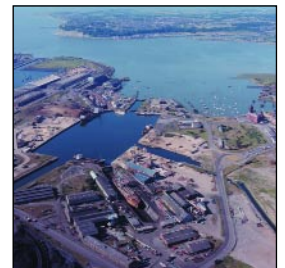
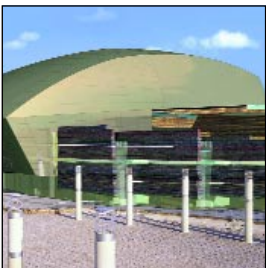


INTRODUCTION TO THE PACK

Wales Millennium Centre will be a landmark centre for the performing arts staging musicals, opera, ballet and dance. International festivals, workshops, tours and visiting art exhibitions will take place against the background of a mixed retail setting. When the Centre opens in 2004 on Cardiff Bay waterfront it will stand alongside the most culturally outstanding arts venues in Europe.

The building makes a strong cultural statement for Wales and demonstrates the nation's new-found confidence as a player in Europe and on a world stage. The design concepts are inspired by the landscape and industrial heritage of Wales – the layered strata of sea cliffs – the multi-coloured slate of North Wales - the texture and colour of steel, and the simple beauty of Welsh hardwoods. Wales Millennium Centre will be a landmark building and will become a national icon.



Aim of education pack

To utilise the exciting opportunity of the construction of the Wales Millennium Centre to develop resources to enhance educational provision in Wales and ensure that all our young people, their teachers and parents are aware of the arrival of this unique international arts centre in Cardiff Bay.

Concept

A "think tank" was organised in November 2001, involving teachers and education advisers from all over Wales with the architects and WMC personnel responsible for the construction of the Centre. The group agreed on two guiding principles:

- The product should consist of a box of exciting resources, supported by suggested activities for teachers to use with a wide range of pupils. The suggestions would be provided to stimulate further activity and not meant to be in any way prescriptive.
- Resources for education based on the construction of the Wales Millennium Centre should be cross-phase.

In addition, the resources would:

- be for use with pupils in primary and secondary schools throughout Wales
- be multidisciplinary, facilitating use in individual subjects and cross-curricular programmes
- include activities based on exciting stimulus materials
- make use of modern technology and encourage the use of ICT
- be available in both Welsh and English

Methodology

Teams of teachers and education advisers from all over Wales worked on eight individual units over a period of six months. They were supported by expert advisers from Wales Millennium Centre and its contractors.

A "resource box" was trialled, reviewed and evaluated in Summer 2002.



Contents

Units for:

- Numeracy and Mathematics
- Literacy and Language
- Visual Arts
- Geography
- History
- Design and Technology
- Science
- ICT

A CD Rom contains guidance for teachers with a range of activities for pupils relating to some or all Key Stages as indicated in Table 1 below.

| SUBJECTS | KS1 | KS2 | KS3 | KS4 | POST 16 |
|------------------------|-----|-----|-----|-----|---------|
| NUMERACY & MATHEMATICS | ✓ | ✓ | ✓ | | |
| LITERACY & LANGUAGE | ✓ | ✓ | ✓ | ✓ | |
| VISUAL ARTS | ✓ | ✓ | ✓ | ✓ | ✓ |
| GEOGRAPHY | | ✓ | ✓ | ✓ | ✓ |
| HISTORY | ✓ | ✓ | | | |
| D & T | | ✓ | ✓ | ✓ | ✓ |
| SCIENCE | ✓ | ✓ | ✓ | | |
| ICT | ✓ | ✓ | | | |

✓ Resources can be adapted to extend into these Key Stages

Resources include:

- CD Rom Teachers' guidance and activities
- Introduction to Cardiff Bay
- Video – the architect and his concept
- Samples of building material
- Photographs of places and artwork
- Maps – old and recent
- Plans
- News articles
- Census returns
- Leaflets

Some resources are unit specific; others serve more than one. It proved a challenge to manage sensibly this material so that expensive duplication would be avoided. Table 2 shows all the resources in the box and how they relate to each part of the curriculum. Where a paper-based resource is relevant to a number of curriculum areas, the (✓) symbol indicates their location. However, the full set of appropriate images are on the CD Rom in the specific unit. Thus the teacher is able to print off further resources.

- The teacher is encouraged to look through the whole pack so that inspiration can be found throughout
- The teacher may wish to laminate hard copies/downloaded CD Rom images for durability

Curriculum-based suggested activities

For each area of the curriculum there are suggested activities for use of the materials. A summary is on the Overview sheet and each activity gives learning objectives, key words, cross-curricular links and the area of the National Curriculum being covered. The teacher will need to print the suggested activities from the CD Rom – choose Welsh or English and then enter the 'projects' folder. If there are any technical difficulties, contact WMC on address below.



Table 2 indicates which resources support which units and where hard copies are located in the Resource Case

| RESOURCES UNITS | CD ROM | VIDEO | SAMPLES OF BUILDING MATERIALS | NEWSLETTER - STAGE FOR A NATION | MOOD BOARD OF DESIGNERS | A3 MAP OF WALES | MAPS OF WALES, EUROPE AND WORLD | MAPS AND PLANS OF CARDIFF BAY | PLANS OF WMC | PHOTOS OF FAMOUS BUILDINGS AROUND THE WORLD | PHOTOS OF WELSH LANDMARKS | POSTCARDS OF ARTWORK | INSCRIPTION | OLD/NEW PHOTOS OF CARDIFF BAY | AERIAL PHOTOS OF BAY | CENSUS RETURNS 1881 | HISTORY TIMELINE FOR CARDIFF BAY | CARDIFF BAY TRAIL LEAFLET | NEWSPAPER ARTICLES |
|---------------------|------------------------|-------|-------------------------------|---------------------------------|-------------------------|-----------------|---------------------------------|-------------------------------|--------------|---|---------------------------|----------------------|-------------|-------------------------------|----------------------|---------------------|----------------------------------|---------------------------|--------------------|
| | NUMERACY & MATHEMATICS | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ⊗ | ⊗ | | | | ✓ | ✓ | | | | |
| LITERACY & LANGUAGE | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | | ⊗ | ⊗ | ✓ | ⊗ | | ⊗ | | | | ✓ |
| VISUAL ARTS | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ⊗ | | | | | | ✓ | |
| GEOGRAPHY | ✓ | ✓ | ✓ | ✓ | | ⊗ | ⊗ | ⊗ | | ✓ | ✓ | | | ⊗ | ⊗ | ✓ | | ✓ | ✓ |
| HISTORY | ✓ | ✓ | | | | | | ✓ | | | | | | ⊗ | ✓ | ⊗ | ⊗ | ✓ | |
| DESIGN & TECHNOLOGY | ✓ | ✓ | ✓ | ✓ | ⊗ | | | | ✓ | | | | ⊗ | | | | | | |
| SCIENCE | ✓ | ✓ | ✓ | | | ✓ | | | | ✓ | ✓ | | | | | | | | |
| ICT | ✓ | ✓ | | ✓ | | | | | | | | | | | | | | | |

Use of ICT

- All notes for teachers and suggested subject activities are provided on a **CD Rom**
- Images of all **paper resources** (maps, photos, articles etc) are provided with relevant units on the disc. Hard copies are located in prime user units in the Resource Case (see Table 2)
- **Powerpoint** audio visual presentation of Cardiff Bay “Follow me to” is provided on the CD Rom
- WMC **website** www.wmc.org.uk is a source of further information and an opportunity to promote/publicise/exhibit related activities completed in school
- WMC website has an “**Ask the Expert**” section and a **webcam** which can be used for relevant activities
- During 2003, the suggested activities and many of the resources will be available in **PDF format** on the WMC website in password protected format

Whiteboards

Use the CD Rom with your whiteboard - it is an excellent resource for this purpose. The images from the Visual Arts Unit will particularly benefit from whole-classroom use.

Visits

The pack is designed to be free standing and its educational value is not dependent on a visit to the site. There is no doubt, however, that a visit to Wales Millennium Centre and Cardiff Bay would enhance children’s experience. There is a Viewing Gallery overlooking the building site which can be used as a base for a visit. Due to inherent risk levels, no access to the construction site is possible. At time of printing, it cannot be confirmed that the Viewing Gallery will be available beyond June 2003 as the contractors may have to reduce provision by the site. If you are interested in arranging a visit, contact Ruth Garnault at the address below.



ACKNOWLEDGEMENTS

Wales Millennium Centre would like to thank:

• **Teachers and Advisers who have worked on these materials:**

| | | |
|---------------------|-------------------|-----------------------|
| Blaenau Gwent | Bev Bannon | Literature & language |
| Blaenau Gwent | Emma Vaughan | ICT |
| Cardiff | Carol Williams | D&T |
| Cardiff | Alana Dallimore | Visual Art |
| Cardiff | Paul King | D&T |
| Cardiff | Julie Ashfield | Visual art |
| Cardiff | Haydn Pritchard | D&T |
| Carmarthenshire | Tom Basher | Geography |
| Carmarthenshire | Alan Walters | Science |
| Ceredigion | Aneurin Thomas | Science |
| Denbighshire | Aloma Williams | Visual art |
| Flintshire | Margaret Evans | History |
| Merthyr | Sean Lawrence | Geography |
| Neath & Port Talbot | Kathleen Davies | Literature & language |
| Neath & Port Talbot | Claire Pudner | Numeracy |
| Pembrokeshire | Eva John | Literature & language |
| Pembrokeshire | Catrin Griffiths | Literature & language |
| Pembrokeshire | Barbara Thorne | Numeracy |
| Pembrokeshire | Mark Bartlett | Numeracy |
| Powys | Robert Downing | ICT |
| Rhondda Cynon Taff | Tracey Stephens | Literature & language |
| Swansea | Carolyn Davies | Visual art |
| Swansea | Marilyn Griffiths | Visual art |
| Swansea | Margaret James | Visual art |
| Swansea | Dawn Phillips | Visual art |
| Swansea | Sheila McLaren | Visual art |
| Torfaen | Gwen Garrero | Cwricwlwm cymreig |
| Torfaen | Barbara Scott | Literature & language |
| Wrexham | Karen Morris | History |

• **Schools which trialled the packs during Summer 2002:**

| | |
|--------------------|------------------------------------|
| Caerphilly | Ysgol Gymraeg Bro Allta |
| Cardiff | Ysgol Gyfun Gymraeg Glantaf |
| | Bishop of Llandaff High School |
| | Michaelstone Community College |
| | Hywel Dda Junior School |
| Carmarthen | Coed Cae Comprehensive School |
| | Richmond Park Primary School |
| | Amman Valley School |
| Denbighshire | Ysgol Bryn Hedydd |
| Flintshire | Wood Memorial Primary School |
| | Connah's Quay High School |
| Merthyr Tydfil | Pantysgallog Primary School |
| Monmouthshire | Goytre Fawr Primary School |
| Neath Port Talbot | Blaenhonndan Primary School |
| | Rhos Primary School |
| Newport | Clytha Primary School |
| Powys | Bronllys Primary School |
| Rhondda Cynon Taff | Hirwaun Primary School |
| | Aberdare Boys Comprehensive School |
| Swansea | Bishopston Comprehensive School |
| | Whitestone Primary School |
| Torfaen | West Monmouth Comprehensive School |
| Wrexham | Ysgol y Ponciau |

• **The Unitary Education Authorities in Wales for their support for the above teachers and advisers and their assistance with dissemination**

• **Additional advice for "Think Tank"**

| | |
|--------------------------|-------------------|
| Bridgend/Merthyr/Rhondda | Ivan Davies |
| Cardiff | Robert Cornelius |
| Cardiff | Paul Hammacott |
| Caerphilly | Greg Owens |
| Caerphilly | Brett Pugh |
| Flintshire | Audrey Desborough |
| Gwynedd and Anglesey | Hugh Gwynne |

• **For development and trial of original project during 2001 and contribution to Think Tank:**

Phil Williams, Head Teacher Castle Caereinion Primary
Peter Jessop, Design Technology teacher, Newtown Secondary School

• **For input into Think Tank and development of materials**

Janet Jones, Project Consultant
Percy Thomas, Architects, Planners, Designers
Construction Industry Training Board: Gareth Williams, Roger Silvester,
Bernie Mark, Frank Geoghegan
Jane Sullivan, Cardiff Harbour Authority
Tony Lewis, Butetown History and Art Centre
Joe Cartright, Citex
Roger Spence, WMC Project Director
Simon Robinson, WMC IT Manager
Slate: Sir Alfred McAlpine
Wood: Wood B Products, Bridgend; Coed Cymru
Steel: Rimex Metals; Avesta Polant, Panteg; Concept Balustrades; NG Bailey
Glass: Architectural Glass Department, Swansea Institute of Higher Education
Brick: Manor Brick
Martyn Joseph for use of "Cardiff Bay" from "Thunder & Rainbows."
Lisa Mead, Ty Gwyn Teachers Centre, for provision of photos and illustrations
Wales Tourist Board: photographic library
Western Mail & Echo for photographs
Dan O'Neill – photographs and extracts from "Tiger Bay and the Docks"
Cardiff Central Library for maps, newspaper articles of the Bay and census returns
Ordnance Survey and A-Z for provision of map extracts
Tate Enterprises
Crafts Council
Wales Science Year – Dr Sue Cavell
Lorraine Barrett AM and her staff for hosting the Think Tank at the Welsh Assembly Government

In particular, Jonathan Adams, Concept Architect PTP, for enthusing the participants and providing a continuous source of information, advice and ideas.

Pack designed by Isabel Butcher (designis)

The Furnace of Inspiration is a Wales Millennium Centre artsExplorer project

For more information on any aspect of this pack, please contact:

Ruth Garnault

artsExplorer Director

Wales Millennium Centre, Bay Chambers, West Bute St, CARDIFF CF10 5GG

Phone: 029 2040 2000 Fax: 029 2040 2000

Wales Millennium Centre principle funders:



Llywodraeth Cynulliad Cymru
Welsh Assembly Government