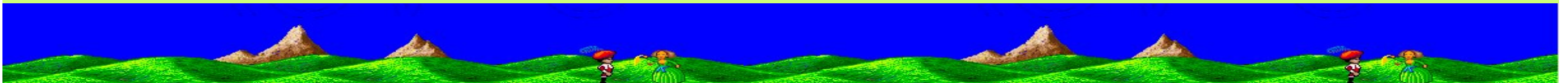


Teaching in the 21st Century

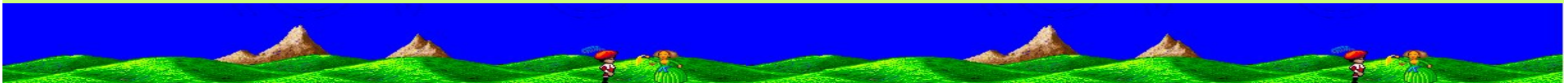




Margaret Meijers

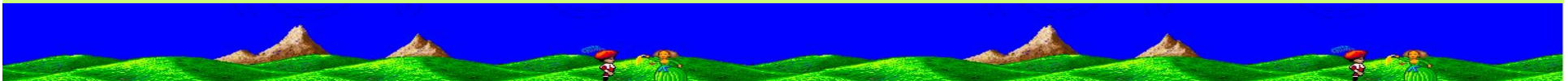
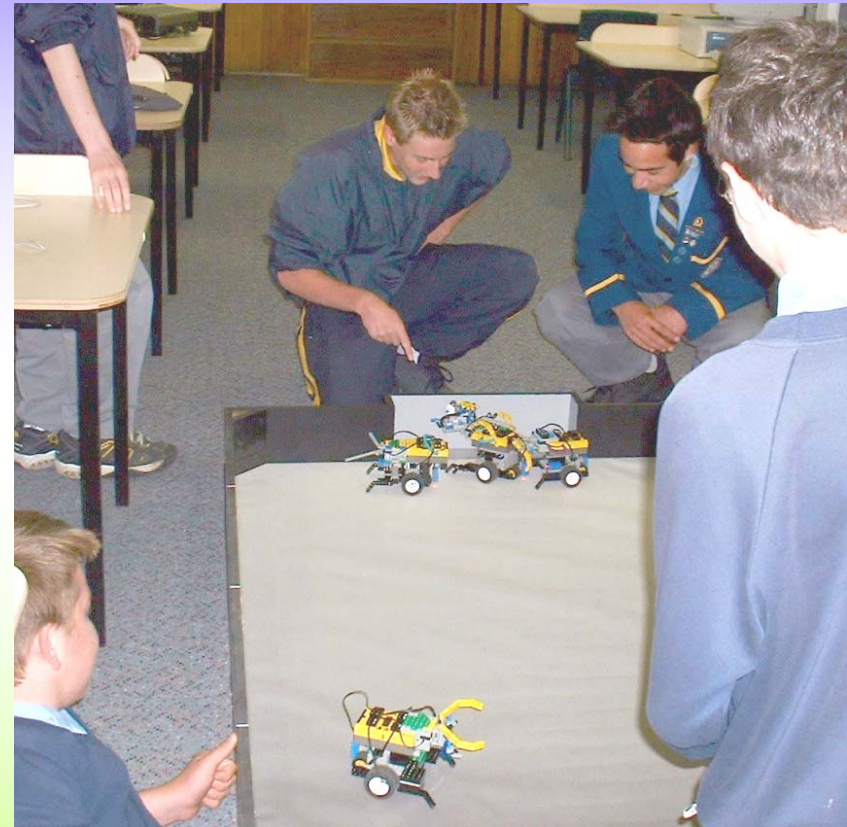
Teacher at New Town High School, Tasmania

- Inner city Government school for boys
- 830 students – years 7 to 10
- Inclusive school community – wide range of multi cultural, indigenous, socio-economic backgrounds, academic ability, and physical and intellectual disabilities



Special Interests

- Positive learning environments – game development and other new and emerging real-world applications to engage and motivate
- Online teaching and learning
- Online collaborative tools
- Peer mentoring
- ICT tools to enhance thinking skills



Classes

New Town High

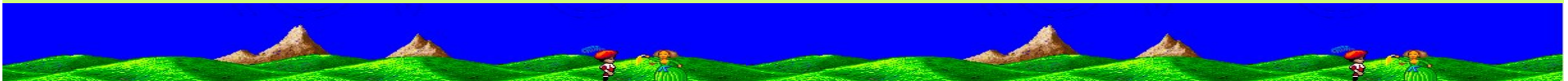
- Two 'regular' grade 8 & 9 Computing classes
- Online Computing Extended

Online Campus

- Online Computing 8-10
- Online Games Unit 7-10

Centre for Extended Learning

- Online Game Programming for gifted middle school students



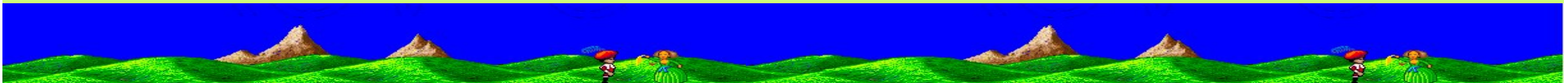
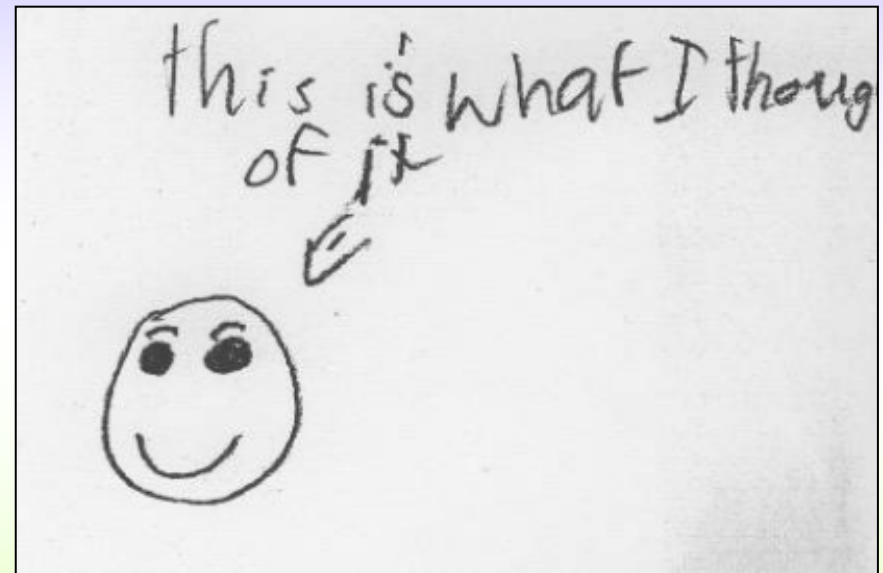
ICT Leadership at New Town High

- Network & resource management
- School website maintenance
- Curriculum development, both in specialist Computing and in integrating ICT across all learning areas
- Staff professional learning in ICT across the school



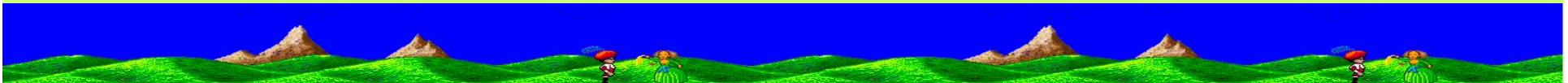
National Projects - BELS

- Boys' Education
Lighthouse Project cluster
leader - ICT strand
- work with staff and
students from neighbouring
primary schools
- ICT Mindtools to enhance
thinking skills and motivate
and engage boys



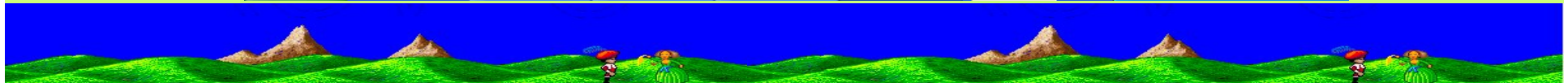
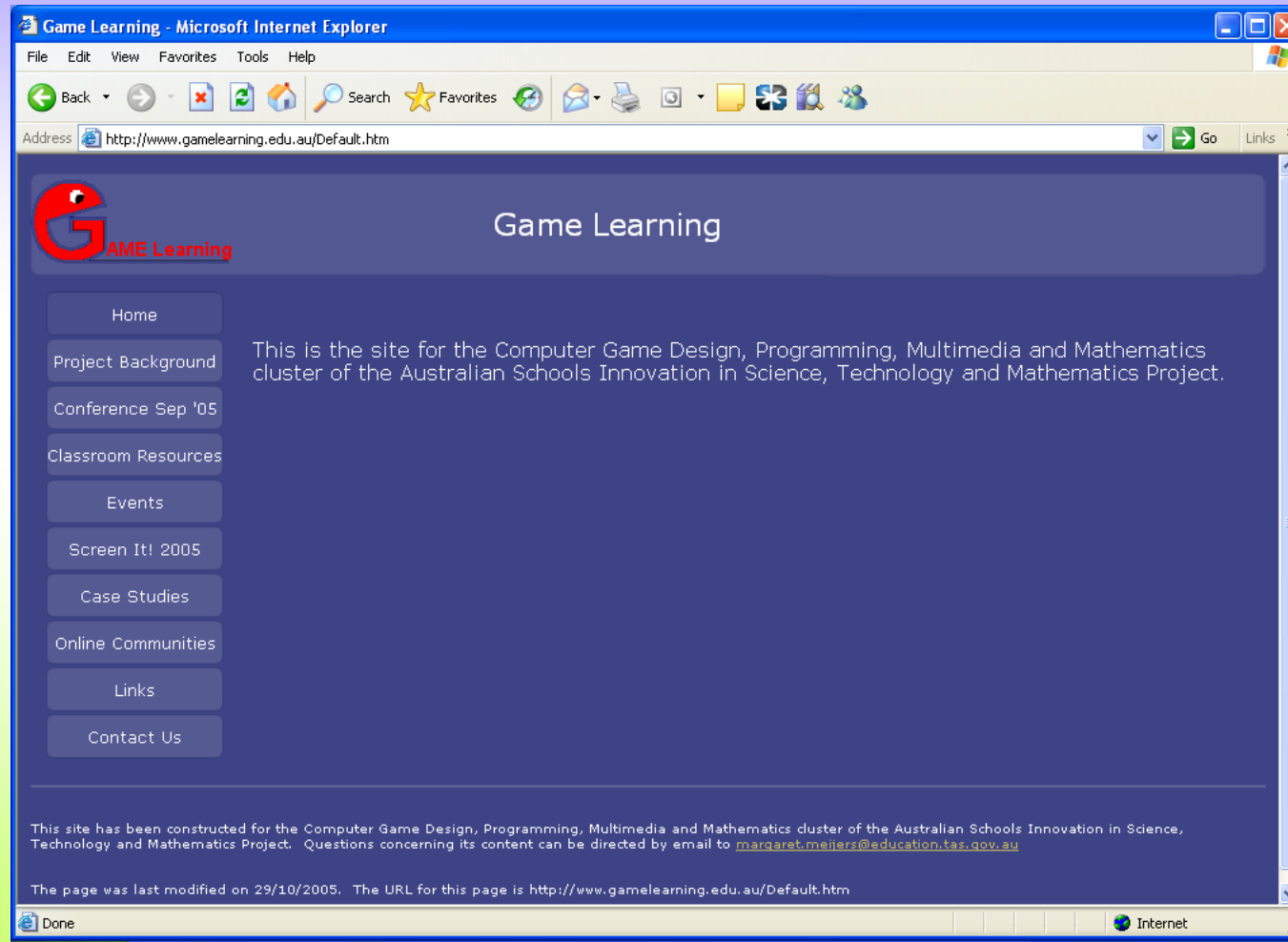
National Projects - ASISTM

- Currently part of a cluster with 3 schools from Victoria, 3 schools from South Australia and the Australian Centre for the Moving Image to promote game programming in schools
- Developing resources, delivering professional learning and running conferences

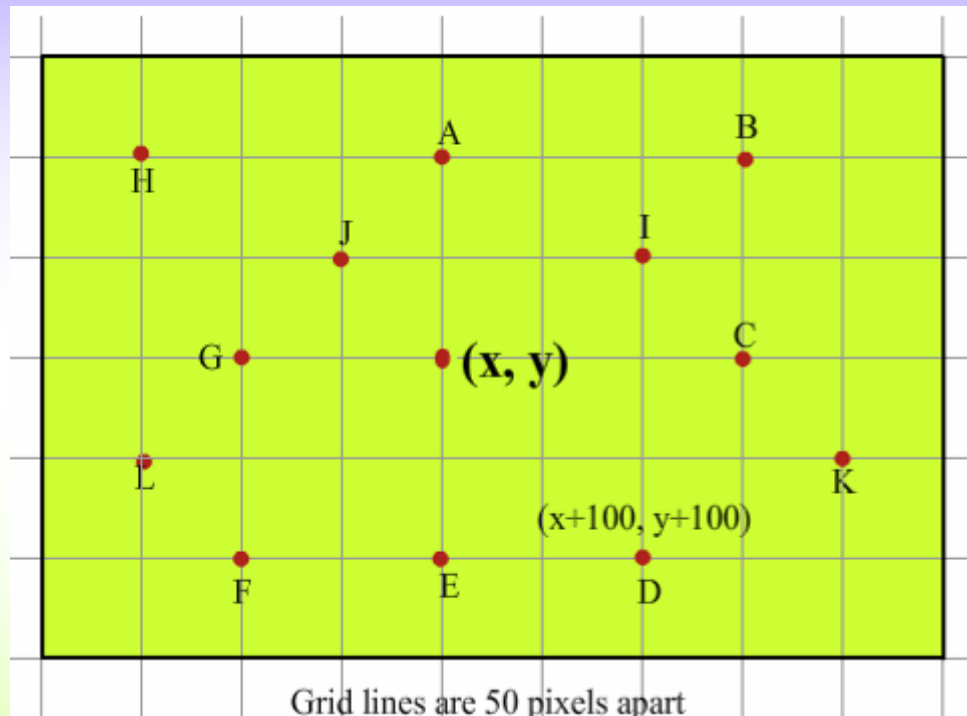


Game Learning Website

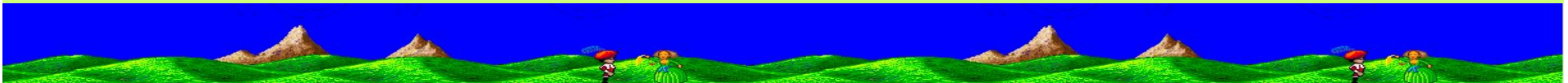
<http://www.gamelearning.edu.au>



National Projects - SIMERR

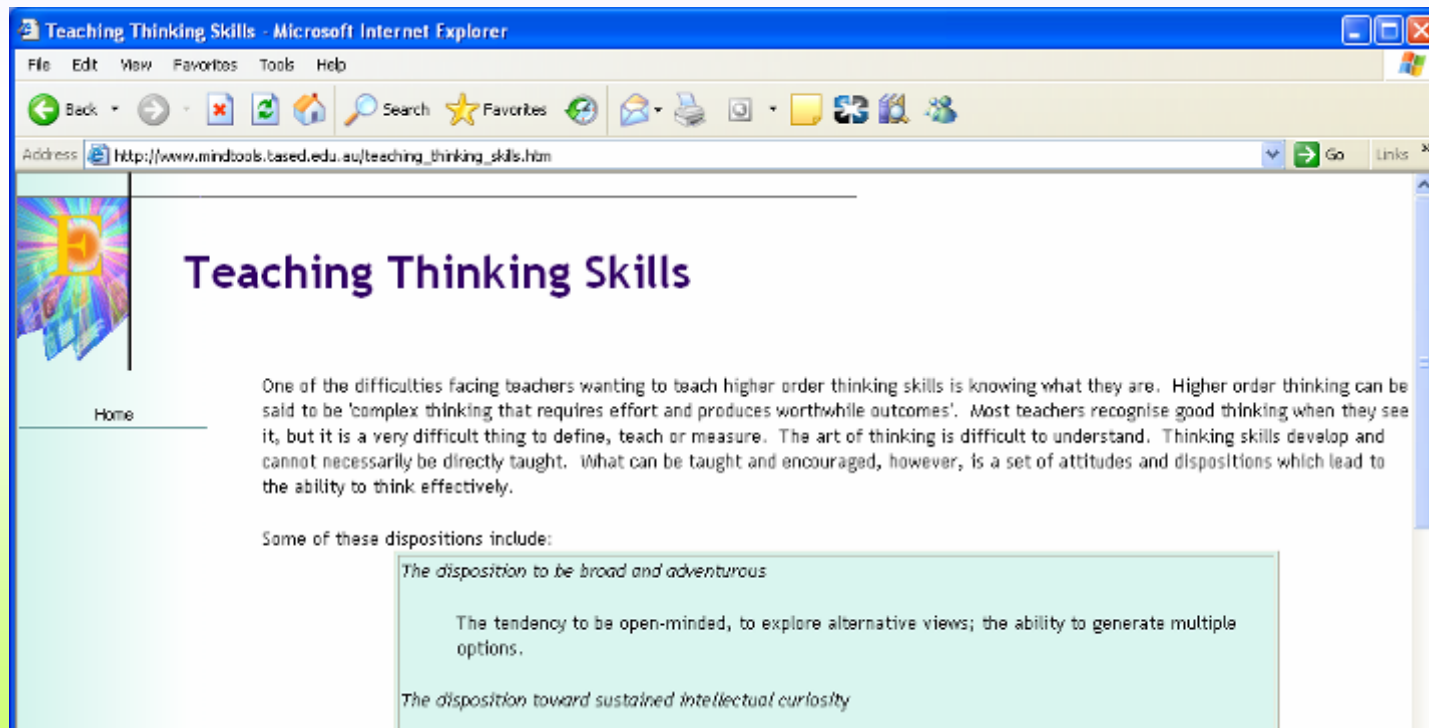


- Science, Information and Communication Technology, and Mathematics Education for Rural and Regional Australia (SIMERR) Project
- Developing web based game making resources to improve mathematical outcomes for students in country and isolated schools.



Wider Leadership & Support

- Online course in professional learning for teachers
- Professional learning for teachers through Tasite
- Web based resource development



ICT Mindtools Website

<http://www.mindtools.tased.edu.au>



The screenshot shows a Microsoft Internet Explorer browser window displaying the ICT Mindtools website. The browser's address bar shows the URL <http://www.mindtools.tased.edu.au/default.htm>. The website's main heading is "ICT Mindtools". Below the heading, there is a paragraph explaining that ICT Mindtools refers to tools that engage users in higher order thinking. A second paragraph states that the website will focus on game design, programming environments, concept mapping, interactive story production, and Lego robotics. The page is organized into two columns of links. The left column, under the heading "Teaching Resources", includes links for "Games Unit", "Klik & Play", "Game Maker", "CMap Concept Mapping", "Tales Animator", "Making PowerPoint Interactive", and "Lego Robotics". The right column, under the heading "For Teachers", includes links for "Why game programming?", "How can we teach thinking skills?", "References and other reading", and "Weblogs". At the bottom of the right column, the text "Essential Learnings" is visible. The browser's status bar at the bottom indicates "Done" and "Local intranet".

ICT Mindtools - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Stop

Address <http://www.mindtools.tased.edu.au/default.htm> Go Links

ICT Mindtools

By ICT Mindtools we refer to ICT tools that necessarily engage users in higher order thinking. Students cannot use Mindtools without thinking deeply about the task at hand. Mindtools require students to be creative and to think and make connections for themselves.

There are many Mindtools available, but here we will confine ourselves to game design and programming environments, concept mapping, interactive story production and Lego robotics

Teaching Resources

- [Games Unit](#)
- [Klik & Play](#)
- [Game Maker](#)
- [CMap Concept Mapping](#)
- [Tales Animator](#)
- [Making PowerPoint Interactive](#)
- [Lego Robotics](#)

For Teachers

- [Why game programming?](#)
- [How can we teach thinking skills?](#)
- [References and other reading](#)
- [Weblogs](#)

Essential Learnings

Done Local intranet

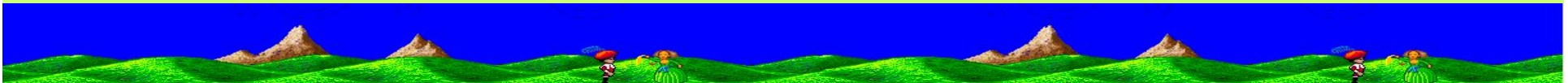


ESSENTIAL
LEARNINGS

Why Play Games When There's So Much Work To Do?



A trans-disciplinary unit of work for grades 4 - 10



Learn to Program

Design and create your own game using

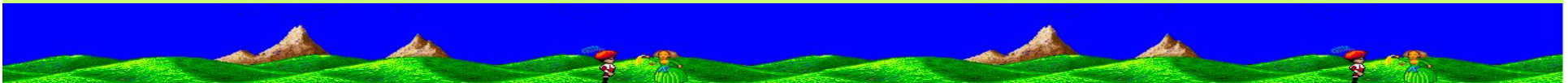
- Klik & Play for primary students
- Game Maker for high school students

Both free for educational use

Step by step video tutorials on

www.mindtools.tased.edu.au

- Supports low literacy and ESL students



Flak Attack



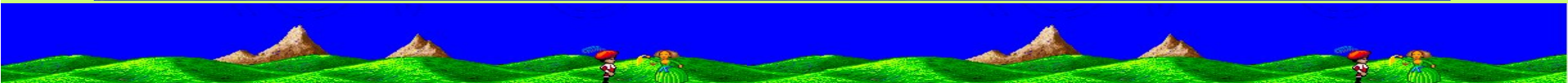
Game Options Help

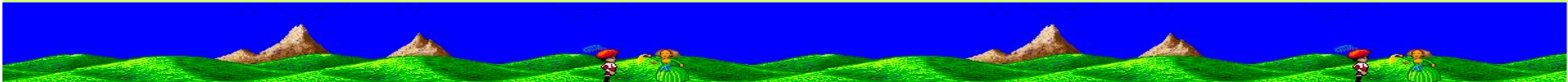
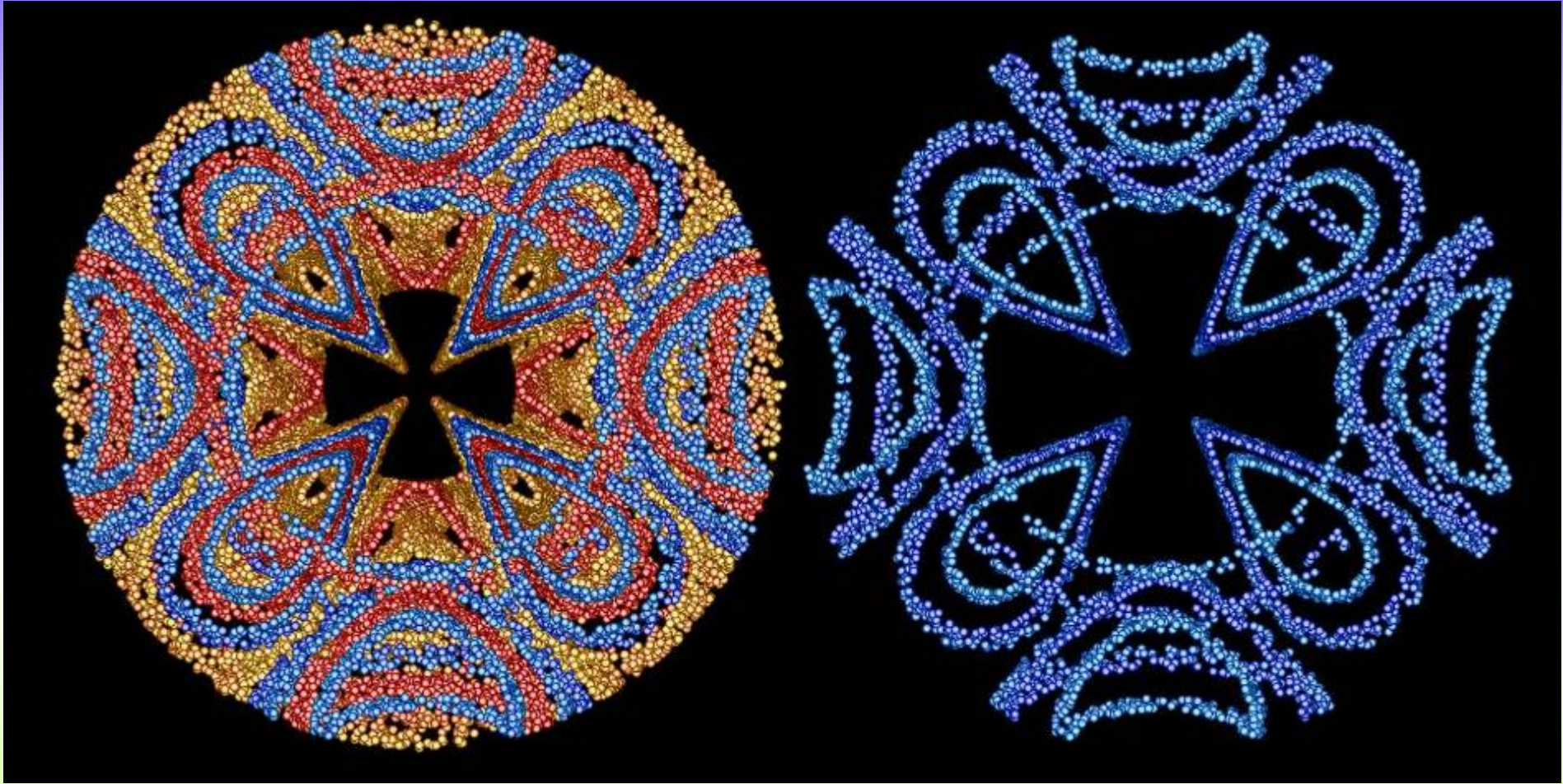
111

OK



Level 1





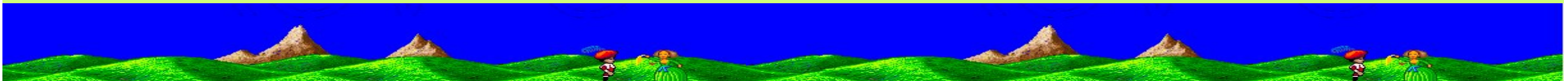
Why Games?

Video and computer games are the most powerful learning technology of the 21st century.



Children are playing them everywhere, often to the exclusion of all else.

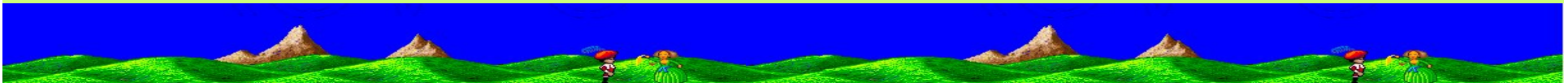
We can capture this motivation and enthusiasm and harness it for learning.



GAMES

A Gateway to Becoming a Community of Learners

- Communities develop around the peer discussion, mentoring, collaboration and reflection on games embedded in children's cultures
- Technology can provide a vehicle to support this.



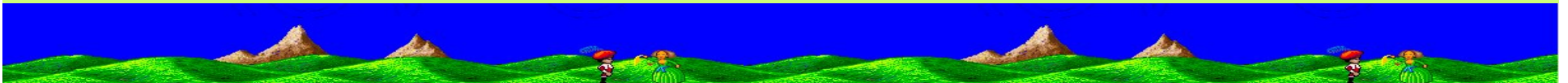
Collaboration - Peer Mentoring

Teacher works with a small group of students, who teach another small group.

Students support each other both face to face and online

High school students support primary students

Students support teachers



Collaboration Tools - SharePoint

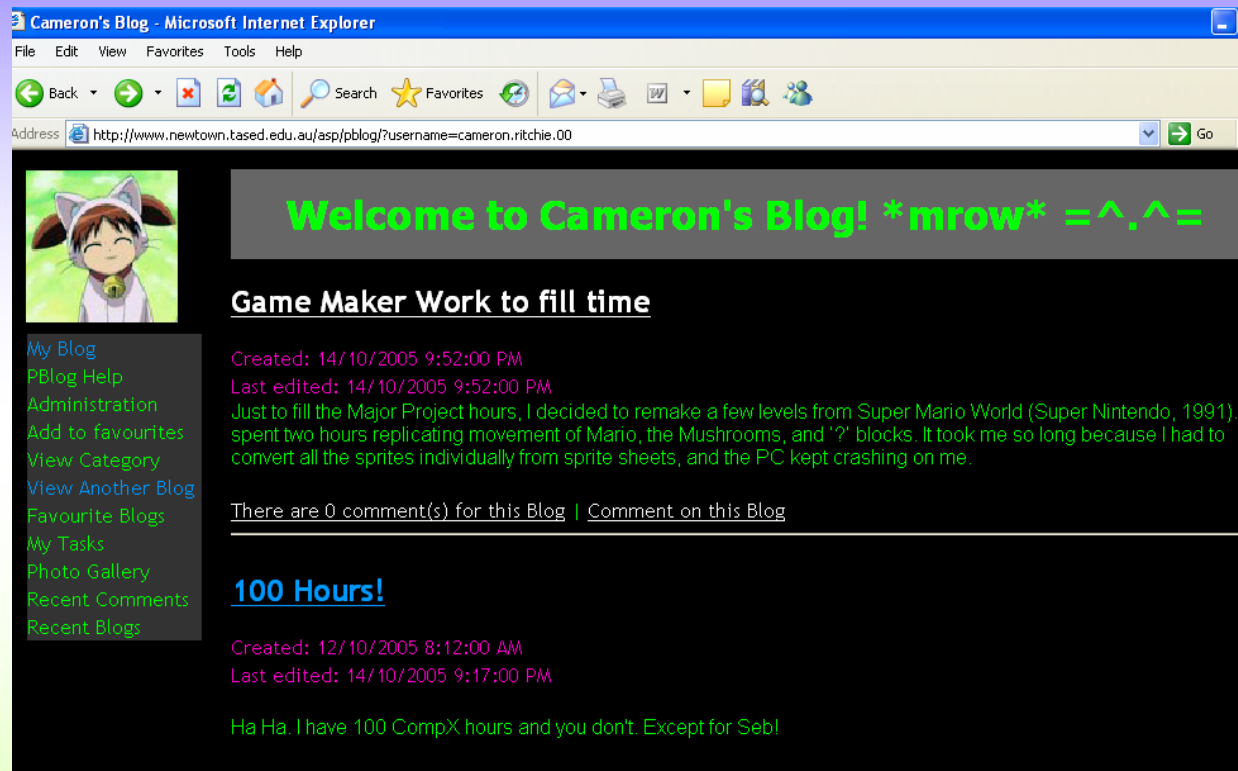
Supports discussion, peer review and collaborative peer assessment

The screenshot shows a SharePoint survey interface. At the top, there is a navigation bar with links: Home, Documents and Lists, Create, Site Settings, and Help. Below this, the site name '9IT1 Class Site' is displayed, followed by a highlighted 'Fred Blogs' link and a score of '.00'. A toolbar contains the following actions: Edit Response, Delete Response, Alert Me, and Go Back to Survey. The main content area is titled 'Rate this game:' and features a 5-point rating scale for four categories: Graphics, GamePlay, Instructions, and Overall. The 'Graphics' category is rated 4, 'GamePlay' is rated 3, 'Instructions' is rated 1, and 'Overall' is rated 5. Below the scale is a text input field for 'Any other comments:' with the text 'The little man is to slow. But it looks GREAT'.

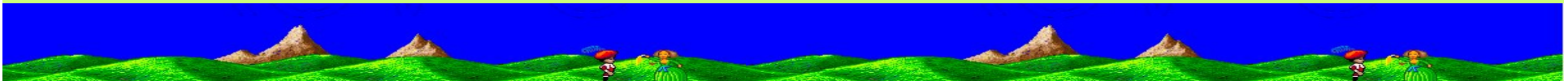
	Low	Average			High
	1	2	3	4	5
Graphics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
GamePlay	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Any other comments:
The little man is to slow. But it looks GREAT

Collaboration Tools - Blogs



- Worked with school technician to develop a safe blogging environment for Tasmanian students



Collaboration Tools - Moodle



New Town High School Moodle

You are logged in as Margaret Meijers (Logout)

English (en)

Welcome

Welcome to New Town High's Moodle site. Here you can participate in online courses and collaborate with other members of your class. Log in using your normal school username and password.

The word Moodle is an acronym for Modular Object-Oriented Dynamic Learning Environment. It's also a verb that describes the process of lazily meandering through

Available Courses

Computing

Making a Difference

Stage 1 Exam

Grade 8

9/10IT4 Computing

Introduction to Databases

Hardware and Operating Systems

Robotics

Flash Animation

Game Maker

Computing Extended

Hardware and Operating Systems copy 1

Staff PD

Klik & Play

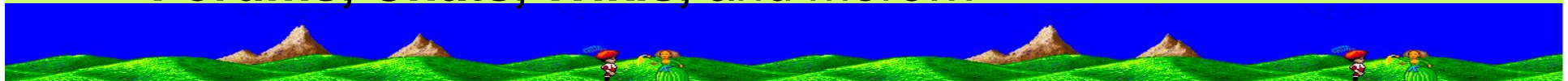
Turn editing on

Calendar

<< October 2005 >>

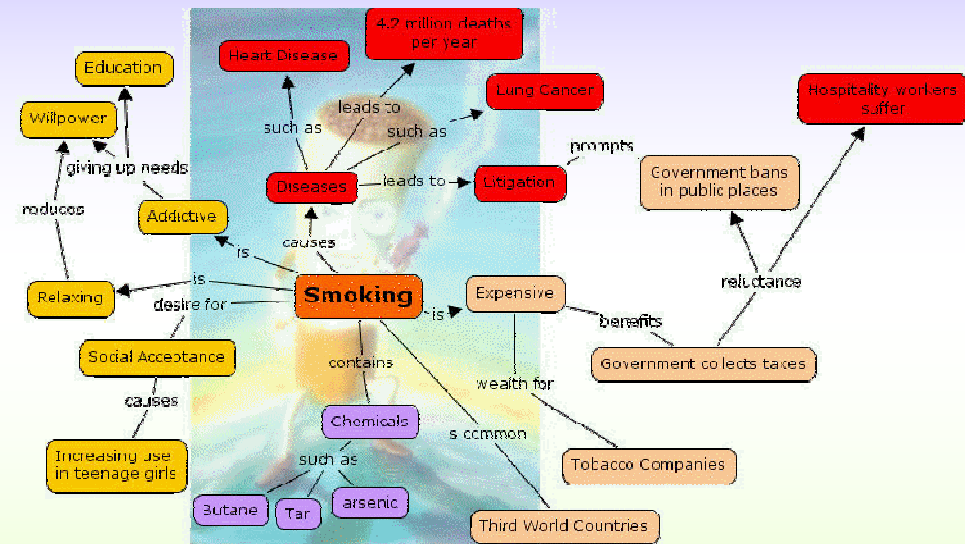
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Forums, Chats, Wikis, and more...



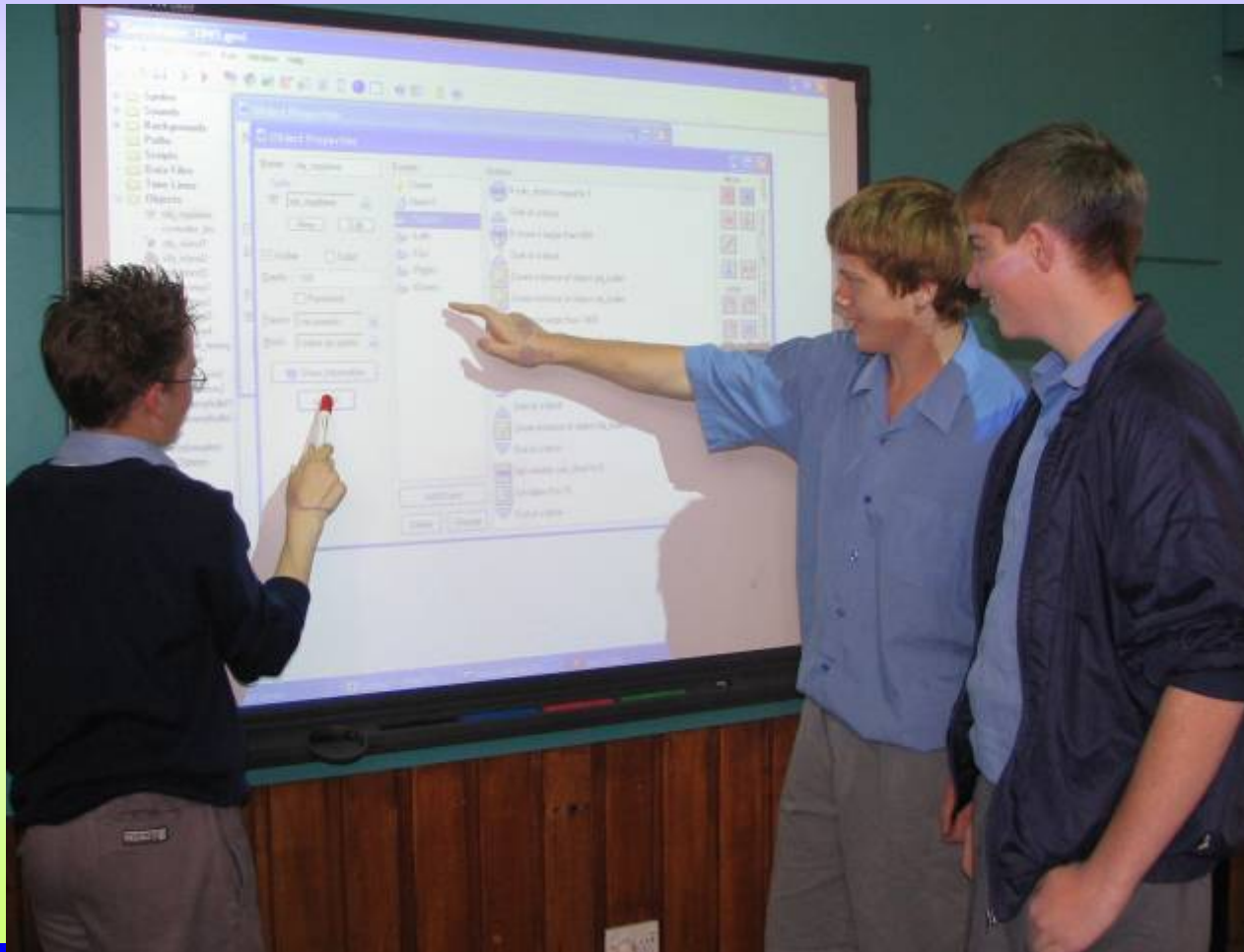
Collaborative Tools - CMap

- CMap enables students to build concept maps collaboratively and synchronously using a CMap server.
- Resources, such as games and images can be added.



Background image from Picture by Chris Bailey

Towards an Inclusive Learning Community

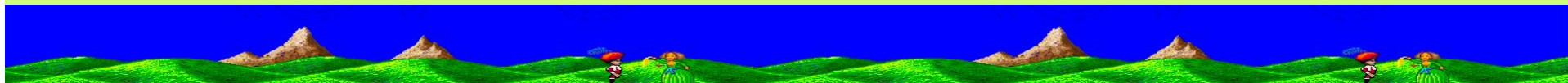


Special Needs - Autism

- Computers, games and technology provide an ASD friendly environment.
- They appeal to autistic fascinations with ordered systems, visual modes of thinking, and bold creativity.
- Enhances communication and social skills



- Leverage can be obtained to other aspects of schooling



Special Needs - Giftedness

- Primary students who are mathematically gifted
 - Algebra
 - Vector arithmetic
 - Positive and negative numbers
- Reduces boredom, provides an outlet for their talents
- Enhances social skills through collaboration

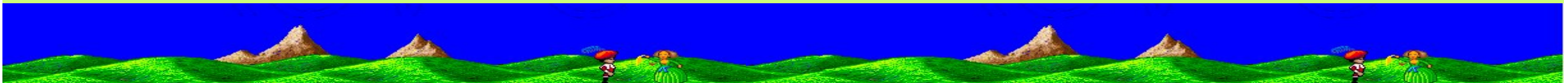
```
counter=0 //initialise the counter

repeat(10) //this loop will produce 10 balls at a time at 36 degree intervals around the circle
{
    counter+=36 //increment the counter by 36

    ball=instance_create(x,y,objBall) //create a new ball

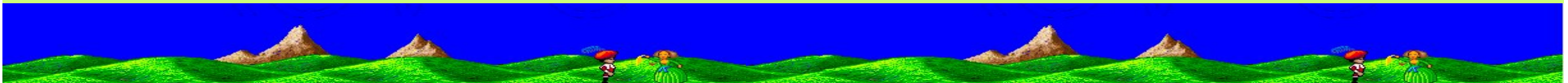
    ball.direction=counter //give it a direction

    ball.speed=5 //give it a speed
}
```



Special Needs – Disengaged Students

- Even disengaged students are continually learning
- Game making meets students in their own culture
- Makes learning ‘relevant’
- Enables students to see value in what they are doing
- Low reading/writing needs
- Promotes self esteem
- Success breeds success

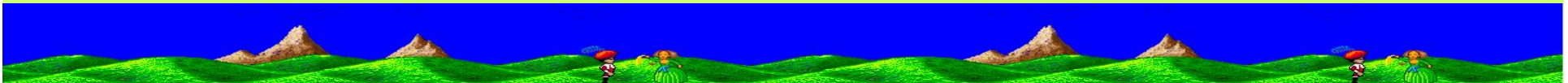


Lifelong Learning



institute for inclusive learning communities

- Undertaking postgraduate study and research in Game Making and Asperger's Syndrome



Further Information

- margaret.meijers@education.tas.gov.au

