METADATA GUIDELINES
for Digital Content

VERSION: 2.2
DATE: 16 FEBRUARY 2009
# Table of Contents

1 **INTRODUCTION** ............................................................................................................. 1

2 **DESCRIPTION OF METADATA ELEMENTS** ................................................................. 1

   2.1 **Title** ........................................................................................................................ 2
   2.2 **General identifier** .................................................................................................. 5
   2.3 **Description** ............................................................................................................. 7
   2.4 **Contribute (Role, Entity and Date)** ..................................................................... 10
   2.5 **Topics** .................................................................................................................. 13
   2.6 **Keywords** ............................................................................................................. 13
   2.7 **Learning area** ....................................................................................................... 15
   2.8 **Strand** .................................................................................................................. 16
   2.9 **Key learning objective** ....................................................................................... 17
   2.10 **Educational value** .............................................................................................. 19
   2.11 **Audience type** ................................................................................................... 22
   2.12 **Audience sector** ................................................................................................. 22
   2.13 **Student activity** .................................................................................................. 23
   2.14 **User level** ............................................................................................................ 24
   2.15 **Spatial coverage** ................................................................................................. 24
   2.16 **Temporal coverage** ............................................................................................. 28
   2.17 **Learning resource type** ..................................................................................... 29
   2.18 **Relation** ............................................................................................................... 30
   2.19 **Version notes** ...................................................................................................... 36
   2.20 **Technical requirement** ....................................................................................... 39
   2.21 **Other platform requirements** ............................................................................ 40
   2.22 **Access profile** ..................................................................................................... 42
   2.23 **Rights** .................................................................................................................. 43
   2.24 **Content/Concept** ................................................................................................. 44
   2.25 **Learning design** .................................................................................................. 45
   2.26 **Skills/Process** ..................................................................................................... 46

3 **EXAMPLES** ................................................................................................................... 47

   L2531 Air pressure ................................................................. 47
   L5861 Scatter plots: foot length and hand span ............................................................ 51
   L6559 Exploring the Pythagorean theorem ................................................................. 54
   L2711 Going to school: two cities of the world ............................................................ 57
   R6025 Filming a 'hero' shot on location, 2004 ............................................................ 59
   R6414 ‘Faces of Australia’, 1968 - part 29 of 34 ........................................................... 62
   R4154 Excerpt from an interview with Hazel Craig, 1997 - part 3 of 3 ....................... 66
1 Introduction

Metadata is data that describes the characteristics of an item. Metadata is fundamental to the discovery of digital content. The creation of accurate metadata by a publisher enables that metadata to be reused downstream in learning management systems.

This document has been developed for use by those involved in creating and reviewing metadata for items published by The Le@rning Federation (TLF). It provides general principles and specific guidelines that should be applied to the creation and review of metadata.

Subject matter experts write the metadata for digital content. TLF quality assurance (QA) staff then review the metadata to ensure it meets the guidelines set out in this document. The metadata for each item undergoes a series of QA reviews before it is published.

The examples within this document illustrate typical metadata values. For more detailed specifications, refer to the document entitled ANZ-LOM: Metadata Application Profile and to related vocabularies.

2 Description of metadata elements

This section provides key information about each metadata element, as well as some examples and guidelines.

The 'Identifier' shown in some of the tables in this section refers to element structures defined in IEEE LOM metadata standard. The 'Authority' is the metadata standard on which specifications are based.

Note that not all metadata elements are relevant to all content items. The 'Obligation' information in each table indicates which types of content items an element applies to.

QA staff are responsible for editing the data for each metadata element described in this document. Typically, they also enter the data into the corresponding metadata fields in an online content repository such as the Exchange (TLF’s online content repository).
## 2.1 Title

<table>
<thead>
<tr>
<th>Element name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 1.2 Title</td>
</tr>
<tr>
<td></td>
<td>DCMES 1.1 Title</td>
</tr>
<tr>
<td>Definition</td>
<td>Brief title of content. May include a subtitle and/or qualifier.</td>
</tr>
<tr>
<td>Purpose</td>
<td>- Key field used prominently in the initial display of search engine results within learning management systems.</td>
</tr>
<tr>
<td></td>
<td>- To help users distinguish between objects in a series.</td>
</tr>
<tr>
<td></td>
<td>- Also used in online and offline promotions.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (ALL items)</td>
</tr>
<tr>
<td>Examples</td>
<td><strong>Learning objects</strong></td>
</tr>
<tr>
<td></td>
<td><em>Title (aggregated object)</em></td>
</tr>
<tr>
<td></td>
<td>L1306 Seeing with sound</td>
</tr>
<tr>
<td></td>
<td><em>Title including subtitle</em></td>
</tr>
<tr>
<td></td>
<td>L1032 Take a vote: democracy</td>
</tr>
<tr>
<td></td>
<td><em>Title including subtitle and qualifier</em></td>
</tr>
<tr>
<td></td>
<td>L501 Meet a scientist: geologist [no spoken instructions]</td>
</tr>
<tr>
<td></td>
<td><em>Titles including subtitle, sub-subtitle for series of HTML pages</em></td>
</tr>
<tr>
<td></td>
<td>L105 Number partner: go figure: making tens</td>
</tr>
<tr>
<td></td>
<td>L105 Number partner: tutorial: control instructions</td>
</tr>
<tr>
<td></td>
<td><em>Title including subtitle, sub-subtitle for an assessment object</em></td>
</tr>
<tr>
<td></td>
<td>L8631 Scale matters: whole numbers: assessment</td>
</tr>
<tr>
<td></td>
<td><em>Title including subtitle, language qualifier and platform-specific qualifier</em></td>
</tr>
<tr>
<td></td>
<td>L1019 Dressing up: school [Japanese] [Windows version]</td>
</tr>
<tr>
<td></td>
<td><strong>Digital resources</strong></td>
</tr>
<tr>
<td></td>
<td><em>Title including year of production</em></td>
</tr>
<tr>
<td></td>
<td>R2416 Repairing a truck on the Nullarbor in 1915</td>
</tr>
<tr>
<td></td>
<td><em>Titles including year of production and subtitle</em></td>
</tr>
<tr>
<td></td>
<td>R6703 'Opening the Sydney Harbour Bridge: 1932' - part 5 of 9</td>
</tr>
<tr>
<td></td>
<td>R6422 'Faces of Australia', 1968 - part 3 of 34</td>
</tr>
</tbody>
</table>
2.1.1 Guidelines for content creation for 'Title'

General

- Ensure every item has a unique title.
- Include a subtitle for all learning objects except objects that combine all objects in a series.
- If possible, include the title and subtitle on screen within the content of each item. Ensure titles and subtitles match on-screen text.
- When a learning object includes separate HTML or XHTML pages, ensure each separate page has a unique subtitle or sub-subtitle.

Syntax and grammar

- Use sentence case.
- For digital resources, do not begin the title with an article.
- For learning objects, separate the title from subtitle(s) with a colon. For digital resources, separate the title from subtitle(s) with a hyphen.
- Begin subtitles and sub-subtitles in lower case unless the first word is a proper noun.
- If a subtitle is needed, avoid using punctuation such as question marks or exclamation marks at the end of the title.
- For learning objects, add qualifiers after subtitles as relevant. Include them in the order shown in the examples below, ie Language(s); Audio versions; Technical platforms.
- Keep all title components brief to ensure they can be displayed on screen.
- If the name of a film, song etc is part or whole of a digital resource title, insert it in '(straight) quotes'.

Main title

- Choose a main title to engage the interest of students and teachers.
- Use a short phrase that encapsulates a single idea. If possible, include a key element of the learning setting. For example: L2011 Colossal fossils: the dig
- For digital resources, include the year of production where possible. If the exact year is unknown, use 'c' (circa). For example: R2765 At the site of Parliament House, c1923

Subtitles

- Choose subtitles that help teachers to distinguish between similar objects in a series. Where possible, the subtitle should highlight a key educational feature.
- Use a significant word or short phrase to focus on an educational difference between objects. For example: L1174 Dream machine: similes L862 Dream machine: metaphors
- If a series of items has a combined object (aggregated item), choose subtitles that reflect a key part of the overall functionality or specific educational focus.
For example:
L895 Energy-efficient house
L1148 Energy-efficient house: introduction
L1149 Energy-efficient house: explore design
L1150 Energy-efficient house: build for performance
L1151 Energy-efficient house: build for value
L1483 Optics and images
L1487 Optics and images: plane mirrors
L1488 Optics and images: curved mirrors
L1489 Optics and images: lenses

- Ensure all subtitles in the same series use pluralisation and parts of speech consistently. For example, if one subtitle in a series uses an imperative verb form, then others should use the same verb form. Subtitles such as 'solve problems' and 'make your own problems' are grammatically consistent, whereas 'solve problems' and 'creation problem' are not.

- Avoid the arbitrary use of numbers, levels and overt value-based words such as 'easy,' 'simple' or 'beginner'. For example, avoid subtitles such as:
  'Learning objects: differences 1'
  'Learning objects: level 1'
  'Learning objects: easy'

- If it is impossible to identify an educational focus for subtitles, base the subtitles on a significant difference in the content. For example:
  L390 Space rescue: Planet Thor
  L282 Space rescue: Planet Ventura
  L283 Space rescue: Planet Juno

- If the content of an object is almost identical to another object, except that an assessment component has been added, append the word 'assessment' to the title. For example:
  L700 Pushing and pulling
  L7879 Pushing and pulling: assessment
  L477 Wild ride: get a grip
  L7969 Wild ride: get a grip: assessment

- If the functionality of an object is almost identical to another object, but the content is different and an assessment component has been added, apply a different title and append the word 'assessment'. For example:
  L700 Riddle of the black panther: the search
  L7879 Riddle of the gorilla: assessment

- Avoid the use of sub-subtitles wherever possible.

- For digital resources that are part of a series of related subject matter, add a subtitle indicating the place within the series. For example:
  R6422 'Faces of Australia', 1968 - part 3 of 34

- For digital resources that contain the same subject matter but are otherwise unconnected, use the same title followed by an 'item number'. For example:
  R5893 Australia Telescope Compact Array, 1988 – item 2

**Qualifiers: languages**

- If two learning objects have identical titles and functionality but the content is presented in different languages, append a qualifier [in square brackets] for each version. For example:
  L1014 Dressing up [Chinese]
L1022 Dressing up [Japanese]

- Do not use language qualifiers when content differences can be readily identified and included in the subtitle. For example:
  L1234 Direct a taxi: Beijing traffic mayhem
  L1232 Direct a taxi: Kyoto traffic mayhem

Qualifiers: audio versions

- If two learning objects have identical titles and learning outcomes but one has voiceover narrations and the other doesn't, append a qualifier [in square brackets] for the version with no voiceovers. For example:
  L505 Meet a scientist: virologist
  L506 Meet a scientist: virologist [no spoken instructions]

Qualifiers: technical platforms

- Append a qualifier [in square brackets] when a learning object is dependent on a specific operating platform. For example:
  L623 Quiz show: pick a box [Chinese] [Windows version]

### 2.2 General identifier

<table>
<thead>
<tr>
<th>Element name</th>
<th>Identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 1.1 General &gt; Identifier</td>
</tr>
<tr>
<td>Definition</td>
<td>An entry within a listing identification system that uniquely identifies an item.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To identify the item.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (ALL items)</td>
</tr>
</tbody>
</table>
| Examples         | Example for an original learning object involving interactivity and instructional design (Direct a taxi: Beijing traffic mayhem):
  Catalog: TLF-LearningObject Entry: L1234 |

Example for a learning object that has been republished with permission from its copyright owner (Dify):

Catalog: TLF-LearningObject Entry: L4159
Catalog: NLVM Activities Entry: 326

Example for a black-and-white photograph of journalist and miner Archibald Sanderson equipped for a bicycle trip to Coolgardie, Western Australia, in 1895 (Archibald Sanderson, 1895):

Catalog: TLF-Resource Entry: R4736
Catalog: SLWA Entry: 009077D

Example for a metadata-only item linking to a film clip on the australianscreen online website (Gallipoli, 1981: 'We haven't seen a Turk yet!'):

Catalog: TLF-Resource Entry: R7326

Note there is no identifier available from the distributor for the parent film 'Gallipoli' – or clips drawn from it.
2.2.1 Guidelines for content creation for 'General identifier'

- There should always be a system-generated identifier for the local catalog (i.e., TLF-Learning Object OR TLF-Resource). For original content (initial publication), no further catalog entries are needed.

- For extant content, include the identifier from the original catalog if the republished item is essentially the same as the original item. For example, a resized image is regarded as essentially the same as the original image, but a cropped version of the image would be regarded as different.

- Choose the catalog name according to the actual source that can most readily be identified by a user. For example, the resource R7326, republished from the Battye Library, should identify the catalog as 'SLWA', the standard name of the parent organisation's online catalog. The original catalog entry is '009077D'. Note that the item cannot be located in the SLWA catalog if the leading zeros are removed.

- Assign multiple catalog entries if relevant. An item may be republished or catalogued by several organisations, each having their own catalog with globally unique identifiers.
## 2.3 Description

<table>
<thead>
<tr>
<th>Element name</th>
<th>Description</th>
</tr>
</thead>
</table>
| Authority    | LOM 1.4 General > Description  
DCMES 1.1 Description |
| Definition   | A high-level summary of the content. |
| Purpose      | - Key field used in the initial display of search engine results.  
- To help users decide whether the item is of interest.  
- Also used in online and offline promotions. |
| Obligation   | Mandatory (ALL items) |

### Examples

**Learning object**

L8187 My design: talking car: choose text

'Design a talking car to present at show and tell. Create your car by selecting from a range of elements such as mood, size and colour. Choose a voice and background picture for your car. Decide on a name that suits your talking car. Select a note about your car. Watch the animation. Evaluate the impact of your design by using icons and selecting a comment. This learning object is one in a series of six objects.'

[Note: This example is 77 words; 413 characters.]

L8629 Scale matters: all numbers: assessment

'Test your understanding of the use of scales, ranging from tens of thousands or thousands through to ones, tenths or hundredths. Look at two numbers and place a third number on a number line. Rename the third number by assigning place values for each digit or group of digits. For example, look at the numbers 105 384 and 105 392 on a number line and select 'Ones' as the most useful scale to locate the given number 105 387. Rename 105 387 as 10.5 tens of thousands and 38.7 tens. View and print a report of your results. This assessment object is one in a series of three objects.'

[Note: This example is 109 words; 582 characters.]

**Digital resource**

R6028 Aerial cinematographer, 2004

'This is a colour photograph of a cinematographer about to film aerial shots from an aeroplane for the documentary film 'Remembering Rain' in 2004. The cinematographer holds a Sony HDV camera, a high-definition video camera, which is attached to a special mount to give the camera stability. He is wearing headphones so that he can listen to instructions from the director and possibly the pilot of the aeroplane.'

[Note: This example is 68 words; 344 characters.]
2.3.1 Guidelines for content creation for 'Description'

Be concise. Focus on the contents and broader context of the content.

General

- Enter between two and five short sentences (up to 100 words).
- For learning objects, write this description for a general audience, ie students and teachers.
- For digital resources, aim this description at teachers only.
- Convey enough meaning to help the reader decide whether the item is of interest.
- Think about what differentiates this content from other items.
- Ensure there is sufficient context for the user to determine key aspects of the content.
- Use neutral language. Avoid overly promoting the item or using emotive language.

Learning objects

- Use the active voice to describe actions that the student will perform.
- Describe the essence of the setting AND the subject of the learning object. Do not include details of intended learning outcomes, operational processes or potential educational value.
- Include examples to demonstrate the scope of the content.
- Include something on how the student will interact with the content if relevant.
- Begin sentences with active verbs such as the following, which are given in order of preference: explore, look (closely) at, examine, notice, compare, match, estimate, describe, predict, complete, answer (questions), choose, build, use (a model), sort, work out, find out, test, identify.
- Avoid verbs that suggest the student has no prior knowledge of the content. Words to avoid include: learn, discover, realise.
- If a content item occurs within a series of closely related items, add a series-linking sentence at the end of the description. First, identify whether the series is graded in terms of difficulty, for example the 'Photo hunt' series. Second, consider whether there may be educational reasons for interaction with the content in a particular order, for example the 'Innovation cycle' series. Then apply the relevant pattern from the examples below.

Learning object combining some or all objects in a series

- This learning object is a combination of X objects in the same series.
  (combines all objects)
  eg L2531 Air pressure

- This learning object is a combination of X objects in a series of Y objects.
  (combines some objects but not all)
  eg L513 Science reporter: geologist and environmental scientist

Learning object in a series

- This learning object is one in a series of X objects.
  (not graded; order unimportant)
  eg L1092 Hopper: tenths
Metadata Guidelines for Digital Content

- This learning object is the first in a series of X objects that progressively increase in difficulty.
  (graded; order may be important)
  eg L752 Shape overlays: find and cut

- This learning object is the second/third in a series of X objects that progressively increase in difficulty.
  (graded; order may be important)
  eg L1073 Shape overlays: picture puzzle

- This learning object is the last in a series of X objects that progressively increase in difficulty.
  (graded; order may be important)
  eg L152 Compound shapes: large shapes

- This learning object is the first in a series of X objects.
  (not graded; order may be important)
  eg L1046 The innovation cycle: introduction

- This learning object is the second/third in a series of X objects.
  (not graded; order may be important)
  eg L1047 The innovation cycle: generate idea

- This learning object is the last in a series of X objects.
  (not graded; order may be important)
  eg L1055 The innovation cycle: service

*Learning object in a series – all packaged together*

Add a final sentence:

- The series is also packaged as a combined learning object.

*Learning object in a series – some packaged together*

Add a final sentence:

- Y objects in the series are also packaged as a combined learning object.
  eg 'Three objects in the series are also packaged as a combined learning object.'
  eg L2564 Exploring atoms: atom builder OR

- 'Some objects in the series are also packaged as combined learning objects.'
  eg L2005 Scale matters: hundreds
## 2.4 Contribute (Role, Entity and Date)

<table>
<thead>
<tr>
<th>Element name</th>
<th>Contribute</th>
</tr>
</thead>
</table>
| Authority    | LOM 2.3 Life cycle > Contribute  
LOM 2.3.1 Role  
LOM 2.3.2 Entity [vCard]  
LOM 2.3.3 Date |
| Definition   | Role: The kind of contribution made by an organisation to the development of the item.  
Entity: The name of a contributing organisation, its geographical location and a pointer to contact details, for example a URL.  
Date: The date of the original contribution. |
| Purpose      | To identify the main individuals and agencies credited with creating the item. |
| Obligation   | Mandatory (ALL items) |
| Examples     | In this example, the learning object was created by two developers in partnership. Both developers were contracted by TLF, the publisher. Note that Learning Curve is the first developer; it is a subsidiary of a parent organisation identified as The Swish Group Ltd. |

1st CONTRIBUTOR [Role = Technical implementer]  
Address: ‘City’ = Canberra; ‘Postcode’ = 2600; ‘State’ = ACT; ‘Country’ = Australia  
Organisation = The Swish Group Ltd; Learning Curve Pty Ltd  

2nd CONTRIBUTOR [Role = Technical implementer]  
Address: ‘City’ = Canberra; ‘Postcode’ = 2600; ‘State’ = ACT; ‘Country’ = Australia  
Organisation = Australian Science Teachers Association  
URL = http://www.asta.edu.au/

3rd CONTRIBUTOR [Role = Script writer]  
‘First name’ = Edwina ‘Last name’ = ‘Bloggs’  
Address: ‘City’ = Fitzroy; ‘Postcode’ = 3065; ‘State’ = VIC; ‘Country’ = Australia  
Organisation = Bloggs Media Services  

4th CONTRIBUTOR [Role = Publisher]  
Address: ‘City’ = Melbourne; ‘Postcode’ = 3000; ‘State’ = VIC; ‘Country’ = Australia  
Organisation = Curriculum Corporation; The Le@rning Federation  
URL = http://www.thelearningfederation.edu.au/
2.4.1 Guidelines for content creation for 'Contribute'

Enter the data for Role, Entity and Date elements together (they are interrelated elements).

- Assign a role first before entering details for an entity (organisation).
- Use the role ‘Technical implementer’ to describe the content developer role.
- Use the role ‘Script writer’ to describe the script author role.
- For learning objects, avoid the role of ‘Author’ unless it is required contractually for extant content.
- For digital resources, apply the role of ‘Author’ to creators of original resources. Also add the approximate year that the original contribution was made (in the vCard field 'date'). Apply a ‘role description’ for each ‘author’ from the controlled vocabulary of roles based on the MARC relator list. For example, animator, artist, manufacturer or photographer. Check MARC relators on the Library of Congress website at http://www.loc.gov/marc/sourcecode/relator/relatorlist.html
- Include the name of each major contributing organisation, ie lead developing agency plus partners. Do not credit individual contributors employed or subcontracted by the development company such as project managers, developers, graphic artists, instructional designers or quality assurance staff.
- For each organisation, include the name of the contributing sub-agency according to vCard syntax. (The name of the parent organisation should be listed first.)
- Include multiple organisations and sub-agencies if applicable.
- List a website address for the most specific organisational unit if it is available.
- Include the role ‘Publisher’ for all items, using the TLF details provided on the previous page.
- Do not credit individual staff members who work for the publisher. However, individuals should be credited if they have performed the role of subject matter expert or script writer.
- Where contributors are affiliated with more than one organisation or they make a contribution independently from their regular workplace, credit them according to their nominated organisation at the time of contribution. This affiliation is generally stated within their contract with the publisher.
- Check NZ postcodes on the NZ Post website at http://www.nzpost.co.nz/Cultures/en-NZ/OnlineTools/PostCodeFinder/

2.4.2 Copyright owners: vCard 'Role' (acknowledgements)

For items that include a thumbnail image containing third-party content, ensure there is at least one entry for the relevant contributor with an IMS role of 'Copyright owner'. If an image is subject to more than one copyright holder, add a separate role description for each copyright owner.

If the 'copyright owner' is the original creator or entity that has acquired authority to exercise ownership rights, the acknowledgement should include the permission phrase 'reproduced with permission of …'.

If the 'copyright owner' is a licensing agency, legal custodian or partner institution (not the original owner), the acknowledgement should include the permission phrase...
For learning objects, begin the role description with the original title of the image. Where there is no original title or copyright has lapsed, describe the content of the image. For example:

- L3248 Making a difference: Windradyne
  Contributor: State Library of NSW; Role: Copyright owner
  vCard 'Role' description: The drawing 'Corroboree of Wiradjuri people' by WM Curtis has been reproduced courtesy of the State Library of New South Wales.

Example in which the creator of an item is unknown:

- L5205 'Making a difference: Barak'
  Contributor: State Library of NSW; Role: Copyright owner
  vCard 'Role' description: The photograph of Barak holding a boomerang has been reproduced courtesy of the State Library of Victoria.

Where a digital resource has a learning resource type 'image' or 'moving image', begin the role description with the permission statement. Do not include an image title or image description in the role description. For example:

- R1794 'Waistcoat'
  Contributor: Museum of New Zealand Te Papa Tongarewa; Role: Copyright owner
  vCard 'Role' description: Reproduced courtesy of the Museum of New Zealand Te Papa Tongarewa.

Where a digital resource has a learning resource type 'sound', start the role description with the word 'Sound'. For example:

- R1525 'Sydney Flour song' includes a copyright owner with the following
  Contributor: National Film and Sound Archive; Role: Copyright owner
  vCard 'Role' description: Sound reproduced courtesy of National Film and Sound Archive.

Where an item is subject to more than one copyright holder, add a separate role description for each copyright owner. For example:

- R5483 'A different vision', 2004 includes two copyright owners.
  Contributor: History Trust of South Australia; Role: Copyright owner
  vCard 'Role' description: Reproduced courtesy of History Trust of South Australia.

  Contributor: Darryl Pfitzner Milika; Role: Copyright owner
  vCard 'Role' description: Reproduced with permission of Darryl Pfitzner Milika.

- L5209 Making a difference: Charles Perkins includes two copyright owners:
  Contributor: Newspix; Role: Copyright owner
  vCard 'Role' description: The close-up photograph of Charles Perkins has been reproduced with permission of Newspix.

  Contributor: News Limited; Role: Copyright owner
  vCard 'Role' description: The close-up photograph of Charles Perkins has been reproduced with permission of News Limited.

Where an item is subject to a licensing agreement in which the format of the acknowledgements is specified, that format should be used (even if it is different from the principles outlined above). For example:

- R4662 Inspecting foliage for insects
  Contributor: CSIRO Entomology; The Australian National Insect Collection;
2.5 Topics

<table>
<thead>
<tr>
<th>Element name</th>
<th>Topics</th>
</tr>
</thead>
</table>
| Authority    | LOM 9 Classification (9.1 Purpose = ‘idea’)  
               ScOT thesaurus |
| Definition   | Controlled keywords or phrases that describe the topic of the  
               learning object or digital resource. |
| Purpose      | To focus discoverability by assigning controlled thesaurus  
               terms. |
| Obligation   | Mandatory (ALL items) |
| Examples     | Example of topics for a lower primary learning object that uses  
               gardening principles to illustrate soil ecology:  
               Plants; Vegetables; Flowers; Flowering plants;  
               Nutrition; Water; Rain; Soils; Growth; Environment |

2.5.1 Guidelines for content creation for 'Topics'

For detailed indexing guidelines, refer to Using ScOT: Guidelines for indexers and cataloguers. The guidelines are published at:

Relevant 'topics' from the Schools Online Thesaurus (ScOT) should be assigned to the Topics field. Keywords that are preferred terms found in ScOT should also be entered into the Topics field. Proper nouns and other popular or colloquial terms not in ScOT should be entered into the Keywords field to enrich free-text searching. (See Section 2.4.)

When selecting topics:

- Strike a balance with the level of specificity. It is okay to be detailed, but always focus on central concepts plus key elements of the learning setting.
- Try to anticipate terms that the user community (students and teachers) are likely to use to locate the item.

2.6 Keywords

<table>
<thead>
<tr>
<th>Element name</th>
<th>Keywords</th>
</tr>
</thead>
</table>
| Authority    | LOM 1.5 General > Keyword  
               DCMES 1.1 Subject |
| Definition   | Keywords or phrases that describe the learning object or  
               digital resource. |
| Purpose      | To enrich discoverability by providing significant uncontrolled  
               terms. Combining these terms with controlled terms helps to  
               facilitate simple searches. |
| Obligation   | Mandatory (ALL items) |
| Examples     | Example of keywords for a lower primary learning object that |
uses gardening principles to illustrate soil ecology:
  Gardening; Gardens; Digging; Tools; Dirt
  [uncontrolled terms]
  Plants; Vegetables; Flowers; Flowering plants;
  Nutrition; Water; Rain; Soils; Growth; Environment
  [controlled terms found in ScOT thesaurus]

Here is an example of terms reviewed as keywords for a
learning object modelling strategies for solving arithmetic
problems:
  Compensation => Compensation (Arithmetic)  [keywords –
nominated for inclusion in ScOT]
  Counting on [keywords – nominated for inclusion in ScOT]
  Doubling; Tens and ones => deleted [irrelevant]
  Mental strategies; Partition => Partitioning strategies
  [keywords]
  Multiplication => Multiplication [ScOT – unchanged]
  Distributive law => Distributive property [keywords; nominated
  for inclusion in ScOT]
  Mental calculations => Mental arithmetic [keywords;
nominated for inclusion in ScOT]

Also assigned keywords not listed in initial draft: Area models
Also assigned ScOT terms not listed in initial draft:
Whole numbers; Factors; Number patterns
2.6.1 Guidelines for content creation for 'Keywords'

TLF uses an initial draft list of keywords, provided by the subject matter expert, as a starting point for assigning 'controlled terms' from the Schools Online Thesaurus (ScOT).

An editor reviews the draft list. Any terms in the list that are preferred terms in the ScOT thesaurus are entered into the Topics field. (These terms are known as 'controlled terms'.) The controlled terms are also entered into the Keywords field.

To enrich free-text searching, proper nouns, popular or colloquial terms are entered into the Keywords field only. (These terms are called 'uncontrolled terms'.)

So, both controlled terms (from ScOT) and uncontrolled terms appear in the Keywords field, whereas only controlled terms appear in the Topics field.

Use the following guidelines:

- Check preferred terms and related terms online in ScOT. It is publicly searchable at http://scot.curriculum.edu.au/
- Include curriculum terms and colloquial terms that may be used in free-text searching.
- Strike a balance with the level of specificity. It is okay to be detailed, but always focus on central concepts plus key elements of the learning setting.
- Try to anticipate terms that the user community (students and teachers) are likely to use to locate the learning object.
- Pluralise nouns.
- Use sentence case unless referring to proper nouns.
- Keywords may consist entirely of ScOT terms. Only add terms into keywords if they don't already appear in the title or description.

2.7 Learning area

<table>
<thead>
<tr>
<th>Element name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>A standardised list of curriculum areas.</td>
</tr>
</tbody>
</table>

**Learning area**

- **Purpose**: To help teachers identify which learning objects are directly related to their teaching discipline.
- **Obligation**: Mandatory (learning objects)
- **Examples**:
  - Example for a learning object used for teaching Japanese vocabulary:
    - Languages other than English
  - Example for a multidisciplinary learning object used for teaching both mathematical and scientific aspects of speed and direction:
    - Mathematics; Science
2.7.1 Guidelines for content creation for 'Learning area'

- In some cases, more than one value may apply for designated multidisciplinary learning objects. This should be confirmed by relevant educational specialists.

2.8 Strand

<table>
<thead>
<tr>
<th>Element name</th>
<th>Strand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'discipline') TLF Strand vocabulary</td>
</tr>
<tr>
<td>Definition</td>
<td>A standardised list of curriculum areas within each learning area.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To help teachers identify which items are directly related to a specific area within a teaching discipline.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (learning objects)</td>
</tr>
</tbody>
</table>
| Examples     | Example for a learning object about polynomial equations: Algebra [In full: 'Mathematics\Algebra']
               | Example for a learning object about polynomial equations in measurement: Algebra [In full: 'Mathematics\Algebra'] Measurement [In full: 'Mathematics\Measurement'] |

2.8.1 Guidelines for content creation for 'Strand'

- Include at least one relevant subject strand for each learning object.
- Assign multiple strands if relevant, but ensure the strands are within the same learning area.

Note: Some strand vocabularies are currently under review by TLF. Ensure only preferred strand values are entered.
## 2.9 Key learning objective

<table>
<thead>
<tr>
<th>Element name</th>
<th>Key learning objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'educational objective')</td>
</tr>
<tr>
<td>Definition</td>
<td>Measurable outcomes that the user can achieve after interacting with the item. Each outcome describes what the student will know, be able to do and how to assess whether the outcome has been achieved.</td>
</tr>
</tbody>
</table>
| Purpose      | - To identify the educational objectives that may be achieved by students using the item.  
- To help teachers assess the value of the item and relate it to their curriculum. |
| Obligation   | Mandatory (learning objects) |
| Examples     | Examples of active verbs that can be included:  
analyse, apply, articulate, assess, calculate, collect data,  
compare, conduct, connect, construct, describe,  
differentiate, evaluate, explain, gather information,  
hypothesise, identify, investigate, interpret, link, model,  
present, manipulate, predict, produce, relate, research,  
review, revise, solve problems, summarise, synthesise.  

Example of a learning outcome for a learning object used for teaching spatial relations by directly manipulating objects as well as mental imagery. 
- Students interpret and visualise 2D representations of 3D objects by matching a 3D aerial view to a 2D profile view. |
2.9.1 Educational guidelines for content creation for 'Key learning objective'

Be concise and specific. Use active language. Focus on clear, measurable outcomes. Use the checkpoints below when writing objectives.

1. The outcome is realistic. It can be achieved by the students specified as the target audience.
2. The outcome is significant. Only include outcomes that are useful steps in the learning process.
3. The learning design of the learning object makes a critical difference to the achievement of the outcome.
4. Achievement of the outcome is able to be demonstrated by the intended students within the school environment in which the learning object will be used.
5. The outcome is sufficiently clear to enable evaluators, teachers and students to see when a student has not achieved it.
6. The outcome is inclusive. Outcomes should not be framed so that some students are better positioned than others, for inappropriate reasons such as social class or ethnicity, to achieve them.
7. The outcome is essential for all the intended students to achieve, except in exceptional circumstances. Disabled students, particularly intellectually disabled students, pose a challenge, but this does not mean that outcomes must be eliminated or watered down. Instead, it means that when we include an outcome that a student with a disability is unlikely to achieve, we do so knowingly and carefully, not inadvertently.
8. The outcome is intelligible. Language should be simple and straightforward.
9. The outcome can be understood in isolation. Instructional designers, developers, evaluators, teachers and students should not have to rely on explanatory paragraphs or concept and sub-concept descriptions to understand its meaning.
10. The outcome is unambiguous. It is not open to a range of interpretations.

2.9.2 QA guidelines for content creation for 'Key learning objective'

Focus on the editorial integrity of the outcomes.

- **Standard beginning**
  Start every objective with the word 'Students'.
  Correct: 'Students represent number patterns ...'
  Incorrect: 'The learner will be able to: represent number patterns ...'

- **Level of specificity**
  Try to be relatively specific, but don't spell out exact details.
  Correct: 'Students identify materials and design factors that will maximise energy efficiency of a building in a given climate.'
  Incorrect: 'Students identify insulation materials, orientation factors and sealing techniques to maximise energy efficiency of a residential house in Sydney.'

- **Format, layout and length**
  Use a single sentence for each learning objective.

- **Self-contained statements**
  Each learning objective must stand alone. It should NOT refer to details in related objectives and it should NOT depend on context spelt out elsewhere.
- **Active verbs**
  
  Always include at least one active verb.
  
  *Correct:* ‘Students estimate speed from distance-time graphs.’
  
  *Incorrect:* ‘Students are able to interpret speed from distance-time graphs.’

- **Measurable outcomes**
  
  Ensure it is possible to verify whether each outcome can be achieved by a student. Avoid non-measurable verbs such as ‘recognise’, ‘understand’, ‘engage’ and ‘explore’.

### 2.10 Educational value

<table>
<thead>
<tr>
<th>Element name</th>
<th>Educational value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'educational objective')</td>
</tr>
</tbody>
</table>
| Definition   | **For learning objects**: Educational context, learning activities and design features that underpin the achievement of key learning objectives.  
|              | **For digital resources**: Features of the item that may have educational application. |
| Purpose      | To help teachers assess the value of an item and relate it to their curriculum. |
| Obligation   | Mandatory (ALL items) |
| Examples     | **Learning objects**  
|              | L843 Photo album: school life 2 [Indonesian]  
|              | (Used for teaching Indonesian culture)  
|              | - Includes authentic photographic images of Indonesia and descriptions of cultural aspects of Indonesian school life.  
|              | - Provides a caption matching exercise for students to apply reading and listening skills.  
|              | - Gives all instructions and feedback in the target language.  
|              | - Tests comprehension and grammatical knowledge through a series of multiple-choice questions.  
|              | L2371 Biscuit factory: ratios  
|              | (Used for teaching principles of working with ratios)  
|              | - Demonstrates that factors, multiples and common multiples are integral to solving problems involving ratios.  
|              | - Provides opportunities for students to practise multiplication and division operations in ratio situations.  
|              | - Encourages students to use multiplicative strategies and ratios to interpret and describe relationships between objects.  
|              | - Provides data tables for students to record observations and predictions.  
|              | - Automatically collates data tables and displays number patterns on line graphs. |
Digital resource

R6028 Aerial cinematographer, 2004

- The camera in this photograph is high definition (HD), able to record high-definition video onto magnetic tape. Because HD format emulates the final look of film, HD may replace film in the future as the stock used for making films and documentaries.
- The term 'high definition' can refer to the resolution specifications themselves, or to media capable of sharpness similar to movie film. When used in relation to television, high-definition television (HDTV) refers to the broadcasting of television signals with a significantly higher resolution than traditional formats (NTSC, SECAM, PAL). HDTV is broadcast digitally and therefore its introduction sometimes coincides with the introduction of digital television (DTV). This technology was first introduced in the USA during the 1990s. Australia started HD broadcasting in January 2001. In 2006, however, most Australian TV broadcasters were still only experimenting with HDTV transmission.
- The camera is set to film wide-screen at an aspect ratio of 16:9. Aspect ratio is the ratio of the width to the height of the picture, so a 16:9 ratio is 16 units of width and 9 units of height. An aspect ratio of 16:9 is a wide-screen format, while one of 4:3 (ie 12:9) is the format of the traditional television screen.
- Filming for the documentary 'Remembering Rain' took place in the central-western region of New South Wales. The film is about the people of the bush as they attempt to weather the worst drought on record at the time. The character-driven observational documentary also contains essay-like explorations of key drought issues, such as climate change, agricultural practices and the environmental and economic forces that are having such a dramatic effect on social fabric of rural communities.
- The cinematographer filmed aerial shots to show how the land had been affected by drought and created iconic images of the vastness of the dry rural landscape.
- Filmmakers use aerial shots with great care as they are an extremely expensive way of shooting film. The main cost is in the hire of an aeroplane or helicopter and an experienced pilot. The cost of equipment and the relatively increased danger involved in using crew on an aerial shoot means that producers have to pay an insurance premium to cover the crew for the hours they are flying.
- Aerial cinematographers require special skills to hold the camera steady and ensure that the image has the right exposure.
2.10.1 Educational guidelines for content creation for 'Educational value' – learning objects

Include concise statements that describe aspects of the learning experience. Try to include a statement for each of the three categories below, following the same order of presentation. Note that the first statement should contain the most significant educational value point about the object.

- **Educational context**: outline the key principle or principles covered within the learning object. (Include one point only.)
- **Key activities**: describe the activities the students complete to achieve the key learning objectives. (Include one to three points.)
- **Design features**: describe features that support the learning process. (Include one or two points.) Some examples include:
  - Includes print options such as certificates of achievement, creative works, result summaries or performance reports.
  - Gives feedback in the target language (LOTE) OR Displays feedback visually as ticks and crosses (Mathematics).
  - Encourages repeated use through randomisation of activity elements.
  - Provides a succession of levels of complexity that support a student's progress OR that may be varied by the student to suit their skill level.
  - Enables collaboration between students on an activity, either online or offline.
  - Provides a mechanism for the student and teacher to comment on the student's learning progress.

**Syntax and expression**

- **Standard term for 'students'**
  Use the word 'students' when referring to users (learners) in years 0–13.
  
  Correct: 'Includes instructions for experiments where students explore and measure phase changes.'
  
  Incorrect: 'The learner downloads instructions for experiments ...'

- **Level of specificity**
  Try to be relatively specific, but don't spell out exact details.
  
  Correct: 'Illustrates how biologists do fieldwork, identify specimens and explore ecological interactions.'
  
  Incorrect: 'Shows biologists conducting wildlife surveys, collecting botanical specimens, analysing morphology, using dichotomous keys and describing behaviour between insects, birds and plants.'

- **Format, layout and length**
  Use a single sentence for each statement.

- **Self-contained points**
  Each educational value point should stand alone. The statements must NOT refer to details in other learning objects or rely on information in other metadata fields within the same object.

- **Verbal forms**
  Use verbs as recommended in the examples below to clarify what support is given to the students and what the learning design does.

  'Illustrates parts of a flower.'
2.10.2 Guidelines for content creation for 'Educational value' –
digital resources
See TLF's Digital resources style guide.

2.11 Audience type

<table>
<thead>
<tr>
<th>Element name</th>
<th>Audience type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 5.5 Educational &gt; Intended end user role</td>
</tr>
<tr>
<td>Identifier</td>
<td>2.3.1 Educational &gt; Subject &gt; Curriculum &gt; Audience &gt; Type</td>
</tr>
<tr>
<td>Definition</td>
<td>The target audience the item is intended for.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To help users identify learning objects designed specifically for them.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (learning objects)</td>
</tr>
<tr>
<td>Example</td>
<td>Example for a learning object exploring Torres Stait Islander culture: L1202 Saibai Island canoe Audience type: Learner Example for an object used to assess student skills: L7734 Dugong dilemma: assessment Audience type: Learner; Teacher Example for a digital resource used solely to support teachers in the use of a learning object: R7641 Carilah oleh-oleh: teacher resource Audience type: Teacher</td>
</tr>
</tbody>
</table>

2.11.1 Guidelines for content creation for 'Audience type'
- For individual learning objects, including aggregates, apply the default value of "Learner" (equivalent to 'Student').
- For resources used solely to support teachers in the use of learning objects, apply the value 'Teacher'.
- Apply multiple values where relevant. For example, for assessment objects, apply the values 'Learner'; 'Teacher'.

2.12 Audience sector

<table>
<thead>
<tr>
<th>Element name</th>
<th>Audience sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 5.6 Educational &gt; Context edna 1.1 edna.audience: edna.sector</td>
</tr>
<tr>
<td>Definition</td>
<td>The educational sector (schooling level) that the item is intended for.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To help users identify learning objects designed specifically for them.</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (learning objects)</td>
</tr>
<tr>
<td>Example</td>
<td>Example for learning objects targeted at students in years 0–13: School</td>
</tr>
</tbody>
</table>

2.12.1 Guidelines for content creation for 'Audience sector'
- Check the most common value is applied, ie 'School'.

2.13 Student activity

<table>
<thead>
<tr>
<th>Element name</th>
<th>Student activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'educational objective') TLF Student Activity Vocabulary</td>
</tr>
<tr>
<td>Definition</td>
<td>Controlled keywords or phrases that describe the learning object.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To focus discoverability by assigning controlled terms.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (learning objects)</td>
</tr>
<tr>
<td>Examples</td>
<td>Example for a lower primary learning object that encourages students to explore techniques for solving mathematical problems through interactive tools: Interactives; Experiment; Analysis; Modelling</td>
</tr>
</tbody>
</table>

2.13.1 Guidelines for content creation for 'Student activity'

There are just a handful of terms that apply to most learning objects. Indeed, an identical set of terms may apply across a large group of learning objects. This commonality is not a problem; this field distinguishes learning objects from different types of learning objects indexed in local repositories.
- Common values (in order of likely occurrence) are 'Interactives'; 'Experiment'; 'Analysis' and 'Modelling'.
- Terms that occur occasionally are 'Comprehension activity' and 'Games'.
- Some terms, by definition, can only apply to offline activities. Therefore, they would rarely be applied to online content.
### 2.14 User level

<table>
<thead>
<tr>
<th>Element name</th>
<th>User level</th>
</tr>
</thead>
</table>
| Authority    | LOM 5.7 Educational > Typical age range  
LOM 9 Classification (9.1 Purpose = 'educational level')  
edna 1.1 edna.audience-userlevel |
| Definition   | The range of school years that the item is intended for. |
| Purpose      | To help users identify learning objects designed specifically for a year level or range of year levels. |
| Obligation   | Mandatory (learning objects) |

#### 2.14.1 Guidelines for content creation for 'User level'

- Enter all of the school years covered by the learning object
- Express the year preceding formal school commencement numerically as '0'. This year is commonly labelled as kindergarten (K) or preparatory (P).

### 2.15 Spatial coverage

<table>
<thead>
<tr>
<th>Element name</th>
<th>Coverage – Spatial</th>
</tr>
</thead>
</table>
| Authority    | LOM 9 Classification (9.1 Purpose = 'idea')  
DCMES 1.1 Coverage; DCQ Spatial  
Geographic reference works such as Gazetteer of Australia |
| Definition   | Scope of geographical locations represented in the intellectual content of a learning object or digital resource. |
| Purpose      | To enrich discoverability by specifying geographical locations. |
| Obligation   | Recommended |

#### Examples

**Learning objects**

*Example for a learning object illustrating changes in the colour of water off the Tasmanian coast. In this case, a peninsula is named as there is no evidence identifying a specific body of water such as Wineglass Bay or Coles Bay:*

L574 The colour of water: Freycinet Peninsula  
Country: AUSTRALIA  
Gazetteer ID (Feature number): TAS05349  
State ID: TAS  
Name: Freycinet Peninsula  
Longitude: 148.30000; Latitude: -42.21000

*Example for a learning object exploring how early transport*
and communications systems worked in outback Queensland in the 1890s. Note that this item includes several fictional elements but the spatial location is still relevant.

<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Country</th>
<th>Gazetteer ID (Feature number)</th>
<th>State ID</th>
<th>Name</th>
<th>Longitude</th>
<th>Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>L676</td>
<td>Medical emergency at Lonely Creek</td>
<td>AUSTRALIA</td>
<td>QLD19947</td>
<td>QLD</td>
<td>Lonely Creek</td>
<td>145.38000</td>
<td>-22.26000</td>
</tr>
</tbody>
</table>

Example for a learning object exploring a 1981 proposal to dam the Franklin River. Note that a broad region within Tasmania is relevant; a national park is identified and associated with a single point.

<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Country</th>
<th>Gazetteer ID (Feature number)</th>
<th>State ID</th>
<th>Name</th>
<th>Longitude</th>
<th>Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>L362</td>
<td>Anthony McClorey: Franklin Dam</td>
<td>AUSTRALIA</td>
<td>TAS38357</td>
<td>TAS</td>
<td>Franklin-Gordon Wild Rivers National Park</td>
<td>145.96285</td>
<td>-42.46165</td>
</tr>
</tbody>
</table>

Digital resources

Example for a photograph taken near old Andado Station in the Northern Territory. Note that the precise location is unknown. Therefore, the nearest relevant location with an official name in the Gazetteer is applied.

<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Country</th>
<th>Gazetteer ID (Feature number)</th>
<th>State ID</th>
<th>Name</th>
<th>Longitude</th>
<th>Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>R6011</td>
<td>Preparing to film wild camels, 1973</td>
<td>AUSTRALIA</td>
<td>NT10318</td>
<td>NT</td>
<td>Andado</td>
<td>135.29000</td>
<td>-25.40000</td>
</tr>
</tbody>
</table>

Example for a film clip about an army training exercise set in a mock-Vietnamese town. Note that a specific suburb of Sydney (Casula) is identified; Vietnam is not included.

<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Country</th>
<th>Gazetteer ID (Feature number)</th>
<th>State ID</th>
<th>Name</th>
<th>Longitude</th>
<th>Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>R5098</td>
<td>'Army training for Vietnam', 1968 - asset 1</td>
<td>AUSTRALIA</td>
<td>NSW11613</td>
<td>NSW</td>
<td>Casula</td>
<td>150.98460</td>
<td>-33.94850</td>
</tr>
</tbody>
</table>

Example for a film clip about the flooding of Old Jindabyne and construction of a dam as part of the Snowy Mountains Hydroelectric Scheme. Note that the current place name is preferred to an historic name.

<table>
<thead>
<tr>
<th>ID</th>
<th>Title</th>
<th>Country</th>
<th>Gazetteer ID (Feature number)</th>
<th>State ID</th>
<th>Name</th>
<th>Longitude</th>
<th>Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>R6433</td>
<td>'Faces of Australia', 1968 - part 14 of 34</td>
<td>AUSTRALIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example for an item concerned with multiple locations. This film clip is about the relocation of Captain Cook's Cottage from Yorkshire to Melbourne via Point Hicks in 1938.
R7413 Captain Cook's Cottage, 1938

Country: UNITED KINGDOM
Name: Easby Moor;
Longitude: -1.09080; Latitude: -54.48300

Country: AUSTRALIA
Gazetteer ID (Feature number): NSW25528
State: NSW
Name: Point Hicks
Longitude: 149.27533; Latitude: -37.80318

Gazetteer ID (Feature number): VIC15609
State: VIC
Name: Fitzroy Gardens
Longitude: 144.97915; Latitude: -37.81142

Example for a film clip about a speech given by the German President in Berlin regarding actions during World War II. Note the name of the building where the speech was given and reported on is precisely identified. Passing references to several other countries are insufficient to justify their inclusion in spatial metadata.
R8095 Paying for the Past, 2000: 'Victims' justice is going to prevail'
Country: GERMANY

Name: Bellevue Palace;
Longitude:13.35333; Latitude: 52.51750;
2.15.1 Guidelines for content creation for 'Spatial coverage'

If the intellectual content of the item is only related to a particular region, then record this information in the Spatial element. Do not use this element if the intellectual content is not related to a particular location.

- For Australian terms (except states), refer to the Gazetteer of Australia via the Geoscience Australia website at http://www.agso.gov.au/map/names/
- For New Zealand terms, refer to the New Zealand Placenames Geographic Database via Land Information New Zealand at http://www.linz.govt.nz/core/placenames/searchplacenames/
- Enter the ISO two-character country code, for example ID (Indonesia) or NZ (New Zealand). Note the country code for Australia may be system-generated.
- For Australian states, enter the ISO 2-3 character regional code. Note the state code should be system-generated if any place within that state is selected.
- Where a range of locations is covered, try to apply a term that best fits the larger region. See the examples given in the section above.
- Select a single location with the greatest relevance. If multiple locations are relevant, enter the most relevant point first.

TLF systems validate a Gazetteer ID (feature number) and enter a standardised name, latitude and longitude, and state or territory. This information is derived from an inbuilt authority file.
### 2.16 Temporal coverage

<table>
<thead>
<tr>
<th>Element name</th>
<th>Coverage – Temporal</th>
</tr>
</thead>
</table>
| Authority    | LOM 9 Classification (9.1 Purpose = ‘idea’)  
DCMES 1.1 Coverage; DCQ Temporal [DCMI Period] |
| Definition   | Scope of the time periods spanned by the intellectual content of an item. |
| Purpose      | To enrich discoverability by specifying dates or time periods. |
| Obligation   | Recommended |
| Examples     | Example for a learning object about the economic strategies used in Australia during the Great Depression. Note this item also contrasts the 11-year depression period with earlier and later time periods:  
L371 Norman Dean: Great Depression  
   Scheme: W3C-DTF  
   Start:  
      Year: 1929  
   End:  
      Year: 1939  
   Name: Great Depression  

Example for a learning object exploring the life stories of people who lived in Broome between 1902 and 1982. Note that this item sketches living conditions and architectural styles in specific years, with some references to events in intervening years.  
L2707 This house: settling in Broome  
   Scheme: W3C-DTF  
   Start:  
      Year: 1902  
   End:  
      Year: 1982  

Example for an item about the original flag flown during the Eureka Stockade uprising at Ballarat. Note that the artefact is closely associated with a named historic event.  
R7513 Southern Cross flag  
   Scheme: W3C-DTF  
   Start:  
      Year: 1850  
      Month: Nov  
      Day: 29  
   End:  
      Year: 1850  
      Month: Dec  
      Day: 3  
   Name: Eureka Stockade  

Example for a 2006 television documentary filmed in 2004–2005. The narrator describes a 1901–1903 polar expedition that collected fossils deposited 55 million years ago. Note that the filming period is the most relevant date range. |
### 2.16.1 Guidelines for content creation for 'Temporal coverage'

If the intellectual content of the item is only related to a particular time period, then record this information in the Temporal field. Otherwise, do not use this element.

- Select temporal terms from controlled lists wherever possible. If it is necessary to specify a time of day, be careful to include the time zone correctly.
- Strike a balance with the level of specificity. It is okay to be detailed, but always consider if a larger time period is more appropriate.
- Include 'start' AND 'end' dates for all items, unless they are ongoing.
- Enter a standard 'name' for the time period, if relevant. In many cases, no 'name' is needed and that field should be left blank.
- Use the standard date-time format (W3C-DTF) wherever possible. Use the BCE scheme (BC) to identify dates 'Before the Common Era'.

### 2.17 Learning resource type

<table>
<thead>
<tr>
<th>Element name</th>
<th>Learning resource type</th>
</tr>
</thead>
</table>
| Authority    | LOM 5.2 Educational > Learning resource type  
TLF Learning resource type vocabulary  
DCMI Type vocabulary |
Definition | A standardised list of media types.
---|---
Purpose | To help teachers identify the media type of a resource, especially the primary media type.
---|---
Obligation | Mandatory
---|---
Examples | Example for a learning object involving instructional design: 'Interactive resource'
Example for a historical photograph of a pipeline, including the resource description: 'Image'
Example for a performance of a song, including a transcript and resource description: 'Sound'
Example for a resource that introduces ways of using a learning object in the classroom: 'Teacher guide'

2.17.1 Guidelines for content creation for 'Learning resource type'
- Choose at least one learning resource type for each content item.
- For learning objects, leave the default value as 'Interactive resource'.
- If the object is a collection item, add the value 'Collection'.
- By definition, 'TLF digital resources' (items with a general identifier catalog 'TLF-Resource') cannot include the value 'Interactive resource'.
- Assign multiple types if relevant. Note that this is an ordered element. Therefore, the selected value that is nearest the top of the vocabulary is identified as the primary type.

2.18 Relation

<table>
<thead>
<tr>
<th>Element name</th>
<th>Relation</th>
</tr>
</thead>
</table>
| Authority | LOM 7 Relation
LOM v1.0 'Kind' vocabulary |
| Definition | A known relationship between two content items. |
| Purpose | To help users identify other items formally related to an item of interest and identify differences between versions of items. |
| Obligation | Mandatory (ALL items) |
| Examples | Kind = 'haspart'
L5917 Genes
haspart TLF-LearningObject L5918
haspart TLF-LearningObject L5919
haspart TLF-LearningObject L5920
haspart TLF-LearningObject L5921
haspart TLF-LearningObject L5922 |
Kind = 'ispartof'; issiblingof
L5918 Genes: introduction to genes
ispartof TLF-LearningObject L5917
issiblingof TLF-LearningObject L5919
issiblingof TLF-LearningObject L5920
issiblingof TLF-LearningObject L5921
issiblingof TLF-LearningObject L5922

Kind = 'issiblingof'
R6748 'Aussies land in Korea', 1950 - part 1 of 3
issiblingof TLF-Resource R6749 ('Aussies land in Korea', 1950 - part 2 of 3)
issiblingof TLF-Resource R6750 ('Aussies land in Korea', 1950 - part 3 of 3)

Kind = 'isversionof'
L6310 Train a sumo wrestler: sports culture in Japan
isversionof TLF-LearningObject L649 {Train a sumo wrestler: beginner}

Kind = 'hasversion'
L649 Train a sumo wrestler: beginner
hasversion TLF-LearningObject L6310 {Train a sumo wrestler: sports culture in Japan}
issiblingof TLF-LearningObject L1230 {Train a sumo wrestler: advanced}

Kind = 'isreferencedby'
L6937 Carilah oleh-oleh
isreferencedby TLF-Resource R7641

Kind = 'references'
R7641 Carilah oleh-oleh: teacher resource
references TLF-LearningObject L6937
R9986 'Kiritjinya' by John Tjakamarra, 1975
Description: Full content located on the NMA website

Kind = 'isformatof'
TLF is not currently using this 'kind' value.

Kind = 'hasformat'
TLF system generates one instance of this kind value for each item containing a thumbnail image.
The identifier of the related item may be a relative file path to the image. For example:
<table>
<thead>
<tr>
<th>Kind = 'isbasedon'</th>
</tr>
</thead>
<tbody>
<tr>
<td>There should be one instance of this kind value for each republished item. The identifier of the related item will always be identical to the general identifier of the item. For example:</td>
</tr>
<tr>
<td>L370 Dorothy Griffin: great Australian women isbasedon TLF-LearningObject L370 {Dorothy Griffin: great Australian women}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kind = 'isbasisfor'</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLF is not currently using this 'kind' value.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kind = 'isrequiredby'; Kind = 'requires'</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLF is not currently using these two 'kind' values. All current content is self-contained. However, future items may require run-time environments or similar.</td>
</tr>
</tbody>
</table>
2.18.1 Guidelines for content creation for 'Relation'

Order of identifiers
For each 'kind', add identifiers in the logical order that they should be discovered. In the example for L5917 'Genes', the identifiers are arranged in the order: L5918–L5922. This is the order assigned during production; it also reflects the actual order of the navigation tabs in the parent object. Similarly, the example for L5918 shows the 'issiblingof' catalog entries, arranged in the most logical order of progression: L5919–L5922. Digital resources should be arranged in the order that was assigned by the original producer, if it is known.

Relation description
The free-text field 'Relation > Description' is not used for most kinds of relationships. It should, however, be used if you are creating relation metadata for a collection item. In this case, you should describe why an item has been included in the collection. For example, include one or two sentences summarising how an item is different from its sibling items OR why it is relevant to the theme of a collection.

Note that the titles of related items are included in this section to solely illustrate the nature of relationships. Do not enter titles in any fields in the Relation metadata.

Audio versions
- A learning object is regarded as an audio version of another object if it contains instructional content in audio format that is not presented in audio in the original version. That is, in the original format the instructions are presented as on-screen text, not audio. For example:
  L505 Meet a scientist: virologist
  isversionof TLF-LearningObject L506 {Meet a scientist: virologist [no spoken instructions]}

Subject versions
- An item is regarded as a subject version of another item if it has been adapted from it, especially where it has substantive changes in disciplinary focus. For example, a Science learning object repurposed as a Maths object:
  L4059 Lifting loads: force
  isversionof TLF-LearningObject L1199 {Pulleys: change the force}
  L1199 Pulleys: change the force
  hasversion TLF-LearningObject L4059 {Lifting loads: force}

- In some cases, LOTE objects may form the basis of an English literacy object. For example:
  L6310 Train a sumo wrestler: sports culture in Japan
  isversionof TLF-LearningObject L649 {Train a sumo wrestler: beginner}
  L649 Train a sumo wrestler: beginner
  hasversion TLF-LearningObject L6310 {Train a sumo wrestler: sports culture in Japan}

- No 'isversionof' relation should be added between different language versions of items. For example, there is no formal relation between these two items:
  L1014 Dressing up [Chinese]
  L1022 Dressing up [Japanese]
Metadata Guidelines for Digital Content

Assessment versions

- An assessment object is regarded as a version of another learning object if the assessment version has been derived from the original object. For example:
  Wild ride: get a grip: assessment resource
  isversionof TLF-LearningObject L447 {Wild ride: get a grip}

Technical platforms and plug-ins

- An item is regarded as a new format if there are two available items with identical titles (excluding qualifiers) and learning outcomes (applies to learning objects only), but the versions are specific to operating platforms or browser plug-ins. Here is a theoretical example:

  Foo finder [Windows version]
  isformatof TLF-LearningObject Lxyzab {Foo finder [Macintosh version]}

In practice, a new format of an item often replaces an earlier, more restricted format. For example, a Flash Player version of an object may replace a Shockwave Player version that is no longer supported (withdrawn). In such cases, ‘isformatof’ should NOT be used to refer to a superseded version. The format relationship should be referenced in the version notes. See Section 2.22 for further information.

Reference links

- An item is regarded as referencing another item if it is referring to content in that item, but it is not a part of the referenced item. For example:

  L6917 Pameran
  isreferencedby TLF-Resource R7637 {Pameran: teacher resource}

  R7637 Pameran: teacher resource
  references TLF-LearningObject L6917 {Pameran}

- An item may reference physical objects that have unique identifiers. For example, a theoretical image showing zoological specimens on glass slides maintained in a collection catalogued by the Museum of Victoria:

  Glass slides of cnidarians
  references Catalog: NMV Entry: F58338

- An item may reference a website or similar identifier. For example, an item comprising a web page that solely describes an item hosted elsewhere, including a hyperlink to it. Here are theoretical examples:

  L88889 Rabbit population by season
  references Catalog: URL Entry:

  Buddies, 1983: scared of being rich
  references Catalog: URL Entry:
siblings in a series

- A series is usually defined by a publisher during the production process. Two content items are siblings if they belong to the same series, and neither item is the parent of the other. For example:

  L5908 Graph investigator: concentration
  issiblingof TLF-LearningObject L5907 Graph investigator: getting to school
  but it is NOT a sibling of L5903 Graph investigator

- Typically, such sibling items are of the same learning resource type. Each sibling should reference all other siblings in the series. For example:

  L2705 This house: settling in Port Adelaide
  issiblingof TLF-LearningObject L2706; L2707; L6359; L6360; L6361; L6362; L6363
  R6334 ‘Women’s choice’, 1975 - part 2 of 5
  issiblingof TLF-Resource R6333; R6335; R6336; R6337

series collection

- A series collection groups items developed from the same content, often identified as a series. Typically, such an item will link items of the same learning resource type. For example:

  This house: series
  references TLF-LearningObject L2705; L2706; L2707; L6359; L6360; L6361; L6362; L6363
  I think: series
  references TLF-Resource R6065; R6066 … R6077

thematic collection

- A thematic collection is a collection that illustrates a subject theme. Typically, such an item will link a range of resource types. For example:

  Life on the goldfields: Victoria and Western Australia
  references TLF-LearningObject L680; TLF-Resource R4926; R4923; R5510; R4729; R4737; R4731; R5505; R5739; R4738

release versions

Current TLF practice is not to enter data manually for the kind 'isbasedon'. Instead, all items automatically export version notes in the 'relation' metadata.

The kind 'isbasedon' is used solely for self-reference—the metadata is describing how the item is related to previous versions of itself. For example:

L370 Dorothy Griffin: great Australian women
isbasedon TLF-LearningObject
L370 Dorothy Griffin: great Australian women
• An item is regarded as a release version (of itself) if it is being released for the first time OR it has had minor revisions or corrections. If it has had substantive changes in content and is released with a different title, it is not regarded as a release version.

• Note that this is a one-way instance of the 'kind' relation. Superseded versions of items cannot have their metadata modified.

Refer to the guidelines in the next section on how to enter the version notes for each release version.

### 2.19 Version notes

This metadata may be manually entered into either of two fields:

- the standard IMS field, ie 'Relation > Description' (See Section 2.21)
- the custom TLF extension to IMS, ie 'Life cycle > Assurance > Remark'.

Current TLF practice is to enter the version notes in the field labelled 'Assurance remark'. This field will be relabelled 'Version notes'.

The TLF metadata entry system has been updated to ensure a description entered into either of the above fields is exported correctly in the IMS manifest.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Version notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 7 Relation</td>
</tr>
<tr>
<td>Definition</td>
<td>Comments stating version-specific differences.</td>
</tr>
</tbody>
</table>
| Purpose      | - To help users identify changes between versions of items.  
               - May also alert users to new features or limitations. |
| Obligation   | Mandatory |
| Examples     | L766 Animal search: is it a mammal?  
               v.4.0 Added support for Gecko-based browsers.  
               v.3.0 Includes editorial improvements.  
               v.2.0 Includes technical improvements.  
               v.1.0 First public release. |

**First publication**

L5824 Types of matter: compounds and mixtures  
 v.1.0 First public release.

L722 Body parts: heart and circulation  
 v.1.0 Originally published as part of a CD-ROM titled 'Health beats: body parts'.

L927 Down to Earth: metals matter  
 v.1.0 Originally published as a .zip file on the website of Minerals Council of Australia and also published on a CD-ROM titled 'Down to Earth'.

L6245 Viewfinder [Flash Player version]  
 v.1.0 Originally published as L582, a version requiring Adobe...
<table>
<thead>
<tr>
<th><strong>Shockwave Player. Redeveloped as a version requiring Adobe Flash Player.</strong></th>
</tr>
</thead>
</table>
| **Technical updates**  
Includes technical improvements.  
Includes technical improvements to graphs.  
Added support for Gecko-based browsers and seamless tabbing.  
Added support for Macintosh OS-X platform (first public release was Windows-only).  
File size reduced to improve load times.  
Improved sound effects.  
Restructured files to improve interoperability. |
| **Editorial updates**  
Includes editorial improvements.  
Includes minor corrections to spelling and grammar in the tutorial.  
Improved layout of text on first screen. |
| **Educational soundness updates**  
Includes educational soundness improvements. |
| **Metadata updates**  
Includes updated educational metadata.  
Includes updated contributor details in metadata.  
Retitled to include series prefix.  
Retitled. Previously published as 'The foul food maker: game'. |
2.19.1 QA guidelines for content creation for 'Version notes'

Be concise and specific. Use positive language. Focus on clear, identifiable differences.

- **Standard beginning**
  Start each paragraph with the version number of the item.
  *Correct:* 'v.2.0 Includes updated educational metadata.'
  v.1.0 Originally published as …'
  *Incorrect:* 'Originally published as … Includes updated educational metadata.'

- **Version numbers; scope**
  Summarise all changes made between release versions. For example, notes for v.3.0 should summarise all changes since v.2.0. Do not reference unreleased versions of an item, ie a minor version number such as v.2.1.2.

- **Version order**
  Add new version notes BEFORE any existing version notes, ie arrange notes in reverse chronological order. Retain all notes that apply to previously published versions of the item.

- **Level of specificity**
  Try to be relatively specific, but don't try to spell out every change.
  *Correct:* 'Includes technical improvements.'
  *Incorrect:* 'Changed launching behaviour for 'Help' button in calculation activity.'

- **Format, layout and length**
  Use a single paragraph to describe changes introduced in a new version.

**Self-contained statements**

Each paragraph should stand-alone. It should NOT refer to details in other paragraphs and it should NOT depend on context spelt out elsewhere.
2.20 Technical requirement

<table>
<thead>
<tr>
<th>Element name</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 4.4 Technical &gt; Requirement Curriculum Corporation Technical Requirement Vocabulary</td>
</tr>
<tr>
<td>Definition</td>
<td>The technology required to use this item.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To define the software environments supported by the learning object (i.e., system requirements).</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (ALL items)</td>
</tr>
</tbody>
</table>

### Examples

Example for a typical Flash learning object:

<table>
<thead>
<tr>
<th>Browsers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Internet Explorer</td>
<td>min: 7.0 (MS Windows)</td>
</tr>
<tr>
<td>Firefox</td>
<td>min: 2.0 (MS Windows)</td>
</tr>
<tr>
<td>Netscape Communicator</td>
<td>min:</td>
</tr>
<tr>
<td>Safari</td>
<td>min: 2.0 (Mac OS)</td>
</tr>
<tr>
<td>Opera</td>
<td>min:</td>
</tr>
<tr>
<td>Mozilla</td>
<td>min:</td>
</tr>
<tr>
<td>Amaya</td>
<td>min:</td>
</tr>
<tr>
<td>Any</td>
<td>min:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plug-ins</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adobe Flash Player</td>
<td>min:</td>
</tr>
<tr>
<td>Adobe Shockwave Player</td>
<td>min:</td>
</tr>
<tr>
<td>Macromedia Flash Player</td>
<td>min:</td>
</tr>
<tr>
<td>Macromedia Shockwave Player</td>
<td>min:</td>
</tr>
<tr>
<td>Java Plug-in</td>
<td>min:</td>
</tr>
<tr>
<td>QuickTime Player</td>
<td>min:</td>
</tr>
<tr>
<td>Adobe Reader</td>
<td>min:</td>
</tr>
<tr>
<td>Adobe SVO Viewer</td>
<td>min:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Systems</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mac OS</td>
<td>min:</td>
</tr>
<tr>
<td>MS Windows</td>
<td>min: 2000</td>
</tr>
<tr>
<td>Mac OS</td>
<td>min:</td>
</tr>
<tr>
<td>None</td>
<td>min:</td>
</tr>
<tr>
<td>PC DOS</td>
<td>min:</td>
</tr>
<tr>
<td>Unix</td>
<td>min:</td>
</tr>
</tbody>
</table>

Example for a typical moving image (digital resource):
2.20.1 Guidelines for content creation for 'Requirement'

TLF publishes a variety of content types. Examples include Flash-based learning objects and digital resources such as moving images. Each type of content is expected to conform to a specific set of technical requirements. The technical metadata is modified according to the outcomes of in-house technical testing.

The 'Requirement' element consists of the following three sub-elements: Browsers, Plug-ins and Operating systems. For each sub-element, first check the applicable items in the list. Then enter the relevant data in the Minimum version and Maximum version fields.

The examples provided in Section 2.23 show the typical values for a Flash-based learning object and a moving image digital resource.

2.21 Other platform requirements

<table>
<thead>
<tr>
<th>Element name</th>
<th>Other platform requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 4.6 Technical &gt; Other platform requirements</td>
</tr>
<tr>
<td>Definition</td>
<td>Notes on technical issues that may affect performance due to particular combinations of operating platforms, hardware, software or network conditions.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To provide the technical factors that may influence operation of an item within a specific operating environment.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (where relevant)</td>
</tr>
<tr>
<td>Examples: Slow load time</td>
<td>Initial load time may exceed 10 seconds on a dedicated 64 kbps connection due to the use of rich media content. Load time on some screens may exceed 10 seconds on a dedicated 64 kbps connection due to the use of rich media content.</td>
</tr>
<tr>
<td><strong>Initial load time and load time on some screens may exceed 10 seconds on a dedicated 64 kbps connection due to the use of rich media content.</strong></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
| **3D rendering**  
This object uses 3D rendering. Performance may vary depending on the video card installed in your computer. For more information, refer to Adobe Director TechNote 15428 at http://www.adobe.com/go/tn_15428/ |
| **Other rendering issues**  
A high-level processor (CPU) may be required to correctly display graphics due to complex computations. |
| **Browser support unreliable**  
This object may display incorrectly when viewed with a Safari browser on a Mac OS-X platform. For more information, refer to Adobe Shockwave Player TechNote f6b002d1 at http://www.adobe.com/go/f6b002d1/ |
| **Special language fonts needed**  
Microsoft East Asian language fonts must be installed on the user's computer for correct operation of this content. For installation notes, refer to Microsoft Windows ‘Help’. |
| **Unstable performance when switching between applications**  
This object may display incorrectly if viewed after switching to another software application. |
| **Unreliable performance when parsing parameters**  
This object may display incorrectly when viewed with a Safari browser on a Mac OS-X platform due to failure in parsing parameters for the Java applet. |
| **Warning of possible side effects**  
This object contains flashing animations that may cause visual disturbance and may not be suitable for users subject to seizures or epilepsy. |
| **Main content is hosted elsewhere**  
Requires an internet connection to access resources on an external website. |
2.21.1 Guidelines for content creation for 'Other platform requirement'
Be concise and specific. Use positive language. Focus on clear, identifiable issues and solutions.
- If possible, use a standard statement from the list of examples above.
- Refer users to system help files or web pages maintained by major vendors where relevant.

2.22 Access profile

<table>
<thead>
<tr>
<th>Element name</th>
<th>Access profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'accessibility restrictions'); TLF Access profile vocabulary</td>
</tr>
<tr>
<td>Definition</td>
<td>The access profiles that the item will support. Profiles are defined in The Le@rning Federation Accessibility Specification.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To identify features that facilitate or impede access to the content by users.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Mandatory (where relevant)</td>
</tr>
<tr>
<td>Example</td>
<td>Example for a learning object tailored to include audio equivalents and other components to facilitate access to content: Hearing independence; Device independence, Colour independence Example for an image (digital resource) that has no audio content and has poor colour contrast between photographic subjects: Hearing independence; Device independence</td>
</tr>
</tbody>
</table>
2.22.1 Guidelines for content creation for 'Access profile'

- Enter the access profiles that the item supports (as verified through technical testing).
- The ‘Learning resource type’ will influence the number of access profiles that may be supported.
- All items with content authored by TLF should include the value ‘Generic’ if they support accessibility principles, whether or not they provide support for any specific access profiles. Extant content should be evaluated on a case-by-case basis.
- Where TLF is publishing a metadata record independently from the content it refers to, then TLF does not assess or record compliance with access profiles. For example, the following item has a metadata record published by TLF; the actual film clip referenced in the metadata record resides on a linked website, australianscreen online, which is hosted and maintained by the National Film and Sound Archive.

R7271 Mad Max, 1979: The Interceptor

Note: The majority of TLF content items typically meet the requirements for Colour independence, Device independence and Hearing independence. However, these values should only be entered if they have been verified through technical and accessibility testing.

### 2.23 Rights

<table>
<thead>
<tr>
<th>Element name</th>
<th>Rights</th>
</tr>
</thead>
</table>
| Authority    | LOM 6.3 Rights > Description  
DCMES 1.1 Rights |
| Definition   | A text description of intellectual property rights associated with a digital item. |
| Purpose      | To alert users to restrictions on use of the item as set by the copyright owners. |
| Obligation   | Mandatory (ALL items) |
| Examples     | Example for a learning object developed and first published by The Le@rning Federation:  
© Curriculum Corporation, 2009, except where indicated under Acknowledgements  
Example for a learning object published but not developed by The Le@rning Federation: L7562 Colours of objects  
© Litespeed Education Pte, 2007, except where indicated under Acknowledgements  
Example for a digital resource published in collaboration with the National Film and Sound Archive:  
© Curriculum Corporation and australianscreen online, 2009, except where indicated under Acknowledgements |
### 2.23.1 Guidelines for content creation for 'Rights'

The same rights statement should be entered in the Rights field for ALL learning objects developed by TLF. (See Section 2.26.) The year specified should be the year in which most development took place.

For extant content, the wording of the rights statement will depend on the acknowledgement requirements stated in the formal agreement. Refer to the formal agreement.

Use the copyright symbol © rather than the word 'Copyright'.

**Note:** The rights statement displayed in the index.html is drawn directly from the Rights field in the metadata, using an include tag.

### 2.24 Content/Concept

**Note:** THE VOCABULARY FOR THIS ELEMENT IS SUPERSEDED. TLF DOES NOT ACTIVELY SUPPORT THIS ELEMENT.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Content/Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'idea')</td>
</tr>
<tr>
<td></td>
<td>TLF Concept vocabulary</td>
</tr>
<tr>
<td>Definition</td>
<td>Controlled keywords or phrases that describe a significant component of a curriculum area.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To focus discoverability by assigning curriculum terms commonly used by teachers in Australia.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Optional</td>
</tr>
<tr>
<td>Examples</td>
<td>Example for an upper primary learning object about reactions between cooking ingredients that cause a chemical change, such as acid-base reactions: Chemical change; Chemical reactions; Simple experiments; Hypothesis; Observation; Predictions; Materials</td>
</tr>
</tbody>
</table>
2.24.1 Guidelines for content creation for 'Content/Concept'

Treat this subject-related field as midway between the high-level curriculum 'strand' values and the more specific 'topic' terms drawn from the ScOT thesaurus. Note that the Content/Concept vocabulary is an amalgamation of terms drawn from several Australian states. The vocabulary terms may be similar, apparently overlapping or occur at different levels of specificity. The Content/Concept vocabulary has a greater emphasis on 'processes' than the ScOT thesaurus.

- Include general and specific terms as is relevant.
- Avoid unnecessary duplication, e.g. 'Directions' and 'Direction'.
- Be consistent across learning objects where possible. That is, use one form of a term consistently.

2.25 Learning design

NOTE: THE VOCABULARY FOR THIS ELEMENT IS SUPERSEDED. TLF DOES NOT ACTIVELY SUPPORT THIS ELEMENT.

<table>
<thead>
<tr>
<th>Element name</th>
<th>Learning design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'educational objective') TLF; Learning Design Vocabulary</td>
</tr>
<tr>
<td>Definition</td>
<td>Describes the teaching methods and ways of presenting learning materials and experiences that facilitate a particular kind of learning interaction, process or outcomes.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To focus discoverability by assigning controlled terms.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Optional</td>
</tr>
<tr>
<td>Examples</td>
<td>Example for a lower primary learning object that uses gardening principles to illustrate soil ecology: Experiential learning; Independent learning; Problem solving; Visual learning</td>
</tr>
</tbody>
</table>

2.25.1 Guidelines for content creation for 'Learning design'

There are just a handful of terms that apply to most learning objects. Indeed, an identical set of terms may apply across a large group of learning objects. This commonality is not a problem; this field distinguishes TLF learning objects from other types of items indexed in local repositories.

- Most common values (in alphabetical order) are 'Experiential learning'; 'Independent learning'; 'Problem solving' and 'Visual learning'.
- Terms that occur occasionally are 'Collaborative learning' and 'Games'.
- Some terms, by definition, usually apply to offline activities. Therefore, they would rarely be applied to online learning objects.
### 2.26 Skills/Process

**NOTE: THE VOCABULARY FOR THIS ELEMENT IS SUPERSEDED. TLF DOES NOT ACTIVELY SUPPORT THIS ELEMENT.**

<table>
<thead>
<tr>
<th>Element name</th>
<th>Skills/Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>LOM 9 Classification (9.1 Purpose = 'skill level') Bloom's Taxonomy</td>
</tr>
<tr>
<td>Definition</td>
<td>Describes the learning skills and process learning outcomes supported by the application of the item.</td>
</tr>
<tr>
<td>Purpose</td>
<td>To focus discoverability according to well-established criteria for cognitive processes.</td>
</tr>
<tr>
<td>Obligation</td>
<td>Optional</td>
</tr>
<tr>
<td>Examples</td>
<td>Typical learning objects for the middle years encompass the first four cognitive domain levels of Bloom's Taxonomy: Knowledge; Comprehension; Application; Analysis</td>
</tr>
</tbody>
</table>

#### 2.26.1 Guidelines for content creation for 'Skills/Process'

Bloom's Taxonomy is a classification of learning levels. This metadata element is drawn from the six values in the cognitive domain of Bloom's Taxonomy.

Any combination of the six values for this element is theoretically possible. However, when selecting values, be aware of the following common patterns:

- Lower values tend to apply to learning objects targeted at the early schooling years.
- The highest possible relevant value should be applied to the learning object first. Generally, all Bloom values below that level will also apply to the object. It would be rare for a lower Bloom value to be 'skipped' intentionally.
### 3 Examples

These examples are actual items that have been published by TLF. Items are referred to by their 'TLF Identifier' (TLF-ID) and title. Further examples including encoding are published on the TLF website at www.thelearningfederation.edu.au/metadata

#### L2531 Air pressure

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element name</th>
<th>Element value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>Air pressure</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>Use an air chamber to model the movement of particles. Investigate the speed and collisions of air particles with each other, the chamber wall and other objects in their path. Change the temperature, pressure and volume of the air chamber. Observe the behaviour of the particles and answer questions. For example, decrease the volume of the air chamber and identify the effect on air pressure. Use gauges to measure temperature and pressure. Look at units commonly used to measure temperature and pressure. This learning object is a combination of four objects in the same series.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea…</td>
<td>ScOT {Topic} Air pressure; Atmospheres; Barometers; Kinetic energy; Molecules; Particles; Temperature; Thermometers; Volume (Geometric concepts)</td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Air pressure; Atmospheres; Barometers; Kinetic energy; Molecules; Particle model; Particles; Temperature; Thermometers; Volume (Geometric concepts)</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Discipline…</td>
<td>edna-kla {Learning Area} Science</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Discipline…</td>
<td>Strand Earth and beyond; Energy and change</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational</td>
<td>Key learning objectives • Students use a particle model to explore the meaning and effects of air pressure. • Students relate air pressure to temperature. • Students predict how air pressure in a container will be affected by changes in temperature, volume and number of particles in the container. • Students identify how changes in air pressure affect the size of elastic objects such as balloons. • Students interpret gauges displaying measurements of temperature and pressure in standard units (degrees Celsius and atmospheres).</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational</td>
<td>objective… Educational value • Demonstrates interactions between temperature, pressure and volume in a gas. • Uses a simulator to demonstrate the particle model of a gas.</td>
</tr>
</tbody>
</table>
Simulates the effects of changes in temperature and volume on the air pressure in a chamber.
Allows students to adjust variables, observe results and measure effects.
Introduces students to standard units of measurement for temperature and air pressure.
Tests understanding of key concepts through multiple-choice questions.

<table>
<thead>
<tr>
<th>9</th>
<th>Educational &gt; Resource Type &gt; Student activity</th>
<th>Interactives; Analysis; Experiment; Modelling; Multiple choice questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5</td>
<td>Educational &gt; Intended end user role</td>
<td>Learner</td>
</tr>
<tr>
<td>5.6</td>
<td>Educational &gt; Context &lt;br&gt; {Audience sector}</td>
<td>School</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational level… &lt;br&gt; {Audience: edna User level}</td>
<td>5; 6; 7; 8</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Management &gt; Life cycle &gt; Contribute &gt; Role</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>2.3.2</td>
<td>Management &gt; Life cycle &gt; Contribute &gt; Entity [vCard]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1st CONTRIBUTOR [Role = Script writer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Rod Rees</td>
</tr>
<tr>
<td>Address: 'City' = Blackburn; 'State' = VIC; 'Postcode' = 3130; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation = Rees Films Pty Ltd</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd CONTRIBUTOR [Role = Subject matter expert]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Rod Rees</td>
</tr>
<tr>
<td>Address: 'City' = Blackburn; 'State' = VIC; 'Postcode' = 3130; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation = Rees Films Pty Ltd</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3rd CONTRIBUTOR [Role = Educational validator]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Denis Goodrum</td>
</tr>
<tr>
<td>Address: 'City' = Canberra; 'State' = ACT; 'Postcode' = 2600; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation = Australian National University</td>
</tr>
<tr>
<td>URL = <a href="http://www.anu.edu.au/">http://www.anu.edu.au/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4th CONTRIBUTOR [Role = Technical implementer]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Address: 'City' = Collingwood; 'State' = VIC; 'Postcode' = 3066; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation = CSIRO Publishing</td>
</tr>
<tr>
<td>URL = <a href="http://www.publish.csiro.au/">http://www.publish.csiro.au/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5th CONTRIBUTOR [Role = Publisher]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Address: 'City' = Melbourne; 'State' = VIC; 'Postcode' = 3000; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation = Curriculum Corporation; The Le@rning Federation</td>
</tr>
<tr>
<td>URL = <a href="http://www.thelearningfederation.edu.au/">http://www.thelearningfederation.edu.au/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kind: haspart</td>
<td>Catalog: TLF-LearningObject</td>
</tr>
<tr>
<td>Kind: haspart</td>
<td>Catalog: TLF-LearningObject</td>
</tr>
<tr>
<td>Kind: haspart</td>
<td>Catalog: TLF-LearningObject</td>
</tr>
<tr>
<td>Kind: haspart</td>
<td>Catalog: TLF-LearningObject</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7.2.2</th>
<th>Relation &gt; Resource &gt; Description {version history}</th>
</tr>
</thead>
<tbody>
<tr>
<td>v.2.0 Includes updates to educational metadata.</td>
<td></td>
</tr>
<tr>
<td>v.1.0 First public release.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.4.1.1</th>
<th>Technical &gt; Requirement &gt; Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st REQUIREMENT</td>
<td></td>
</tr>
<tr>
<td>Type = Operating system</td>
<td></td>
</tr>
<tr>
<td>Name = MS-Windows</td>
<td></td>
</tr>
<tr>
<td>Minimum version = 2000</td>
<td></td>
</tr>
<tr>
<td>Maximum version = XP</td>
<td></td>
</tr>
</tbody>
</table>

| 4.4.1.2 | Technical > Requirement > Name |

| 2nd REQUIREMENT |
| Type = Operating system |
| Name = MacOS |
| Minimum version = X |

| 4.4.1.3 | Technical > Requirement > Minimum version |

<p>| 3rd REQUIREMENT |</p>
<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Minimum version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browser</td>
<td>Microsoft Internet Explorer</td>
<td>6.0 (MS-Windows)</td>
</tr>
<tr>
<td>Browser</td>
<td>Firefox</td>
<td>1.0 (MS-Windows)</td>
</tr>
<tr>
<td>Browser</td>
<td>Safari</td>
<td>1.2 (MacOS)</td>
</tr>
<tr>
<td>Plug-in</td>
<td>Adobe Flash Player</td>
<td>8</td>
</tr>
</tbody>
</table>

| 5.2 | Educational > Learning resource type | Interactive resource |
| 9 | Classification > Accessibility restrictions... TLF Access Profile | Hearing independence; Device independence, Colour independence |
| 6.3 | Rights > Description | © Curriculum Corporation, 2005, except where indicated under Acknowledgements |
**L5861 Scatter plots: foot length and hand span**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>Scatter plots: foot length and hand span</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>Find out what a scatter plot is and how it can be used to investigate relationships between two variables. Analyse data for a pair of variables: hand span and foot length. Enter your personal data and plot it with other data on a graph. Use a line of best fit to identify if there is a positive or negative relationship between the two variables. This learning object is one in a series of five objects.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea…</td>
<td>Axes; Continuous data; Data analysis; Scale (Mathematics); Scatter graphs</td>
</tr>
<tr>
<td></td>
<td>ScOT (Topic)</td>
<td>Mathematics</td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Axes; Continuous data; Data analysis; Line of best fit; Scale (Mathematics); Scatter graphs</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Discipline…</td>
<td>Chance and data</td>
</tr>
<tr>
<td></td>
<td>edna-kla (Learning Area)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Strand</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational objective… Key learning objective</td>
<td>• Students explore the characteristics and uses of scatter plots. • Students use a scatter plot to identify if there is a positive or negative relationship between a pair of variables. • Students interpret bivariate data in tables and graphs.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational objective… Educational value</td>
<td>• Introduces the features and uses of scatter plots. • Helps students to choose axes and scales while constructing a scatter plot. • Enables entry of personal data for a statistical investigation. • Dynamically displays data values on a scatter plot. • Relates experimental conclusions to patterns in scatter plots.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational objective… Student activity</td>
<td>Interacts; Analysis; Data manipulation and interpretation; Estimation; Experiment; Modelling</td>
</tr>
<tr>
<td>5.5</td>
<td>Educational &gt; Intended end user role</td>
<td>Learner</td>
</tr>
</tbody>
</table>
| 5.6 | Educational > Context  
{Audience sector} | School |
|---|---|---|
| 9 | Classification > Educational level…  
{Audience: edna User level} | 5; 6; 7; 8; 9 |
| 2.3.1 | Management > Life cycle > Contribute > Role  
Management > Life cycle > Contribute > Entity [vCard] | 1<sup>st</sup> CONTRIBUTOR [Role = Script writer]  
Name: Michael Wagner  
Address:  
‘City’ = Box Hill South; ‘State’ = VIC; ‘Postcode’ =3128; ‘Country’ = Australia  
Organisation = Godwin + Wagner |
| 2.3.2 | 2<sup>nd</sup> CONTRIBUTOR [Role = Subject matter expert]  
Name: Howard Reeves  
Address:  
‘City’ = Lindisfarne; ‘State’ = TAS; ‘Postcode’ =7015; ‘Country’ = Australia  
Organisation = Rees Films Pty Ltd |
| | 3<sup>rd</sup> CONTRIBUTOR [Role = Educational validator]  
Name: Graham Jones  
Address:  
‘City’ = Broadbeach; ‘State’ = QLD; ‘Postcode’ = 4218; ‘Country’ = Australia |
| | 4<sup>th</sup> CONTRIBUTOR [Role = Technical implementer]  
Address:  
‘City’ = Collingwood; ‘State’ = VIC; ‘Postcode’ = 3066; ‘Country’ = Australia  
Organisation = CSIRO Publishing  
URL = http://www.publish.csiro.au/ |
| | 5<sup>th</sup> CONTRIBUTOR [Role = Publisher]  
Address:  
‘City’ = Melbourne; ‘State’ = VIC; ‘Postcode’ = 3000; ‘Country’ = Australia  
Organisation = Curriculum Corporation; The Le@rning Federation  
URL = http://www.thelearningfederation.edu.au/ |
| 7 | Relation | Kind: ispartof  
Catalog: TLF- LearningObject  
Entry: L5857  
Kind: issiblingof  
Catalog: TLF- LearningObject  
Entry: L5858  
Kind: issiblingof  
Catalog: TLF- LearningObject  
Entry: L5859  
Kind: issiblingof  
Catalog: TLF- LearningObject  
Entry: L5860  
Kind: issiblingof  
Catalog: TLF- LearningObject  
Entry: L5862 |
| 7.2.2 | Relation > Resource > Description  
{version history} | v.1.0 First public release. |
| 4.4.1.1 | Technical > Requirement > Type  
Technical > Requirement > Name  
Technical > Requirement > Minimum version  
Technical > Requirement > | 1<sup>st</sup> REQUIREMENT  
Type = Operating system  
Name = MS-Windows  
Minimum version = 2000  
Maximum version = XP |
| 4.4.1.4 | Maximum version | 2\(^{nd}\) REQUIREMENT  
Type = Operating system  
Name = MacOS  
Minimum version = X |
|---|---|---|
|   |   | 3\(^{rd}\) REQUIREMENT  
Type = Browser  
Name = Microsoft Internet Explorer  
Minimum version = 6.0 (MS-Windows) |
|   |   | 4\(^{th}\) REQUIREMENT  
Type = Browser  
Name = Firefox  
Minimum version = 1.0 (MS-Windows) |
|   |   | 5\(^{th}\) REQUIREMENT  
Type = Browser  
Name = Safari  
Minimum version = 1.2 (MacOS) |
|   |   | 6\(^{th}\) REQUIREMENT  
Type = Plug-in  
Name = Adobe Flash Player  
Minimum version = 8 |

<table>
<thead>
<tr>
<th>5.2</th>
<th>Educational &gt; Learning resource type</th>
<th>Interactive resource</th>
</tr>
</thead>
</table>
| 9 | Classification > Accessibility restrictions…  
TLF Access Profile | Hearing independence; Device independence, Colour independence |

| 6.3 | Rights > Description | © Curriculum Corporation, 2006, except where indicated under Acknowledgements |
## L6559 Exploring the Pythagorean theorem

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>Exploring the Pythagorean theorem</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>Adjust the dimensions of a right-angled triangle. Calculate the area of squares bordering each side of the triangle. Notice that the area of the square bordering the hypotenuse is equal to the sum of the areas of the squares bordering the other two sides. Watch a video showing how Pythagoras's theorem is used to determine the amount of roofing materials needed when designing buildings.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea… ScOT (Topic)</td>
<td>Area; Hypotenuse; Length; Pythagoras' theorem; Right angled triangles; Roofs; Sides</td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Area; Building (Engineering); Hypotenuse; Length; Pythagoras' theorem; Right angled triangles; Roofs; Sides</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; discipline… edna-kla (Learning Area)</td>
<td>Mathematics</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; discipline… Strand</td>
<td>Measurement; Space</td>
</tr>
</tbody>
</table>
| 9          | Classification > Educational objective… Key learning objective | • Students explore Pythagoras's theorem.  
• Students relate the length of sides in a right-angled triangle to Pythagoras's theorem. |
| 9          | Classification > Educational objective… Educational value | • Demonstrates Pythagoras's theorem and its applications to calculating side lengths of a triangle.  
• Dynamically displays the area of squares bordering a right-angled triangle with movable vertices.  
• Includes the formula needed to calculate the length of a side of a right-angled triangle.  
• Includes a video illustrating application of Pythagoras's theorem in building design and construction. |
| 9          | Educational > educational objective… Student activity | Interactives; Analysis; Experiment; Modelling |
| 5.5        | Educational > Intended end user role | Learner |
| 5.6        | Educational > Context (Audience sector) | School |
| 9          | Classification > Educational level… | 5; 6; 7; 8; 9 |
### Metadata Guidelines for Digital Content

<table>
<thead>
<tr>
<th>(Audience: edna User level)</th>
</tr>
</thead>
</table>

#### 2.3.1 Management > Life cycle > Contribute > Role

1st CONTRIBUTOR [Role = Author]
- **Address:**
  - 'City' = Edmonton; 'State' = Alberta; 'Postcode' = T5J 5E6; 'Country' = Canada
  - Organisation = Alberta Education; Learning Technologies Branch
  - URL = http://www.learnalberta.ca/

2nd CONTRIBUTOR [Role = Technical implementer]
- **Address:**
  - 'City' = Edmonton; 'State' = Alberta; 'Postcode' = T5J 5E6; 'Country' = Canada
  - Organisation = Alberta Education; Learning Technologies Branch
  - URL = http://www.learnalberta.ca/

3rd CONTRIBUTOR [Role = Publisher]
- **Address:**
  - 'City' = Melbourne; 'State' = VIC; 'Postcode' = 3000; 'Country' = Australia
  - Organisation = Curriculum Corporation; The Le@rning Federation
  - URL = http://www.thelearningfederation.edu.au/

#### 7.2.2 Relation > Resource > Description

Originally published online via the LearnAlberta.ca website as part of a series titled 'Junior High Math Interactives' produced by Alberta Education.

#### 4.4.1.1 Technical > Requirement > Type

1st REQUIREMENT
- **Type** = Operating system
- **Name** = MS-Windows
- Minimum version = 2000
- Maximum version = XP

2nd REQUIREMENT
- **Type** = Operating system
- **Name** = MacOS
- Minimum version = X

3rd REQUIREMENT
- **Type** = Browser
  - **Name** = Microsoft Internet Explorer
  - Minimum version = 6.0 (MS-Windows)

4th REQUIREMENT
- **Type** = Browser
  - **Name** = Firefox
  - Minimum version = 1.0 (MS-Window)

5th REQUIREMENT
- **Type** = Browser
  - **Name** = Safari
  - Minimum version = 1.2 (MacOS)

6th REQUIREMENT
- **Type** = Plug-in
  - **Name** = Adobe Flash Player
  - Minimum version = 8
|   |   | 7th REQUIREMENT  
|   |   | Type = Plug-in  
|   |   | Name = QuickTime Player  
|   |   | Minimum version = 6.5  
| 4.6 | Technical > Other platform requirements | Load time on some screens may exceed 10 seconds on a dedicated 64 kbps connection due to the use of rich media content.  
| 5.2 | Educational > Learning resource type | Interactive resource  
| 9 | Classification > Accessibility restrictions… TLF Access Profile | Colour independence  
| 6.3 | Rights > Description | © 2003 Alberta Education   |
**L2711 Going to school: two cities of the world**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>Going to school: two cities of the world</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>Find out what life is like for students at schools in other places. Explore an urban school in Western Australia and another in Copenhagen, Denmark. Identify similarities and differences between school life in the two cities. Compare life at the two schools with your own school experiences. For example, note what type of clothing is worn to suit the climate. This learning object is one in a series of three objects.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea… ScOT (Topic)</td>
<td>Cultural identity; Personal identity; Schools</td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Cultural identity; Personal identity; School life; Schools</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea… ISO 3166 (Spatial coverage)</td>
<td>Country: Australia State: WA Country: Denmark</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; discipline… edna-kla (Learning Area)</td>
<td>Studies of Society and Environment</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational objective… Key learning objective</td>
<td>• Students explore school life in two urban locations in different countries and compare with their own experiences. • Students describe how social and environmental factors may influence personal identity.</td>
</tr>
<tr>
<td>5.5</td>
<td>Educational &gt; Intended end user role</td>
<td>• Learner</td>
</tr>
<tr>
<td>5.6</td>
<td>Educational &gt; Context {Audience sector}</td>
<td>• School</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational level… {Audience: edna User level}</td>
<td>3; 4</td>
</tr>
</tbody>
</table>

**Management > Life cycle > Contribute > Role**

1st CONTRIBUTOR [Role = Script writer]
Name: Michael Wagner
Address: 'City' = Box Hill South; 'State' = VIC; 'Postcode' = 3128; 'Country' = Australia
Organisation = Godwin + Wagner

2nd CONTRIBUTOR [Role = Subject matter expert]
<table>
<thead>
<tr>
<th>7</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4.1.1</td>
<td>Technical &gt; Requirement &gt; Type</td>
</tr>
<tr>
<td>4.4.1.2</td>
<td>Technical &gt; Requirement &gt; Name</td>
</tr>
<tr>
<td>4.4.1.3</td>
<td>Technical &gt; Requirement &gt; Minimum version</td>
</tr>
<tr>
<td>4.4.1.4</td>
<td>Technical &gt; Requirement &gt; Maximum version</td>
</tr>
</tbody>
</table>

### 1st REQUIREMENT
Type = Operating system
Name = MS-Windows
Minimum version = 2000
Maximum version = XP

### 2nd REQUIREMENT
Type = Operating system
Name = MacOS
Minimum version = X

### 3rd REQUIREMENT
Type = Browser
Name = Microsoft Internet Explorer
Minimum version = 6.0 (MS-Windows)

### 4th REQUIREMENT
Type = Browser
Name = Firefox
Minimum version = 1.0 (MS-Windows)

---

Name: Howard Reeves
Address: 'City' = Lindisfarne; 'State' = TAS; 'Postcode' = 7015; 'Country' = Australia
Organisation = Rees Films Pty Ltd

3rd CONTRIBUTOR [Role = Educational validator]
Name: Graham Jones
Address: 'City' = Broadbeach; 'State' = QLD; 'Postcode' = 4218; 'Country' = Australia

4th CONTRIBUTOR [Role = Technical implementer]
Address: 'City' = Collingwood; 'State' = VIC; 'Postcode' = 3066; 'Country' = Australia
Organisation = CSIRO Publishing
URL = http://www.publish.csiro.au/

5th CONTRIBUTOR [Role = Publisher]
Address: 'City' = Melbourne; 'State' = VIC; 'Postcode' = 3000; 'Country' = Australia
Organisation = Curriculum Corporation; The Le@rning Federation
URL = http://www.thelearningfederation.edu.au/

7 Relation Kind: ispartof       Catalog: TLF- LearningObject   Entry: L5857
Kind: issiblingof       Catalog: TLF- LearningObject   Entry: L5858
Kind: issiblingof       Catalog: TLF- LearningObject   Entry: L5859
Kind: issiblingof       Catalog: TLF- LearningObject   Entry: L5860
Kind: issiblingof       Catalog: TLF- LearningObject   Entry: L5862

7.2.2 Relation > Resource > Description  
{version history}

v.2.0 Updated contributor details, rights statement and spatial coverage in the metadata.
v.1.0 First public release.
### Metadata Guidelines for Digital Content

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element Name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th REQUIREMENT</td>
<td>Type = Browser</td>
<td>Name = Safari</td>
</tr>
<tr>
<td>6th REQUIREMENT</td>
<td>Type = Plug-in</td>
<td>Name = Adobe Flash Player</td>
</tr>
<tr>
<td>5.2</td>
<td>Educational &gt; Learning resource type</td>
<td>Interactive resource</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Accessibility restrictions... TLF Access Profile</td>
<td>Hearing independence; Device independence, Colour independence</td>
</tr>
<tr>
<td>6.3</td>
<td>Rights &gt; Description</td>
<td>© Curriculum Corporation, 2006, except where indicated under Acknowledgements</td>
</tr>
</tbody>
</table>

### R6025 Filming a 'hero' shot on location, 2004

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element Name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>Filming a 'hero' shot on location, 2004</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>This is a colour photograph of a documentary crew filming a 'hero' shot of actor Billie Brown as the acclaimed scientist Hedley Marston in a wheat field near Robe, in south-eastern South Australia.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea... ScOT (Topic)</td>
<td>Camera shots; Cinematography; Film making</td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Camera shots; Cinematography; Film making; Hero shots</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea... ISO 3166 (Spatial coverage)</td>
<td>Country: Australia  State: SA;</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea... DCMI Point (Spatial coverage)</td>
<td>Name: Robe; Longitude: 139.75000; Latitude: -37.16000;</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea... DCMI Period (Temporal coverage)</td>
<td>Start: 2002  End: 2004  Scheme: W3C-DTF</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Educational objective… Educational value</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>• In this &quot;hero&quot; shot for the dramatised documentary 'Silent Storm', actor Billie Brown is filmed in a wheat field from a low angle, with his back to the sun and mainly cloudy sky in shot, thus creating an impression of the importance and stature of this main character as the hero of the story.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 'Silent Storm' was a film about a real-life scientist with sections that re-created dramatic scenes from his life. While many studio portrait photographs of Hedley Marston were made available from the Commonwealth Scientific and Industrial Research Organisation archives, a 7-second shot of the scientist was all that existed in motion picture. Consequently the decision was made to select an actor who could create an impression of the character of this man. The actor, Billie Brown, is wearing clothes of the 1950s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• This documentary was shot as a dramatised documentary because the main character had been dead for more than 40 years, and Billie Brown bore a striking resemblance to the scientist. He captured not only the look and stature of Marston, but the personality and character as well. Billie Brown is a distinguished character actor who has spent many years working for the Royal Shakespeare Company and is well known for his ability to 'get inside' a character.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The director, Peter Butt, shown in this photograph crouching down to direct the action, wanted a 'filmic' look for the production and worked with cinematographer Calvin Gardiner on a lighting style and colour-grading solution to make digital video look like 35-mm colour film shot in the 1950s. The filmmakers also used super 8 movie film, traditionally used as a home-video movie format, to bring the audience closer to the character of Marston.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2.3.1 | Life cycle > Contribute > Role |
|       | 1st CONTRIBUTOR [Role = Content provider] |
| 2.3.2 | Life cycle > Contribute > Entity [vCard] | Address: 'City' = Lindfield; 'State' = NSW; 'Postcode' = 2070; 'Country' = Australia 
Organisation = Film Australia 
| 2nd CONTRIBUTOR [Role = Copyright owner] | Address: 'City' = Lindfield; 'State' = NSW; 'Postcode' = 2070; 'Country' = Australia 
Organisation = Film Australia 
| 3rd CONTRIBUTOR [Role = Author] | Role description: photographer 
Name: Rob McAuley 
(2.3.3) Date: 2004 |
| 4th CONTRIBUTOR [Role = Publisher] | Address: 'City' = Melbourne; 'State' = VIC; 'Postcode' = 3000; 'Country' = Australia 
Organisation = Curriculum Corporation; The Le@rning Federation 
URL = http://www.thelearningfederation.edu.au/ |

| 4.4.1.1 | Technical > Requirement > Type | 1st REQUIREMENT 
Type = Operating system 
Name = MS-Windows 
Minimum version = 2000 
Maximum version = XP |
| 4.4.1.2 | Technical > Requirement > Name | 2nd REQUIREMENT 
Type = Operating system 
Name = MacOS 
Minimum version = X |
| 4.4.1.3 | Technical > Requirement > Minimum version | 3rd REQUIREMENT 
Type = Browser 
Name = Microsoft Internet Explorer 
Minimum version = 6.0 (MS-Windows) |
| 4.4.1.4 | Technical > Requirement > Maximum version | 4th REQUIREMENT 
Type = Browser 
Name = Firefox 
Minimum version = 1.0 (MS-Windows) |
| 4.4.1.5 | Technical > Requirement > Access profile | 5th REQUIREMENT 
Type = Browser 
Name = Safari 
Minimum version = 1.2 (MacOS) |

| 5.2 | Educational > Learning resource Type | Still image |
| 9 | Classification > Accessibility restrictions…TLF Access Profile | Hearing independence; Device independence, Colour independence |
| 6.3 | Rights > Description | © Curriculum Corporation and Film Australia, 2007, except where indicated under Acknowledgements |
### R6414 'Faces of Australia', 1968 - part 29 of 34

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element Name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>'Faces of Australia', 1968 - part 29 of 34</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>This is a clip featuring horse racing in the 1960s. It is taken from 'Faces of Australia', a 1968 colour documentary film with commentary. The clip comprises a sequence of close-up and medium shots at an unidentified race track. Included are shots of horses being paraded in the mounting yard, jockeys climbing aboard, bets being placed with bookmakers, the start of a race, and a man squatting, studying a newspaper, with what could be discarded betting tickets around him.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea…</td>
<td>Gambling; Horseracing</td>
</tr>
<tr>
<td></td>
<td>ScOT {Topic}</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Gambling; Horseracing; Melbourne Cup</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea…</td>
<td>Country: Australia   State: VIC</td>
</tr>
<tr>
<td></td>
<td>ISO 3166</td>
<td>{Spatial coverage}</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea…</td>
<td>Name: Flemington Racecourse Longitude: 144.90666;; Latitude: -37.78780</td>
</tr>
<tr>
<td></td>
<td>DCMI Point {Spatial coverage}</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DCMI Period {Temporal coverage}</td>
<td>Scheme: W3C-DTF</td>
</tr>
</tbody>
</table>
| 9          | Classification > Educational objective… Educational value | • Horse racing is the second most popular spectator sport in Australia (after Australian Rules football). A survey in 2002 indicated that almost 2 million people had attended a race meeting at least once in the previous 12 months.  
• The clip shows thoroughbred racehorses in the mounting yard and at the start of a race. Such thoroughbred racehorses originated from Arabian stallions imported to England in the late 1700s and early 1800s, and today selective breeding techniques are used to try to maximise their racing ability. A well-bred horse can sell for millions of dollars even before being raced.  
• Jockeys are seen in the mounting yard and in the race. Jockeys, who must be relatively lightweight and highly skilled, are hired on a daily basis, and earn a share of any winnings. The clip shows them wearing the registered racing 'colours' or 'silks' of the trainers or owners of the horses they are riding.  
• The clip shows money being given to a bookmaker's 'bagman', and a 'bookie' standing next to his betting |
board, writing out tickets. In Australia, bookmakers operate 'on course' (inside race courses), taking bets on each race and constantly altering the 'odds' on offer, often in line with the betting on the Totalisator Agency Boards (TABs). The bookmaking industry is highly regulated in every state to prevent corrupt behaviour and to ensure that gamblers using bookmakers are always paid for a successful bet.

- The commentary in the clip refers to Australians being 'keen gamblers'. According to the Australian Bureau of Statistics, total net takings from gambling in Australia during 2004-05 were $15.5 billion. About $2 billion of the takings was from gambling on horses or greyhounds, about $70 million of which was with bookmakers.

- The commentary makes a reference to the Melbourne Cup just as the beginning of a race is shown in the clip. This could give the impression that the race being shown is the Melbourne Cup, but the unidentified race track depicted is not the Flemington track in Melbourne where the Melbourne Cup has been staged on the first Tuesday in November each year since 1861. The Melbourne Cup is Australia's best known horse race, termed 'the race that stops a nation' because many people all over the country stop work to listen to the race on radio or watch it on television.

- The film from which this clip is taken, 'Faces of Australia', was commissioned by Caltex Petroleum (Aust). The film incorporates some footage from a 1966 film also produced by Caltex, which, the company explained, was one of a series 'made in the interest of international understanding'. Although some Caltex signage is briefly seen in 'Faces of Australia', the company is not mentioned in the commentary and the film more closely resembles an advertisement for Australia, portraying it as a vibrant, confident and modern country that is being enhanced by immigration.

<p>| 2.3.1 | Life cycle &gt; Contribute &gt; Role | 1st CONTRIBUTOR [Role = Content provider] |</p>
<table>
<thead>
<tr>
<th>2.3.2</th>
<th>Life cycle &gt; Contribute &gt; Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[vCard]</td>
</tr>
</tbody>
</table>

| Address: |
| 'City' = Acton; 'State'= ACT; 'Postcode' = 2601; 'Country' = Australia |
| Organisation = National Film and Sound Archive |

2nd CONTRIBUTOR [Role = Copyright owner]
Address: 'City' = Acton; 'State' = ACT; ‘Postcode’ = 2601; ‘Country’ = Australia
Organisation = National Film and Sound Archive
Remark: Reproduced courtesy of National Film and Sound Archive

3rd CONTRIBUTOR [Role = Copyright owner]
Address: 'City' = Acton; 'State' = ACT; ‘Postcode’ = 2601; ‘Country’ = Australia
Organisation = Caltex Petroleum Pty Ltd
Remark: With permission of Caltex Petroleum Pty Ltd

4th CONTRIBUTOR [Role = Copyright owner]
Address: 'City' = Acton; 'State' = ACT; ‘Postcode’ = 2601; ‘Country’ = Australia
Organisation = Caltex Petroleum (Aust) Pty Ltd
Role description: production company
(2.3.3) Date: 1968

5th CONTRIBUTOR [Role = Copyright owner]
Address: Role description: director
Name: Werner Wollek
(2.3.3) Date: 1968

6th CONTRIBUTOR [Role = Author]
Role description: photographer
Name: Ross King
(2.3.3) Date: 1968

7th CONTRIBUTOR [Role = Author]
Role description: musician
Name: Sven Libaek
(2.3.3) Date: 1968

8th CONTRIBUTOR [Role = Publisher]
Address: 'City' = Melbourne; 'State' = VIC; ‘Postcode’ = 3000; ‘Country’ = Australia
Organisation = Curriculum Corporation; The Le@rning Federation
URL = http://www.thelearningfederation.edu.au/
| 7 | Relation | Kind: issiblingof  Catalog: TLF-Resource  Entry: R6421  
    Kind: issiblingof  Catalog: TLF-Resource  Entry: R6422  
    Kind: issiblingof  Catalog: TLF-Resource  Entry: R6418  
    Kind: issiblingof  Catalog: TLF-Resource  Entry: R6419 |
|---|---|---|
| 4.4.1.1 | Technical > Requirement > Type | 1st REQUIREMENT  
  Type = Operating system  
  Name = MS-Windows  
  Minimum version = 2000  
  Maximum version = XP |
| 4.4.1.2 | Technical > Requirement > Name | 2nd REQUIREMENT  
  Type = Operating system  
  Name = MacOS  
  Minimum version = X |
| 4.4.1.3 | Technical > Requirement > Minimum version | 3rd REQUIREMENT  
  Type = Browser  
  Name = Microsoft Internet Explorer  
  Minimum version = 6.0 (MS-Windows) |
| 4.4.1.4 | Technical > Requirement > Maximum version | 4th REQUIREMENT  
  Type = Browser  
  Name = Firefox  
  Minimum version = 1.0 (MS-Windows) |
| | | 5th REQUIREMENT  
  Type = Browser  
  Name = Safari  
  Minimum version = 1.2 (MacOS) |
| | | 6th REQUIREMENT  
  Type = Plug-in  
  Name = QuickTime Player  
  Minimum version = 6.5 |
| 5.2 | Educational > Learning resource Type | Moving image |
| 9 | Classification > Accessibility restrictions… TLF Access Profile | Device independence, Colour independence |
| 6.3 | Rights > Description | © Curriculum Corporation and Film Australia, 2007, except where indicated under Acknowledgements |
R4154 Excerpt from an interview with Hazel Craig, 1997 - part 3 of 3

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Element Name</th>
<th>Element Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>General &gt; Title</td>
<td>Excerpt from an interview with Hazel Craig, 1997 - part 3 of 3</td>
</tr>
<tr>
<td>1.4</td>
<td>General &gt; Description</td>
<td>This is an excerpt (approximately 3 minutes) from a 1997 oral history interview with Hazel Craig, in which she relates her memories of Prime Minister John Curtin and his relationships with Generals Blamey and MacArthur. Craig worked as a stenographer in the Prime Minister's Department during the Second World War.</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea… ScOT (Topic)</td>
<td>Australian history; Defence agreements; Interviews; Oral history; Prime ministers; War</td>
</tr>
<tr>
<td>1.5</td>
<td>General &gt; Keyword</td>
<td>Australian history; Defence agreements; Interviews; Oral history; Prime ministers; Second World War; Stenographers; War; War Cabinet; World War Two</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea… ISO 3166 {Spatial coverage}</td>
<td>Country: AUSTRALIA</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Idea… DCMI Period {Temporal coverage}</td>
<td>Start: 1939 End: 1945 Scheme: W3C-DTF</td>
</tr>
</tbody>
</table>
| 9 | Classification > Educational objective… Educational value | - This asset reveals something of the character and personality of John Curtin (1885-1945, Prime Minister 1941-45) - Hazel Craig recalls how Curtin negotiated a careful path between two key players in the war effort in the Pacific, US General Douglas MacArthur and Australian General Thomas Blamey, to ensure Australia's best interests were served; Craig believed that, despite not being a military man, Curtin was able to make tough decisions and could placate such formidable characters as Blamey and MacArthur.  
- It suggests the important part the USA and MacArthur played in saving Australia from Japanese invasion in the Second World War - the USA came to Australia’s aid in early 1942, when Australians feared invasion by Japan; US General Douglas MacArthur was appointed Supreme Commander of the South-West Pacific region, and Brisbane became the headquarters of the US military campaign as hundreds of thousands of US troops poured into Australia; using Australia as a base, US, Australian and other Allied troops gradually repelled the Japanese advance and, by late 1942, the threat of invasion had waned.  
- It refers to the tensions between Australian General Blamey and US General MacArthur - in March 1942, Blamey was appointed Commander-in-Chief of the |
Australian Military Forces and, under General MacArthur, became Commander of Allied Land Forces in the Pacific; Blamey was resented by many senior Australian officers and overshadowed by MacArthur, who developed a close relationship with Curtin; Blamey encountered numerous difficulties, and his removal of several senior Australian officers in New Guinea, under pressure from MacArthur, remains controversial.

- It refers to General MacArthur (1880-1964) - after graduating from the US Military Academy at West Point in 1903, MacArthur had a long military career, serving in the First World War, becoming Superintendent of West Point (1919-22) and Chief of Staff of the US Army (1930-35) before being appointed Field Marshall in the Philippines Army; in the Second World War, MacArthur was appointed Commander of Allied forces in the South-West Pacific Area, and employed US and Australian forces to recover the Solomon Islands, New Guinea and the Philippines from Japanese occupation; MacArthur then served as Supreme Commander of the Allied Occupation Force in Japan.

- It refers to General Blamey (1884-1951) - in the First World War, Blamey served at Gallipoli and in France, and was appointed Chief of Staff to Sir John Monash; in the Second World War, he commanded the Australian Imperial Force in the Middle East, and all of the Australian Army after Japan entered the War; he served Prime Ministers Robert Menzies and John Curtin, was a senior subordinate to the British Field Marshalls Wavell, Wilson and Auchinleck in the Middle East, and worked directly under General Douglas MacArthur in the South-West Pacific; Blamey represented Australia at the Japanese surrender in September 1945.
### 2.3.2 Life cycle > Contribute > Entity [vCard]

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>'City' = Perth; 'State' = WA; 'Postcode' = 6845; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation</td>
<td>John Curtin Prime Ministerial Library</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://john.curtin.edu.au/">http://john.curtin.edu.au/</a></td>
</tr>
</tbody>
</table>

**2nd CONTRIBUTOR [Role = Copyright owner]**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>'City' = Perth; 'State' = WA; 'Postcode' = 6845; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation</td>
<td>John Curtin Prime Ministerial Library</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://john.curtin.edu.au/">http://john.curtin.edu.au/</a></td>
</tr>
<tr>
<td>Remark</td>
<td>Reproduced courtesy of John Curtin Prime Ministerial Library</td>
</tr>
</tbody>
</table>

**3rd CONTRIBUTOR [Role = Author]**

- Role description: speaker
- Name: Hazel Craig
- (2.3.3) Date: 1997

**4th CONTRIBUTOR [Role = Publisher]**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>'City' = Melbourne; 'State' = VIC; 'Postcode' = 3000; 'Country' = Australia</td>
</tr>
<tr>
<td>Organisation</td>
<td>Curriculum Corporation; The Le@rning Federation</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://www.thelearningfederation.edu.au/">http://www.thelearningfederation.edu.au/</a></td>
</tr>
</tbody>
</table>

### 4.4.1.1 Technical > Requirement > Type

**1st REQUIREMENT**

- Type = Operating system
- Name = MS-Windows
- Minimum version = 2000
- Maximum version = XP

**2nd REQUIREMENT**

- Type = Operating system
- Name = MacOS
- Minimum version = X

**3rd REQUIREMENT**

- Type = Browser
- Name = Microsoft Internet Explorer
- Minimum version = 6.0 (MS-Windows)

**4th REQUIREMENT**

- Type = Browser
- Name = Firefox
- Minimum version = 1.0 (MS-Windows)

**5th REQUIREMENT**

- Type = Browser
- Name = Safari
- Minimum version = 1.2 (MacOS)

**6th REQUIREMENT**

- Type = Plug-in
- Name = QuickTime Player
<table>
<thead>
<tr>
<th></th>
<th>Minimum version = 6.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2</td>
<td>Educational &gt; Learning resource Type</td>
</tr>
<tr>
<td>9</td>
<td>Classification &gt; Accessibility restrictions… TLF Access Profile</td>
</tr>
<tr>
<td>6.3</td>
<td>Rights &gt; Description</td>
</tr>
</tbody>
</table>