additional information for school groups visiting Melbourne Museum is available at:

<http://museumvictoria.com.au/education/>

How to use this resource

Pre- Post visit activities and information about the exhibition to stimulate students' curiosity about the visit to the museum and to assist them interpret and understand what they will experience. Some pre-visit activities are essential to provide students with background knowledge for the themes of ecosystems and adaptations—for example *Indovina l'animaletto* Speaking & Reading task with flash cards and *Identikit di un animaletto* Writing task.

Attività di ascolto: Livello 1& 2 Listening tasks and accompanying activities are based on an audio presentation by a native Italian speaker which is available on the Melbourne Museum website, and can be copied for use in the classroom.

Post visit activities include Writing Task-ICT activities using images from the various galleries. Students can give feedback about their visit to the Museum in a slide-show presentation or report.

Vocabolario contains the essential vocabulary to complete the language activities at the museum and in the classroom. Themes explored in the language activities include: i pesci, gli insetti, gli animali australiani, i habitat, la natura, l'ecologia, gli ecosistemi e i componenti, prede e predatori, l'adattamento, la difesa, le parti del corpo, le forme, le descrizioni, la classificazione, il linguaggio scientifico, gli aggettivi e i verbi.

Le attività al museo

During their visit to the museum, students will visit exhibitions in different galleries where exhibitions will provide students with context and stimulus to explore various environments, ecosystems and the species within them.

Le attività al museo are designed so that students work in small groups or with a partner, and may negotiate with their teacher the activities to complete and the galleries that they want to visit.

Teachers are advised to view all activities before selecting those most suited to their students' abilities and unit(s) of work. Activities support Levels 4, 5, 6 of the Victorian Essential Learning Standards for LOTE and are marked accordingly.

Resources include useful websites, a bibliography of references for students researching topics covered in the exhibitions and Italian language resources useful for teachers developing a complete unit of work.

Learning in museums

Research suggests that students learn more in a museum if:

- Pre-visit preparation is carried out at school;
- Students have some choice and control over their learning experiences—ensure the experience is student-centred;
- Teachers are familiar with the museum site; Museum Victoria offers free general entry for teachers;
- Co-operative small groups are used and supervising adults accompany groups at all times;
- Students are encouraged to talk and share ideas about what they are seeing, hearing and touching;
- The visit to the museum is integrated into a broader learning experience at the school level;
- Students share their findings in some sort of report or presentation back at school.

Pre-excursion checklist

Book well in advance (telephone Melbourne Museum: 1300 130 152) and check all details when you receive your booking confirmation form.

- Read and select pre visit and onsite activities.
- Assign students and supervisors to small groups where appropriate.
- Discuss the excursion activities and exhibition floor-plan with your students and with assigned supervisors prior to the excursion.
- If you are doing a self guided experience, download the appropriate excursion activities for your students from the Melbourne Museum website:
<http://melbourne.museum.vic.gov.au/education/resources.asp>
- Make enough photocopies of the selected excursion activities to provide copies for each student or group where applicable, and for all supervisors.

Victorian curricula links

This education package may be used as part of a unit of work within the framework of the Victorian Essential Learning Standards (VELS) to address learning focus statements of the strands—Physical, Personal and Social Learning, Disciplinary learning and Interdisciplinary learning.

The activities support the opportunities for students to demonstrate achievement in the domains of Interpersonal Development and Personal Learning; Science, LOTE-Italian and The Arts; Communication, Design Creativity and Technology, ICT and Thinking.

The Italian language activities are based on the science themes found within the three exhibitions, *Marine life: exploring our seas*, *Bugs Alive!*, *Southern Diversity* in the Science & Life Galleries and the Forest Gallery. It is advisable that the Italian LOTE teacher plans and liaises with the classroom teacher or Science teacher to complement cross curricular opportunities for science themes being dealt in Italian.

Domain, Dimension & Standard	Key elements of standard	Activities where elements are developed/consolidated
Interpersonal development <i>Working in teams</i>	<ul style="list-style-type: none"> Work co-operatively to allocate tasks and develop timelines. 	<ul style="list-style-type: none"> Le attività al museo
Science <i>Science knowledge and understanding</i> Level 3-4	<ul style="list-style-type: none"> Nature of the similarities between and the diversity of living things and their sustainable relationships with each other and their environment; explore food chains and energy flow along food chains in different environments. 	Science themes explored in the exhibition: <ul style="list-style-type: none"> biotic and abiotic factors affecting survival components of ecosystems characteristics of natural environments human interaction and sustenance of the environment classification/adaptation/evolution biodiversity food webs/ food chains, feeding relationships
Science <i>Science at work</i> Level 3-4	<ul style="list-style-type: none"> Gain insight into science as a human activity and the relationship b/w science, technology and society both now and in the future. 	Science at work in the exhibition: <ul style="list-style-type: none"> focus on the work of museum staff in the field of marine biology. focus on the work of museum staff in the field of entomology.

Continued...

<p>Science <i>Science knowledge and understanding</i></p> <p>Level 5</p>	<ul style="list-style-type: none"> • Explain the relationships, past and present, in living and non-living systems, in particular ecosystems, and human impact on these systems; • analyse what is needed for living things to survive, thrive or adapt, now and in the future. 	<p>Science themes explored in the exhibition:</p> <ul style="list-style-type: none"> • biotic and abiotic factors affecting survival • components of ecosystems • characteristics of natural environments • human interaction and sustenance of the environment • classification/adaptation/evolution • biodiversity • food webs/ food chains, feeding relationships • defences used by organisms
<p>Science <i>Science at work</i></p> <p>Level 5</p>	<ul style="list-style-type: none"> • Gain insight into science as a human activity and the relationship b/w science, technology and society both now and in the future. 	<p>Science at work in the exhibition:</p> <ul style="list-style-type: none"> • focus on the work of museum staff in the field of marine biology. • focus on the work of museum staff in the field of entomology.

Domain, Dimension & Standard	Key elements of standard	Activities where elements are developed/consolidated
<p>LOTE <i>Communicating in a language other than English</i></p> <p>Level 4 Pathway 1</p>	<ul style="list-style-type: none"> • Read and respond to simple and familiar text; • write in the language using modelled texts; • use basic structures to respond to simple questions; • understand new words introduced into familiar written texts, and recycle previously learnt language skills and knowledge to new contexts. 	<p>Reading: <i>Indovina l'animaletto</i></p> <p>Writing: <i>Identikit di un animaletto</i></p> <p>Speaking and Listening: <i>Attività di ascolto: Livello 1</i> <i>Indovina l'animaletto.</i></p> <p>Post Activity: Writing tasks-ICT activities</p> <p>Le attività al museo- Level 4</p>
<p>LOTE <i>Intercultural knowledge and language Awareness</i></p> <p>Level 4 Pathway 1</p>	<ul style="list-style-type: none"> • Explore a topic of interest through the language; • demonstrate understanding of cultural differences in writing conventions for specific discourse forms by producing equivalent items in another language. 	<p>Visit to the Science & Life Gallery and Forest Gallery at Melbourne Museum; participate in the staff led session <i>Mimetismo e ecosistemi.</i></p>
<p>LOTE <i>Communicating in a language other than English</i></p> <p>Level 5 Pathway 1</p>	<ul style="list-style-type: none"> • Recall most of the ideas, objects and details presented in the language; • participate effectively in role-plays and conversations on simple topics; • create simple original text for specific audience in print and electronic form; • write paragraphs and linked sequences. 	<p>Reading: <i>Indovina l'animaletto</i></p> <p>Writing: <i>Identikit di un animaletto</i></p> <p>Speaking and Listening: <i>Attività di ascolto: Livello 1 & 2</i> <i>Indovina l'animaletto.</i></p> <p>Post Activity: Writing tasks-ICT activities</p> <p>Le attività al museo- Level 4/5</p>

continued...

Domain, Dimension & Standard	Key elements of standard	Activities where elements are developed/consolidated
<p>LOTE <i>Communicating in a language other than English</i></p> <p>Level 5 Pathway 2</p>	<ul style="list-style-type: none"> • Make logical attempts to decipher meaning from written and spoken input; • communicate by referring to a range of models and responding to the teacher; • write paragraphs and linked sequences initially with a model and then independently; • read a range of short texts for meaning; • express themselves in writing through print and electronic form. 	<p>Reading: <i>Indovina l'animaletto</i></p> <p>Writing: <i>Identikit di un animaletto</i></p> <p>Speaking and Listening: <i>Attività di ascolto: Livello 1 & 2</i> <i>Indovina l'animaletto</i></p> <p>Post Activity: Writing tasks-ICT activities</p> <p>Le attività al museo- Level 4/5</p>
<p>LOTE <i>Intercultural knowledge and language Awareness</i></p> <p>Level 5 Pathway 1 & 2</p>	<ul style="list-style-type: none"> • Explore a topic of interest through the language; • demonstrate understanding of cultural differences in writing conventions for specific discourse forms by producing equivalent items in another language. 	<p>Visit to the Science & Life Gallery and Forest Gallery at Melbourne Museum; participate in the staff led session <i>Mimetismo e ecosistemi</i>.</p>
<p>LOTE <i>Communicating in a language other than English</i></p> <p>Level 6 Pathway 1</p>	<ul style="list-style-type: none"> • Identify relevant information and ideas from spoken texts; • participate spontaneously in exchanges related to specific topics; • read texts and effectively extract main ideas and detailed information for use in new contexts. 	<p>Participate in the staff led session <i>Mimetismo e ecosistemi</i>.</p> <p>Post Activity: Writing tasks-ICT activities</p> <p>Le attività al museo- Level 6</p>

Domain, Dimension & Standard	Key elements of standard	Activities where elements are developed/consolidated
<p>LOTE <i>Communicating in a language other than English</i></p> <p>Level 6 Pathway 2</p>	<ul style="list-style-type: none"> Recall most of the main ideas, objects and details presented in a topic; identify relevant information and ideas from spoken texts, they participate in interactions related to specific topics. 	<p>Participate in the staff led session <i>Mimetismo e ecosistemi</i>.</p> <p>Post Activity: Writing tasks-ICT activities</p> <p>Le attività al museo- Level 6</p>
<p>LOTE <i>Intercultural knowledge and language Awareness</i></p> <p>Level 6 Pathway 1& 2</p>	<ul style="list-style-type: none"> Interact with a variety of speakers of the language from communities, including Australia. 	<p>Visit to the Science & Life Gallery and Forest Gallery at Melbourne Museum; participate in the staff led session <i>Mimetismo e ecosistemi</i>.</p>
<p>ICT <i>ICT for creating</i></p> <p>Level 3 - 4</p>	<ul style="list-style-type: none"> Use tools and a range of data types to create information products designed to inform, entertain and educate particular audiences. 	<p>Post Activity: Writing tasks-ICT activities.</p>
<p>Thinking <i>Reasoning, processing & inquiry</i></p> <p>Level 3-5</p>	<ul style="list-style-type: none"> Demonstrate flexibility in their thinking in a range of contexts. 	<p>Exploring the exhibitions and discovering the components that best suit personal learning.</p>
<p><i>Creativity</i></p> <p>Level 3-5</p>	<ul style="list-style-type: none"> Use creative thinking strategies to generate imaginative solutions when solving problems. 	<p>Le attività al museo</p>
<p><i>Reflection, evaluation and metacognition</i></p> <p>Level 3-5</p>	<ul style="list-style-type: none"> Use a broad range of thinking processes and tools, and reflect on and evaluate their effectiveness. 	<p>Le attività al museo</p> <p>Post Activity: Writing tasks-ICT activities.</p>

Resources

The following publications are available for loan from Co.As.It Resource Centre, Level 1, 189 Faraday St Carlton VIC 3053. Membership and other details are available at <http://www.coasit.com.au/> under the Education Section.

References books

Saponaro Sabina, *Il tuo primo libro del mare*, Edizioni Larus S.p.A-Bergamo Italia 1996
Casali Anna, Pugassi Alessandra, *Mare il blu della terra*, Dami Editore, Milano 1993
Giles Jennifer, *Gli animali grandi del mare*
Albio Giovanni & Whitcombe Bobbie, *Balene e squali*, Brimax Books Ltd, 1998
Parazzoli Paola, *Nel mare*, R.C.S Libri Milan, Italy 1995
Camaschella Valeria, *Libro dell'anno De Agostini: avvenimenti del 1991*, Istituto Geografico De Agostini, Novara 1992
Conte Daniela, *Hello! LOTE: natural world Italian teacher's book*, Addison Wesley Longman, Australia 1999.
Gli animali e il loro ambiente-Laghi e Paludi- selezione dal Readers Digest, s.p.a Milano 1995
John David & Moody Richard, *L'evoluzione della vita*, Garzanti Editore s.p.a. 1982

Story books

Panini Allegra, *Giochiamo con la scienza-Ecologia*, Mondadori Editore s.p.a Milano 2004
Wolf Tony & Zanini Guiseppe, *Il libro della terra*, Dami Editore s.p.a. Firenze-Milano 2002
Panini Franco, *Tesori nascosti- il mare*, Franco Cosimo Panini Editore S.p.A- Modena 1997
Monesi Mirella, *chi cerca...trova nel mare*, Fabbri Editore S.p.A Milano 1995
Cicali Laura, *Nel mare*, Pirion Pty, Ltd Australia 2005
Rius Maria, Parramon Josep, *La vita nel mare*, Editrice La scuola, Brescia 1990
Parramon J.M, Sales G, *La mia prima visita all'acquario*, Edizioni Edison, Bologna 1991
L.Quellet, *I miei primi libri- la natura*, Edibimbi, Milano 2004
Campbell Rod, *Cose volante*, AER Edizioni, Italy 1996
Campbell Rod, *Insetti e colori*, AER Edizioni, Italy 1996
Rubel Doris, *il nostro cibo*, La coccinella, Varese 2002

Video/Film

Davia Parer, *Mari nel capricorno:uno straordinario viaggio lungo le coste dell'Australia*, Starlight Video, 1997
Alcott Todd, *Z La Formica*, Dreamwork Pictures, USA 1998
Alla scoperta del mare, DNA s.r.l Pesaro

Songs and Poems

Olinoso Dolores, *Animali amici miei* , Factory Sound Studio 1992

Italian Websites

<http://www.iii.to.cnr.it/pesci/>

Information about fish species, with English names also given

http://www.acquarioscuola.it/Progetto_Pesca.pdf

Information in Italian about environmental conservation projects in Italy.

<http://www.marevivo.it/appfondimenti/appfondimenti.php>

Includes articles about marine environmental issues in Italy.

<http://www.acquarioscuola.it/index.htm>

Education website for Acquario di Genova.

www.eniscuola.net

Energia ambiente a scuola provides games, multimedia and experiments on the themes of energy and the environment.

www.cittadellascienza.it

Website for the science museum Città della Scienza in Napoli.

Museum Victoria Websites

Bugs

<http://museumvictoria.com.au/bugs/>

Insects and other small invertebrates are among the most numerous animals on our planet. This site explores invertebrate diversity and classification, benefits and dangers. It contains information about the *Bugs Alive!* exhibition, an online game that takes you into the museum's insect and spider collection and links to other online resources.

Forest Secrets

<http://museumvictoria.com.au/forest/>

The natural and cultural heritage of Victoria's mighty Mountain Ash forests are explored through the themes of *Water, Earth, Climate, Fire, and Humans*—which are presented in the *Forest Gallery* at Melbourne Museum. Additional information includes images, *Plants, Animals* and the *Observations* you might make walking along a forest track.

Marine

<http://museumvictoria.com.au/marine/>

Online resources including an image gallery and useful web-links.

Bioinformatics

<http://museumvictoria.com.au/bioinformatics/>

Images and information about the butterfly, frog, lizard, snake and mammal species found in Victoria. Students can use the database to list the species populations for their own district.

Caught & Coloured

<http://museumvictoria.com.au/caughtandcoloured/>

Zoological illustrations explore Frederick McCoy's great project to describe the fauna from the colony of Victoria. Original drawings and manuscripts bring to life our history and the extraordinary changes already undergoing in the Victorian environments.

IMAX Theatre Melbourne

Related films include *Bugs 3D* and *Deep Sea 3D*, with teacher resources available online. For details visit: <http://www.imaxmelbourne.com.au/index.aspx?PageId=12#>

il vocabolario

gli organismi marini

l'alga
la foca
il gamberetto
il granchio
il plancton
il polpo
il riccio
la seppia
la spugna
lo squalo

marine organisms

the sea weed
the fur seal
the shrimp
the crab
the plankton
the octopus
the echinoderm
the cuttlefish
the sponge
the shark

nomi di insetti

la formica
l'insetto stecco
la lumaca
il ragno
la tarantola
lo scarabeo
la mosca
la vespa
lo scarafaggio
la farfalla
Il bruco

insect name

the ant
the stick insect
the snail
the spider
the tarantula
the beetle
the fly
the bee
the cockroach
the butterfly
the caterpillar

la natura e gli habitat

le felci
l'orchidea
la mela
l'erba
i fiori
la foresta
le alpi
Il fiume
l'acqua dolce
il formicaio
le scogliere rocciose
la flora spugnosa
il fondale sabbioso
il mare profondo
Il mare aperto

nature & habitats

the ferns
the orchid
the apple
the grass
the flowers
the forest
the alps
the river
the freshwater
the anthill
the rocky reefs
the sponge gardens
the sand plains
the deep sea
the open sea

nomi di animali

il coniglio
l'opossum
il pappagallo
la tartaruga
la volpe
l'ornitorinco

animals

the rabbit
the possum
the parrot
the turtle
the fox
the platypus

nomi di animali

l'echidna
il serpente corallo
la lucertola
l'anatra
la rana
il pesce
il pipistrello
il canguro
l'airone gigante
l'anguilla

animals

the echidna
the coral snake
the lizard
the duck
the frog
the fish
the bat
the kangaroo
the Great egret
the eel

la difesa

usa il veleno
diventa trasparente
scappa a tutta velocità
usa le spine
si mimetizza
si difende

defence

uses poison
becomes invisible
runs away quickly
uses spines
uses camouflage
defends itself

il linguaggio scientifico

la catena alimentare
l'ecosistema marino
la preda
il predatore
erbivoro
carnivoro

scientific language

the food chain
the marine ecosystem
the prey
the predator
herbivorous
carnivorous

aggettivi

caldo
freddo
umido
piovoso
secco
fresco

adjectives

hot
cold
humid
rainy
dry
fresh

i verbi e le espressioni

stanno scomparendo
rischiano di estinguersi
abbina (abbinare)
collega (collegare)
ricrea (ricreare)
segna (segnare)
individuato (individuare)
rincomponi (ricomporre)

verbs and expressions

they are disappearing
they risk becoming extinct
to link together (to link)
connect (to connect)
recreate (to recreate)
mark (to mark)
indicate (to indicate)
reassemble (to reassemble)

le stagioni

primavera
estate
autunno
inverno

seasons

spring
summer
autumn
winter

Exhibition notes

Science & Life Gallery

Bugs Alive!

Live and informative exhibits provide information on everything you ever wanted to know about bugs—from those living in our homes or gardens to the large and small found in Australia and elsewhere.

This exhibition features over 100 species of live bugs, hands-on activities and a wide variety of specimens from Museum Victoria's insect and spider collection. For more information about the live insect and collections on display, visit:

<http://museumvictoria.com.au/bugs/exhibition/>

Marine life: exploring our seas

Journey from the shoreline to the bottom of the sea, and discover the amazing marine life found beyond Victoria's coastline through underwater footage, digital animation and rare specimens.

See live sponge gardens and seagrass beds, view a swarm of spider crabs and specimens ranging from a giant squid to the fang-tooth fish. For images and more information, visit: <http://museumvictoria.com.au/marine/> .

Forest Gallery

The natural and cultural heritage of Victoria's tall timber forests, dominated by the mighty Mountain Ash *Eucalyptus regnans*, is explored in this unique indoor/outdoor space.

Insights into the interconnected and multi-layered nature of forest life are provided through the theme of changes in:

Water—shaping the landscape and creating the conditions for forest life;

Earth—the impact of continental drift on the evolution of forest life;

Climate—the seasonal changes evident in forest life;

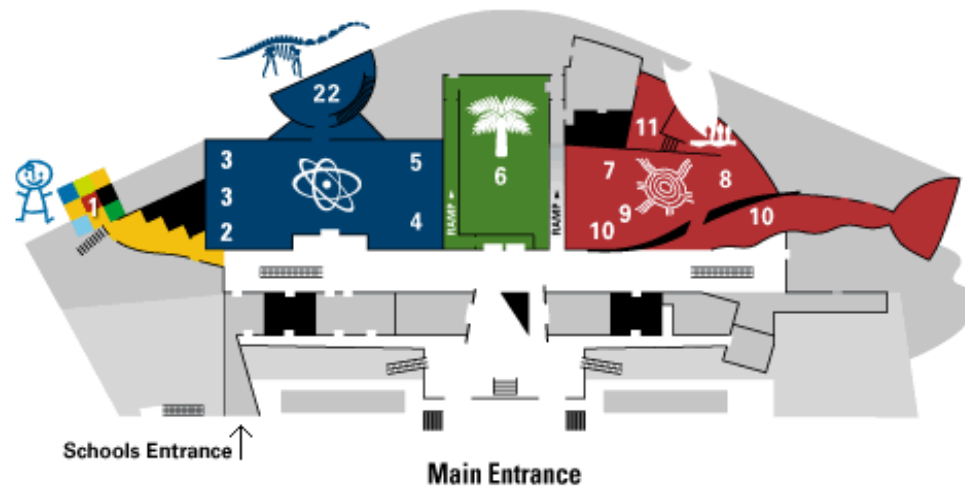
Fire—bushfires threaten people, yet regenerate forest life;

Humans—people's perceptions of the forest and the impact they have on forest life.

Visit <http://museumvictoria.com.au/forest/> for more information about the plants and animals, and observations you might make on a walk in the forest.

Gallery floorplans

Ground Level Melbourne Museum



3. Marine life: exploring our seas

6. Forest Gallery

5. Bugs Alive!