# TURN IMAGINATION INTO REALITY

Imaginality brings learning to life using Augmented Reality. Hold a beating 3D heart in the palm of your hand and see how blood flows through it, investigate moon phases, or have fun creating and sharing 3D objects with the world.

IMAGINALITY is designed to enhance students' understanding of spatial, temporal and contextual information in an intuitive and engaging way that is both easy and fun to use. It supports prescriptive, self-paced learning for visual, audible and kinesthetic learners. It also offers unique forms of interaction with virtual objects that are not possible with real objects.

IMAGINALITY includes a series of curriculum relevant modules to help students understand complex concepts quickly. These modules are designed to be suitable for a broad range of ability levels, while encouraging sharing and teamwork. Imaginality also enables students and teachers to quickly create their own modules, increasing motivation and involvement, while offering extra challenges for high achieving students.

## What is Augmented Reality?

Augmented Reality takes a view of the real world and overlays visual information as if it is in the real world.

## How does IMAGINATLITY work?

IMAGINALITY takes the best of computers (e.g. graphics and interaction) and combines that with the ease of playing with real objects. Using a web cam, real objects we call "paddles" can be moved around with virtual objects attached to them. The computer screen allows you to see yourself moving the 3D virtual objects as if they were real objects.
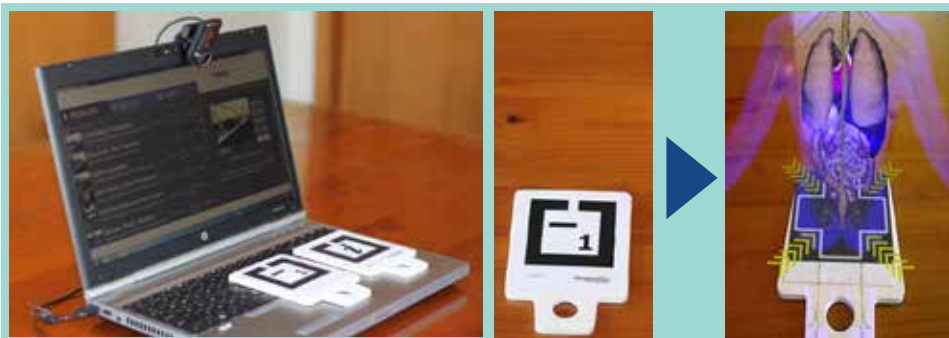
# THE IMAGINATLITY SUITE

IMAGINALITY provides two powerful tools that allow you to make the most of virtual learning in different ways based on your students or your teaching style.

**IMAGINALITY PLAYER** is an Augmented Reality 'App Store', full of educational experiences, called modules, that have been created by professionals and designed to target specific topics in the curriculum. Many are accompanied by detailed Teacher Guides and Worksheets to make lesson plans easy and to maximise each module's value. Images and video can be captured for cross-pollination into reports, tests, journals, assignments and portfolios.

FOR EXAMPLE: The "Moon Phases" module enables students to move the moon around the earth and understand how this affects moon phases and tides. The Teacher Guide helps you cover all the relevant points and comes with printable worksheets that the students can complete in groups.

**IMAGINALITY CREATOR** makes it easy for students and teachers to create and share their own IMAGINALITY modules. In seconds, choose a 3D model and place it on a paddle. In a few more seconds, have your 3D model interacting with other 3D models. In just a few minutes, complete your module and have it automatically uploaded online to share for free with friends and parents.

FOR EXAMPLE: Make planets scale to their relative sizes when they are held beside each other.

The IMAGINALITY CREATOR comes with tight Google SktechUp integration. This enables students and teachers to find or create their own 3D models and either view them immediately on a 'paddle', or take them into the IMAGINALITY CREATOR where they can make their own IMAGINALITY module. This integration is provided as a plug-in for Google SketchUp (sketchup.com), a free 3D modeling application that has a large community of loyal school users. With it, you can make 3D models from the ground up, or assemble or modify any of the 200,000+ free models in the Google 3D Warehouse.

FOR EXAMPLE: Download a 3D model of a car from the Google 3D Warehouse. Hold it in your hand on a 'paddle' or separate out the components (e.g. body and chassis) and add some new ones (e.g. engine and differential). Export it to the IMAGINALITY BUILDER and make a "Build Your Ultimate Car" module to share online.



**Modules** | **Setup**

Module Creation Tool
Create custom modules for Imaginality

Creature Hats
Wear the head of a Rat, Goat, Dragonfly or Octopus

Build a Maori Village
Preview Version. Learn about and build a Maori Village.

Wearing Maori Artifacts
Preview Version. Maori artifacts that can be worn by the user

Moon Phases
Discover the phases of the moon

**20 MODULES TO CHOOSE FROM AND MORE BEING MADE!**

The IMAGINATLITY Suite includes everything you need to start using IMAGINATLITY, with a standard Windows computer and Mac computers from Mid-2012. The full package includes:

- USB Web Camera
- Set of 12 Paddles (small, handheld squares on which the computer places 3D objects)
- A PDF of the paddles (and tips on how to best use them) so you can print out replacement paddles if necessary

**IMAGINALITY PLAYER**
- 30+ professionally produced modules
- 8 detailed Teacher Guides
  Each of these are 10 to 20 pages, and include: module value (its advantages over other learning media for this subject); curriculum fit (based on general US curriculum); a description of what students can explore; curriculum learning objectives; key concepts; a quick start guide; elements specific to this module; a glossary; sample worksheet with teacher notes and answers; info paddle text; instructions on how to use the module along with common student questions

**IMAGINALITY CREATOR**
- Over 30 3D objects and over 10 animated 3D objects
- The ability to add a limitless range of 3D objects via the IMAGINALITY CREATOR
- Over 60 sound effects that can be attached to 3D objects or interactions
- Preview any SketchUp 3D model in AR with one click
- Tight integration with Google SketchUp
- Access to 200,000+ free models in the Google 3D Warehouse.
- Assists with installing Google SketchUp (free) if necessary

NOTE: The tool kit may be customized by different distributors; Imaginality works with any Windows desktop or laptop made since 2007 and most older computers although it's best to check them against our system requirements; A broadband internet connection enables the best experience.

# FEATURES & BENEFITS OF IMAGINALITY

| SOFTWARE FEATURE | TEACHER BENEFIT |
|---|---|
| Lets you hold virtual, 3D, learning objects in the palm of your hand | Hold children's attention for longer<br>Appeal to kinesthetic learners<br>Bring high engagement stimulus into the class room (rather than just at home) |
| Uses virtual learning objects instead of real objects<br>Virtual objects can be animated, float in mid air, interact with other objects and interact with the user | Students can quickly understand complex concepts<br>Achieve curriculum objectives faster<br>Illustrate concepts without being restrained by physical limitations |
| One computer can be used by multiple students | Maximise the use of your hardware<br>Encourage sharing and teamwork |
| Enables you to capture still images and videos of what you are making | Integrate IMAGINALITY into other work like assignments and portfolios |
| The IMAGINALITY PLAYER offers over 30 curriculum focused modules and it is growing. Many modules come with Teacher Guides and Worksheets | Slot IMAGINALITY into your curriculum easily<br>Save time designing lesson plans and activities<br>Get lots of great ideas to maximise the value of each module |
| Modules teach via demonstrations, activities and do-it-yourself projects for different ages, abilities and group sizes<br>Can be used on digital white boards, single computers or in computer labs | Support prescriptive, self-paced, discovery-based and project-based learning<br>Cater for children of different ability levels, year levels and group sizes<br>Offer extra work for high achieving students<br>Can be adapted for various teaching spaces |
| Comes with over 110 sample 3D models and sound effects | Get started quickly – create your first module in under a minute |
| Offers over 200,000 free 3D models<br>Students and teachers can download, modify or create their own 3D models<br>Create modules by arranging 3D models and making them interact with each other<br>Share and promote modules online for free | Quickly develop resources<br>Limitless content to play with and create<br>Challenge high achieving students<br>Students will be challenged and inspired on a world stage<br>Enable students to show their family what they are creating at school<br>Support critical analysis and improvement projects |
| Enables you to enrich modules by adding text, narration, sound effects, animation or images to 3D models<br>Lets you make 3D models interact with each other by simply choosing from pre-built options | Students can create the AR equivalent of posters or Power Point presentations that are fun and interactive<br>Teachers can quickly add information, context and instructions to 3D models |
| Allows you to view the underlying C# programming code and edit the code to make new interactions | A great introduction to computer programming<br>A great way to teach programming – students can quickly see fun, tangible results |