

Using content as part of a learning activity



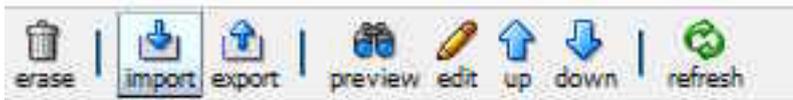
You can export and import Learning Items from the repository for sharing and re-use. Use the 'Import Learning Item' and 'Publish Learning Item' buttons at the top of Learning Tasks to do this.

When you publish a Learning Item, it goes to your School space. When you want to import a Learning Item you can bring it in through the content pages as you do when adding a content item. It is important to note that even though Learning Items can be exported and imported they can never be viewed outside of Learning Tasks.



Publish Learning Item

Publishing a Learning Item



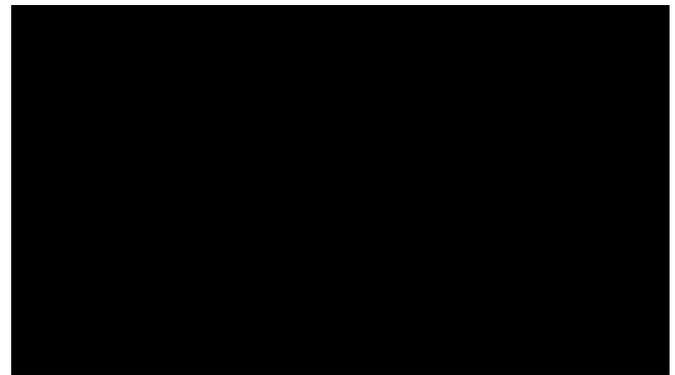
Import Learning Item

Importing a Learning Item





eBookboxes are similar to teachers' existing curriculum files, activities or programs that are currently stored within filing cabinets, bookboxes or online. The difference is that they represent the input of multiple teachers, and bring together research and quality digital content that can be adapted and modified to meet the needs of individual students within the Ultranet. They include activity sets which can be imported into Learning Tasks and assigned to a class or group of students.



Video: eBookboxes

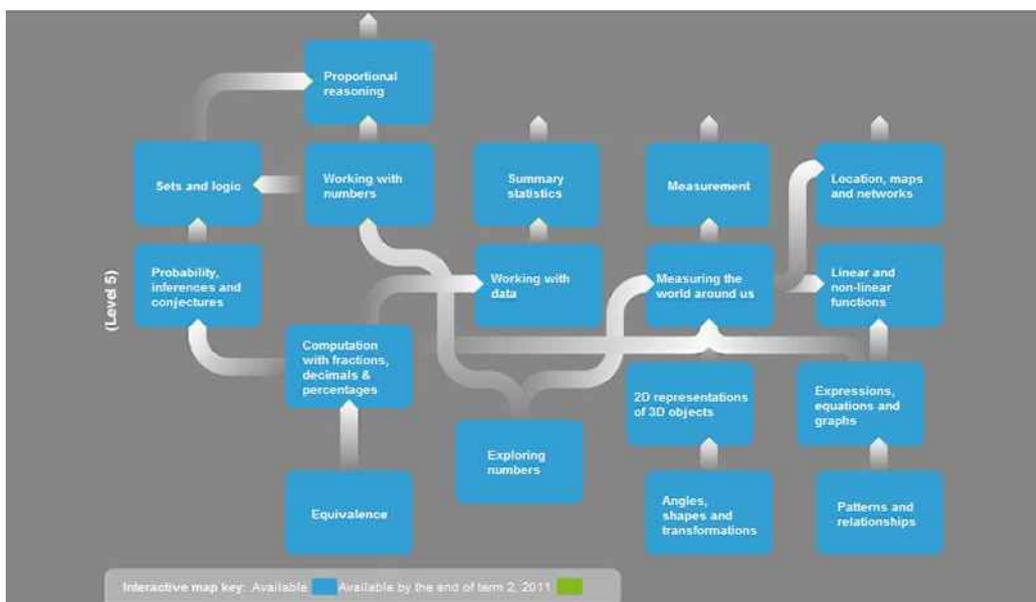
A series of VCE and Mathematics eBookboxes are now available in the Ultranet. The Mathematics eBookboxes are aligned with different VELs levels and are organised around key mathematical concepts/topics. The VCE eBookboxes contain a range of quality digital resources organised around outcomes, areas of study, and key knowledge and skills. They do not contain a Teacher Guidance section as this information is already available in the relevant VCE study design.

More eBookboxes are currently in development and planned to be available at the start of Term 3, 2011:

- > Level 5 English, LOTE and Science (three of each)
- > Level 4 and Level 6 Mathematics eBookboxes (six of each)
- > VCE Physics, Chemistry and Mathematics.

Features of Mathematics eBookboxes

The diagram below shows the key concepts used to structure the Mathematics eBookboxes for Level 5.





All Mathematics eBookboxes have an Overview and Teacher Guidance:

They also contain links to specific advice and guidance to inform teachers as they begin to plan the Learning Sequence/s for a particular key concept/topic.

The 'Teacher Guidance' section contains advice on:

- > key ideas
- > learning goals and focus questions
- > prior learning
- > further learning
- > links to VELs
- > common misunderstandings and teaching strategies
- > research links
- > key words.

Teachers familiar with the Mathematics Developmental Continuum P-10 will recognise many of the materials from that resource.



Activities

Learning activities are organised into activity sets. Each activity set has associated learning goals and focus questions and provides access, through the 'Activities' button, to a selection of digital resources that can be used as the basis of learning activities for students.

eBookbox Angles, shapes and transformations Level 5 - Mathematics

eBookbox overview **Teacher guidance** **Activities**

Diagnostic task

- Activity set: Describing and defining angles
- Activity set: Relationships between angles and shapes
- Activity set: Describing and classifying shapes and angles
- Activity set: Relationships between angles
- Activity set: Geometric transformations of shapes
- Activity set: Comparing shapes
- Activity set: Combinations of shapes
- Concluding assessment activities

Activity set: Describing and classifying shapes and angles

Learning goals

Students will understand that:

- angles can be classified by size
- polygons can be defined by adjacency, line and angle properties.

Students will develop the skills to:

- estimate, define, classify and compare angles
- measure angles with a protractor
- classify shapes with reference to a definition or key property
- define classes of regular polygons using angle, line and adjacency properties.

Focus question

How can we describe and classify shapes and angles?

Activities

Digital resources in each activity set are accompanied by brief teacher notes to help teachers determine if they are suitable for their students. Activities will be updated as additional quality resources are identified.

eBookbox Angles, shapes and transformations

Activity set: Describing and classifying shapes and angles

Triangles

A sequenced set of interactive student activities that review angle classification, properties of triangles and their angles, and side classification. Explanations are given in multiple formats and many activities have feedback. In teach activities, vertically opposite angles are called 'vertical angles'.

Learning goals

- Understand that angles can be classified by size.
- Identify and calculate types of angles in straight line situations, including transversals of parallel lines.
- Understand that polygons can be defined by adjacency, line and angle properties.
- Classify shapes with reference to a definition or key property.

e5 Teacher capabilities

Explain: presents new content, develops language and literacy, strengthens connections

Could be used: as an individual or paired activity with class discussion. The activities need to be preceded by a class discussion, drawing out students' prior knowledge about triangles. A class discussion to consolidate a shared understanding of the properties of triangles could be set up as a concluding activity.

1 2 3 4 5 6 7 8 9



'Elaborated' eBookboxes

Two of the Mathematics eBookboxes (*Equivalence* and *Computation with Fractions, Decimals and Percentages*) are 'elaborated' eBookboxes. Elaborated eBookboxes contain fully sequenced learning activities. Teachers can choose to use them as they are to teach the particular content which is the focus of an eBookbox. The activities have been sequenced using the e⁵ model and each activity set lists the capabilities that could be demonstrated by using this sequence.

Learning activities that are included can be completed online or offline.

eBookbox Equivalence (elaborated) Level 5 - Mathematics

eBookbox overview Teacher guidance Engage Explore Explain Elaborate Evaluate

Equivalence eBookbox overview

Probability, statistics, conjectures and evidence
Working with data
Measuring the world around us
Computation with fractions, decimals & percentages
Equivalence

What's in this eBookbox?

The *Equivalence (elaborated)* eBookbox focuses on equivalent fractions and equivalent representations of fractions, decimals, percentages and ratios.

It contains 12 activity sets, which are fully sequenced and organised with reference to the relevant e⁵ capabilities. In addition to learning activities, the eBookbox contains diagnostic tasks and concluding assessment activities. Each student activity is accompanied by detailed teacher notes.

There is also a 'Teacher guidance' section, which includes learning goals, information on prior and further learning, links to the VELs, common misunderstandings and relevant research. Take time to read this information before you start using the activities with your students.

How can I use it?

You can use the *Equivalence (elaborated)* eBookbox as it is, or as a starting point for designing your own teaching and learning sequence.

In this Design Space you can explore the eBookbox, and discuss and share useful ideas about it with other teachers.

The activity sets from this *Equivalence (elaborated)* eBookbox are also available in [Learning Tasks](#) so that you can assign them to students.

Teacher guidance

The 'elaborated' eBookboxes provide a guide to teachers as to how the content made available in unelaborated eBookboxes could be used as the basis for planning Learning Sequences within the Ultranet. The *Equivalence* eBookbox is provided in both elaborated and non-elaborated formats in Learning Tasks. Over time, we plan to work with teachers and schools to convert all Mathematics eBookboxes into elaborated boxes and to make them available through the Ultranet.



Accessing eBookboxes in the Ultranet

The Ultranet Mathematics and VCE eBookboxes can be accessed via the relevant Ultranet Design space or via Learning Tasks. In Design, teachers can look at each eBookbox in detail, discuss it with colleagues, consider how they might add to, amend or change it to use with their students, and provide and share feedback on the complete eBookbox or specific resources within it.



Accessing the eBookboxes in Design

Join the *Mathematics eBookboxes* or *VCE eBookboxes* Design Space. Go to Design and:

- > select the 'Available Design Spaces' tab
- > search for 'Mathematics eBookboxes (ID 66512121)' or 'VCE eBookboxes' (ID 108535810)
- > click on the Actions button and select 'Request Membership.'



Accessing the eBookboxes in Learning Tasks

You can also access the activity sets for each eBookbox in Learning Tasks.

In Learning Tasks:

- > click on the 'Import' button
- > select the 'Endorsed' tab
- > choose the eBookbox you wish to import and click on the 'Select' button.

Once imported, the Learning Items and instructions for students from each eBookbox can be used as they are, rearranged, added to, or amended and then assigned to students.

The screenshot shows the Ultranet Learning Tasks interface. The main window displays a list of learning items under the 'Teacher E' user. The items are organized into folders and sub-items, with a column indicating their visibility to students. The 'Is Visible To Students' column shows 'Not Visible' for 'Equivalence (elaborated)', 'Equivalence eBookbox in Design Space', 'Student diagnostic task', and 'Teacher notes'. Other items are marked as 'Visible'.

Learning Item	Is Visible To Students
Equivalence (elaborated)	Not Visible
Equivalence eBookbox in Design Space	Not Visible
Engage - Activity set 1 - What is a fracti...	Visible
Think-pair-share	Visible
Online pattern blocks	Visible
Maths journal for Equivalence	Visible
No matter what shape	Visible
Mind map	Visible
Reflection	Visible
Shapes of varying values	Visible
Student learning goals	Visible
Student diagnostic task	Not Visible
Teacher notes	Not Visible
Engage - Activity set 2 - Equivalent frac...	Visible
Discussion	Visible
Teacher notes	Not Visible
Concentration game	Visible
Engage - Activity set 3- Miniature earth	Visible
Student inquiry	Visible
Interpretation data	Visible