

# MathsInvaders.com

# Guide for Teachers and Parents



Maths Invaders Online Guide for Teachers and Parents

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This manual is designed for use with Maths Invaders Online, www.mathsinvaders.com. It is to be read in conjunction with the EdAlive Central Guide for Teachers and the EdAlive Central Guide for Home Users. For more information go to central.edalive.com.

EdAlive Central is the foundational resource from which Maths Invaders Online and EdAlive's other Web Apps draw resources.

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## **About Maths Invaders Online**



#### What is Maths Invaders Online

Maths Invaders Online is a resource of unparalleled power and capacity for teachers of mathematics.

Maths Invaders Online is concurrently:

- A tables/maths fact teaching environment.
- An Adaptive Learning System that automatically manages student's progression.
- A real-time, interactive, multiplayer game.
- A comprehensive mastery learning programme.
- A massive Printable Maths Practice Worksheet Generator.

Not only does *Maths Invaders Online* teach tables and maths facts through repetition and sequencing but it also develops mental maths agility and fluency, and teaches mental maths patterns, tricks and strategies through the built in progressions that will stay with a student for a lifetime.

No other maths program packs so much into such an easy-to-use and motivational system. Its focus on developing critical maths facts and computational maths skills is laser sharp and incredible value for any school or family.



## **Maths Content Summary**

*Maths Invaders Online* starts with kindergarten level counting and simple addition, and builds through to addition, subtraction, multiplication and division tables all the way to challenging Year 10 calculations including powers and square roots. Throughout this journey it comprehensively covers computational maths and will foster a mathematical mind-set in students.

Covers: Addition • Subtraction • Multiplication • Division • Fractions • Decimals • Percentages • Numeration • Counting • Squares • Square Roots • Powers • Directed Numbers and more!

Age	5	6	7	8	9	10	11	12	13	14	15+
Numeration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>✓</b>
Times tables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Addition/subtraction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multiplication/division			✓	✓	✓	✓	✓	✓	✓	✓	1
Powers/roots							✓	✓	✓	$\checkmark$	✓
Fractions/decimals				✓	✓	✓	✓	✓	✓	✓	✓

## Children learn best when they are having fun

The fast and furious games built into *Maths Invaders Online* engage and motivate students to master mental maths.

- Carefully sequenced to build mental maths ability step-by-step.
- Little-by-little as skills increase the maths gets harder.
- The children are having so much fun they don't even realise they are learning.
- Players tackle 100s of questions in minutes.

## **Enhanced power**

The new *Maths Invaders Online* is built on the rich, multi-award-winning pedigree of the original *Maths Invaders CD* Edition. It has been upgraded and transformed to create a hugely powerful maths mastery learning system! The new capabilities include:

- Flexible, Internet delivery enabling integration between home and school.
- EdAlive Adaptive Learning System that automatically manages student's progress.
- Space Rescue real-time interactive, multiplayer game
- Galactic Campaign mastery learning system.
- Direct curriculum correlation
- Massive Printable Maths Practice Worksheet Generator.
- Printable certificates

# Individualised learning

The design of *Maths Invaders Online* enables each student to progress at their own pace and at their own level.

- Enables teachers and students to choose the number facts to be practised and then allows for repetition until mastery is achieved.
- Focus on areas needing attention or extension by selecting the same topic at a lower or higher level.
- Extends the gifted and supports those for whom learning maths is a struggle.



## Created by highly experienced teachers

Through multiple iterations from floppy disk to CD and finally to *Maths Invaders Online*, it has been a journey of over 25 years. Our team of highly experienced maths teachers has produced a masterpiece!

## Ease and power for teachers and parents

The Teacher/Parent Management sections put teachers and parents in control. It is powerful yet quick and simple to operate.

- 1. Powerful, flexible content selection allows activity to be focused according to the individual student's needs.
- 2. School Allocate the same content settings to the whole class
- 3. Historical reports to quickly give an understanding of how each child is progressing.
- 4. Swiftly identifies each student's strengths and weaknesses.

## **Builds maths fact fluency - automaticity**

Tables and number facts fluency is the quick and effortless (automatic) recall of basic math facts from long-term memory without conscious effort or attention. Every child should instantly recall that  $6 \times 8 = 48$  without counting on their fingers or in their heads. Table (maths fact) fluency is an essential life skill that should be achieved before a child leaves primary school.

*Maths Invaders Online* builds maths fact fluency enabling students to move maths fact processing out of their working memory so they can focus their mental capacity on operating mathematically.

## **Intrinsic motivators**

As students progress in their learning journey *Maths Invaders Online* provides instant dynamic feedback reinforcing progress question by question. The intrinsic motivation is amplified through progress reports, attainments, certificates and more.

## **Extrinsic motivators**

In addition to the intrinsic motivation of success there are multiple extrinsic motivators and motivational systems built into *Maths Invaders Online*. Extrinsic motivators include: the Defender *Level* system, progression through *Galactic Campaign*, the single and triple star systems in *Galactic Campaign* that denote mastery of a *Topic*, the counters at the top of the *Main Menu Screen* and the *Space Rescue* game.



# **Interaction with EdAlive Central**

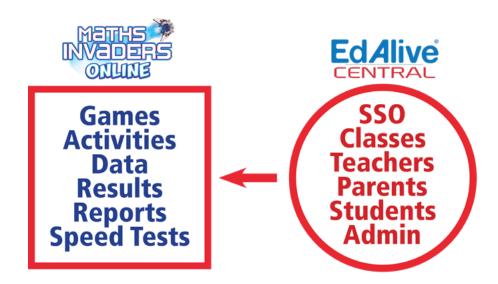
Maths Invaders Online is part of the EdAlive Central Learning Environment.

*EdAlive Central* is the ground-breaking innovation that unites *EdAlive's Web Sites (Web Apps)* into one seamless system.



## **Dynamic interaction**

Each of the EdAlive Central linked Web Sites draws resources and services from EdAlive Central.



## **Quick Start Guide**

## **Step 1 - Set up EdAlive Central**

In order to access *Maths Invaders Online*, you'll first need to register an *EdAlive Central Account* for either *Home* or *School* use.

The user-friendly management system at <u>central.edalive.com</u> is the core of the *EdAlive Central* suite of websites(*Web Apps*) and provides a unified interface for administering *Classes*, *User Accounts*, *Subscriptions* and other shared data across all of the *Web Apps*.



## Locate the EdAlive Central School Use Guide

To find the *EdAlive Central School Use Guide* go to <u>help.edalive.com</u> and scroll to the bottom of the screen.

Go to the *Getting Started* section of the <u>EdAlive Central School Use Guide PDF</u> and follow the instructions to establish your account, link your school, set-up your class and add students.

## Locate the EdAlive Central Manual for Parents

To find the EdAlive Central Home Use Guide go to help.edalive.com and scroll to the bottom of the screen.

Go to the *Getting Started* section of the <u>EdAlive Central Home Use PDF</u> and follow the instructions to establish your account and create accounts for your family.

## Step 2 - Start using the chosen Web App

Once you have set up your account for home or school you are ready to start using any of the chosen *EdAlive Central Web App* for which you have an active subscription or a free trial.

#### Locate the relevant Home/School Use Guide

To get the most from each *EdAlive Central Web App* we recommend that you consult the relevant *EdAlive Central Web App Guide*. To find the *Guides* go to <u>help.edalive.com</u> and scroll to the bottom of the screen.



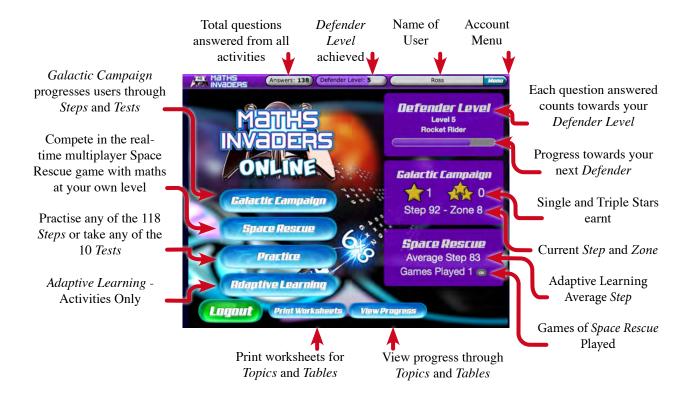
# **Navigating in Maths Invaders Online**

#### Go back to Teacher Management or Parent Management

You can navigate back to the *Teacher or Parent Management* screen at any time by selecting *Teacher Management or Parent Management* from the *Account Menu* that displays towards the top right of most screens.

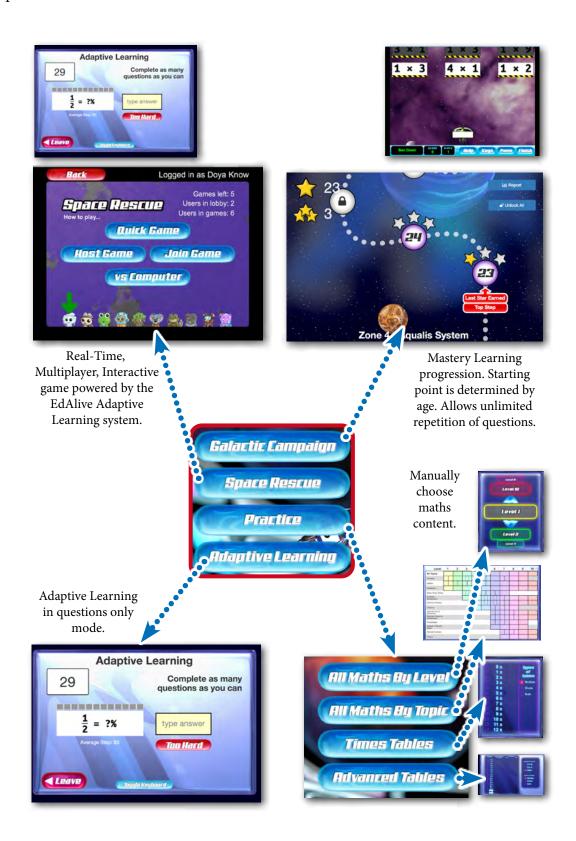
#### The Main Menu Screen

Use the Main Menu screen to navigate quickly to all of the key Maths Invaders Online functions.



## Key components

There are four main components each designed to give users access to the maths content in different presentation modes. The choices range from automated adaptive learning to full manual selection. All sections then interact with the curriculum correlations, printable worksheets, reports and Defender Levels.



## Menu Bar navigation



## **Tools & Reports**

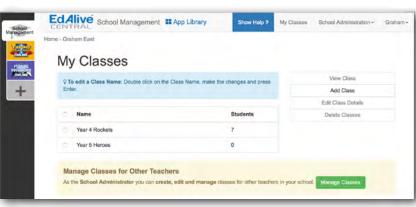
You can access the *Tools & Reports* screen at any time by selecting *Tools & Reports* from the *Your Name* menu that displays towards the top right of most screens.



## Switch between EdAlive Web Apps and Management

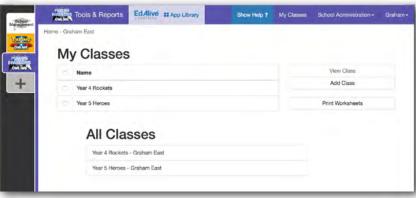
Switch quickly betweenthe *EdAlive Web Apps* for which you have active subscriptions or current trials and the *School* or *Family Management* sections.









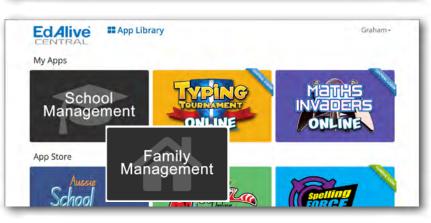


Click the tab to access



Goes to the *EdAlive App Library* from where you can add new apps.

Add new subscriptions here as required.



# **Starting Maths Invaders Online - 1st time**

The first time students log in to *Maths Invaders Online* they are presented with a simplified *Main Menu* screen that guides them to activities that help them to set their approximate entry level. They can can choose between:

- The *Galactic Campaign* mastery learning progression where their starting level is determined by the entry of their age.
- The Space Rescue real-time, interactive, multiplayer game that automatically levels students using the EdAlive Adaptive Learning system.



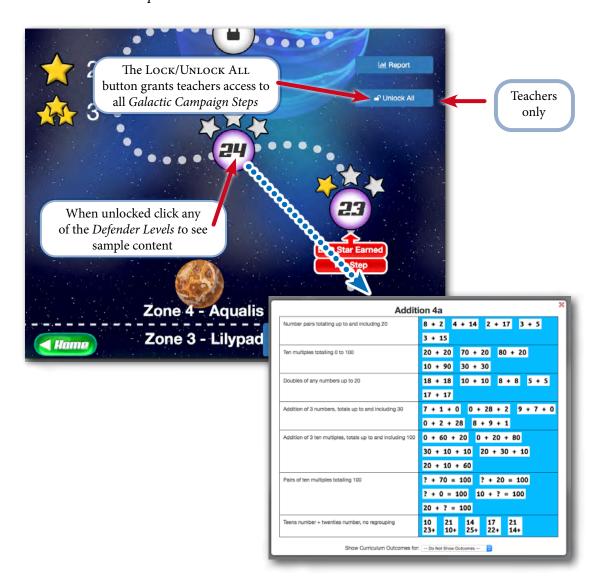
# **School Teacher Access**

Teachers can access a special *Teacher Access* version of *Maths Invaders Online* from within the *School Management* section. This special version allows teachers to experiment with *Maths Invaders Online* without the need for a separate login. To access the *Teacher Access* version:

- 1. Choose *Start Maths* from the *Account Menu* in the top right hand corner of the *School Management* screen.
- 2. You will then enter a fully functional version of *Maths Invaders Online*.

## Unlock Galactic Campaign Steps

Once in the special *Teacher Access* version of *Maths Invaders Online* teachers can enter the *Galactic Campaign* mode and unlock all of the 128 *Steps* including 10 *Level Tests* so that they can preview the activities in the *Step*.



## **Maths Content**

The *EdAlive* design team created the core teaching sequence at the heart of *Maths Invaders Online* by de-constructing the teaching of computational maths into a series of 850 carefully crafted activity types or *Units*. We then programmed 850 individual algorithms to create an endless stream of questions for each of the activity types. The resulting fine-grained sequential learning progression comprehensively covers numeration and most aspects of computational maths and works towards math fact fluency and mental maths agility.

The endless stream of levelled, sequenced *Questions* that is generated by the algorithms is fed into *Maths Invaders Online* to create the waves of descending Invaders in the Maths Invaders Game and the EdAlive Adaptive Learning System that controls the presentation of questions in *Space Rescue*.

## **Organisation of the Maths Content**

#### Overview

The maths content in *Maths Invaders Online* is organised into 850 *Units* which are grouped into 128 sequential *Steps* including 10 *Level Tests*. The *Steps* are organised into the *All Topics* matrix by *Levels* and *Topic*. An additional specialised algorithm, with variable inputs, generates a massive range of multiplication and division tables.

## **Years 1 – 10**

*Maths Invaders Online* starts with Year 1 counting and simple addition and builds up to more complex addition, subtraction, multiplication and division tables all the way to challenging Year 10 calculations including powers and square roots.

From beginning to end *Maths Invaders Online* comprehensively covers computational maths and fosters the development of a mathematical mind-set in students.

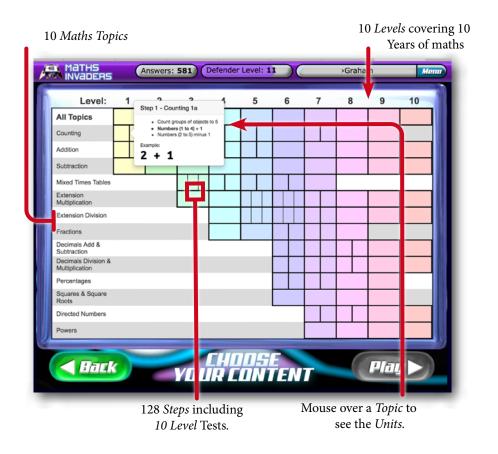
#### Maths skills covered include:

- Lower Primary activities: counting & numeration, addition, subtraction.
- Middle Primary activities: numeration (place value), addition, subtraction, tables (multiplication facts), multiplication extension, division, fractions, squares, square roots, decimals.
- Upper Primary/Lower Secondary activities: numeration, addition, subtraction, tables, multiplication & division, fractions, decimals, percentages, powers, squares & square roots, directed numbers.



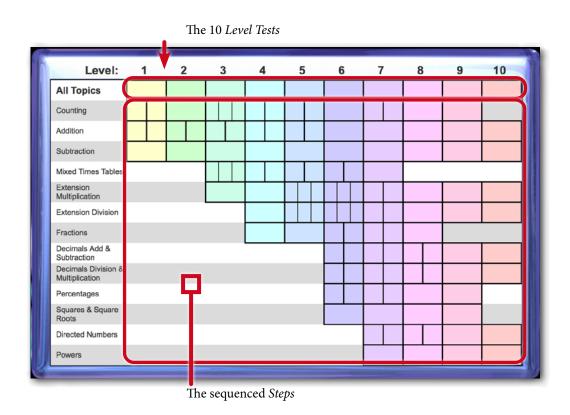
## 128 Steps over 10 Topics and 10 Levels

The *All Topics* matrix is displayed in multiple locations within *Maths Invaders Online*. Depending on the context it can be used to select content, display progress or access reports.



## Steps and Level Tests

The 128 *Steps* including the 10 *Level Tests* are organised into a sequenced progression used in the *Topic Selection Matrix, Galactic Campaign* and the *EdAlive Adaptive Learning System*. At the end of each of the 10 *Levels* there is a *Level Test* which is incorporated into the *Step* numbering system.



# The Adaptive Learning System

#### Automatically optimises each child's progression

Maths Invaders Online is powered by the advanced EdAlive Adaptive Learning System.

The system uses complex algorithms to automatically create and maintain an optimised learning pathway for each child.

- Analyses each student's responses in real-time.
- Rapidly establishes each student's base learning level.
- Automatically challenges and progresses each student.
- Frees teachers and parents from the tedium of analysing children's responses and manually creating learning sequences.



- Acts as an intelligent, dedicated tutor, continually monitoring and progressing each child.
- Teachers can set up an entire class in a matter of moments and be confident that each child is progressing at their optimal rate
- Liberatingly simple to use

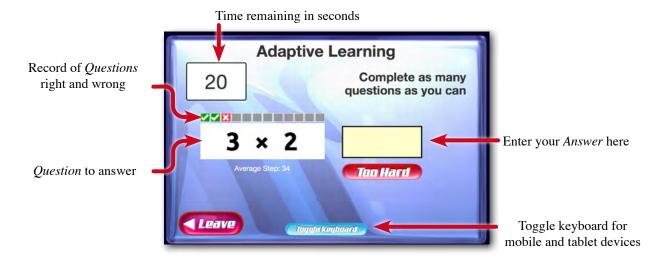
#### Constant automatic levelling

At the commencement of each round of *Questions* the *EdAlive Adaptive Learning System* analyses the student's recent results and then automatically chooses the new content to present. The questions will come from a range of *Steps*. Correct answers enable *Questions* to be drawn from more difficult *Steps*. Incorrect answers or the use of the Too HARD button will reduce the difficulty of the *Steps* from which the *Questions* are drawn. The system will gradually introduce more difficult content as students prove that they are ready for it. It is designed to challenge students whilst building their confidence.



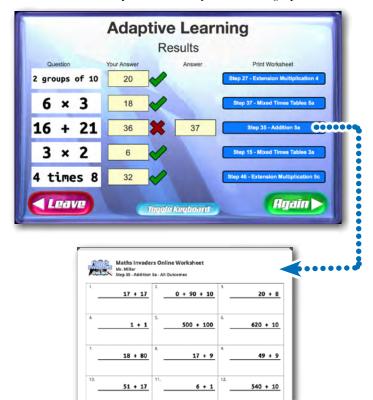
## The Adaptive Learning Question Screen

The *Adaptive Learning Question Screen* displays in the question rounds in the *Space Rescue* game and in *Adaptive Learning* option.



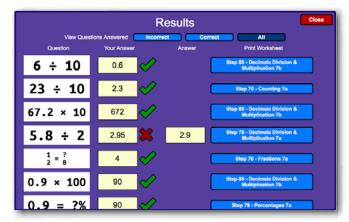
#### Adaptive Learning Result Summary

At the conclusion of each Adaptive Learning session a review screen is generated showing the student's answers, whether the answers were answered correctly or incorrectly and if required, the correct answer. Each Question is directly linked to a printable practice worksheet



Result Summary from the Adaptive Learning option

Result Summary from Space Rescue



#### Inputs to the EdAlive Adaptive Learning System

The EdAlive Adaptive Learning System is constantly evaluating the inputs from the students. Accordingly it dynamically adjusts the level of content being presented. The algorithm that controls the function of the EdAlive Adaptive Learning system is complex and take account of a range of factors including the history of correct and incorrect answers, the use of the Too Hard button and use over time.

- Unanswered *Questions* have no effect of the levelling.
- If, as sometimes happens, another party operates in a student's account (like an older sibling or parent demonstrating their maths prowess) then the system will quickly reset to the student's level once they resume use of the account.

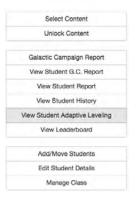
#### Adaptive Learning Report

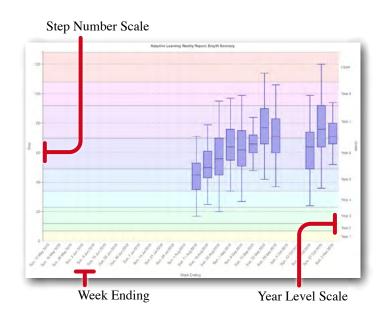
This report reflects work completed in both the *Adaptive Learning* option and from the operation of the *Adaptive Learning System* when playing the *Space Rescue* game. As users answers more questions the *EdAlive Adaptive Learning System* dynamically adjusts its focus to the needs of the student.

#### To select the Adaptive Levelling Report

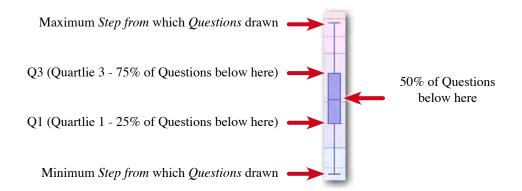
From the *Maths Invaders Online Tools and Reports* section select the *Class* and the Student(s) for whom you wish to view the Adaptive Levelling Report. Click the View Student Adaptive Levelling button.

The following report will appear:





The following information is shown week by week for the selected student.



## **Curriculum Correlations**

#### How the curriculum correlations work

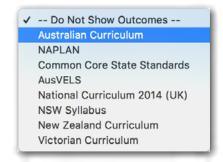
Each of the 850 *Units* that underpin the 128 *Steps* including 10 *Level Tests* that form the 10 *Levels* in *Maths Invaders Online* are correlated against the relevant curriculum outcomes for the curricula covered. The display of the curriculum correlations can be toggled on and off. When toggled on the outcomes fulfilled by the selected *Units* are displayed when viewing relevant locations and on the bottom of the printed worksheets.



The individual correlations are accessible from the *Teacher Management Module* and are displayed wherever the *Steps* and *Units* occur in *Maths Invaders Online* including all relevant printed reports and worksheets. This tight integration between *Maths Invaders Online* and the curricula allows teachers to use *Maths Invaders Online* to use students' achievements as evidence of mastery of an outcome.

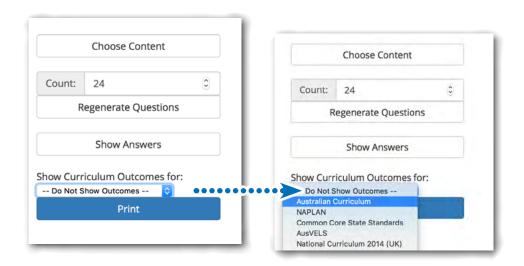
#### **Curricula covered**

- 1 The Australian Curriculum.
- 2. NAPLAN.
- 3. Common Core State Standards (USA).
- 4. National Curriculum (UK).
- 5. NSW Syllabus 2014.
- 6. New Zealand Curriculum.
- 7. The Victoria Curriculum.



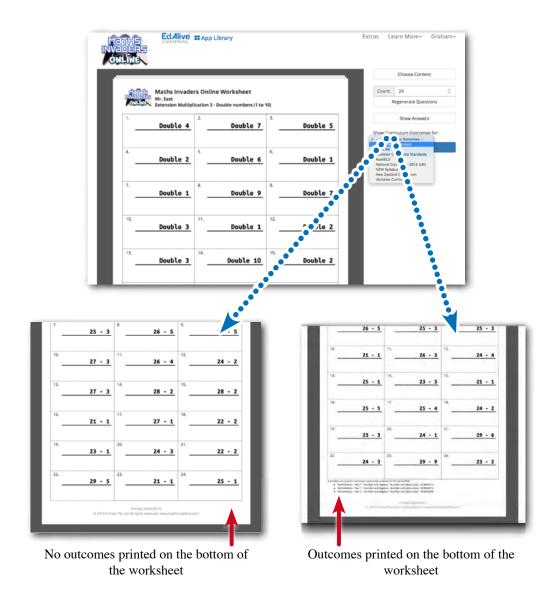
## Changing the displayed curriculum

To toggle the curriculum display on and off and to change the displayed curriculum, select from the *Curriculum Pop Up* menu.



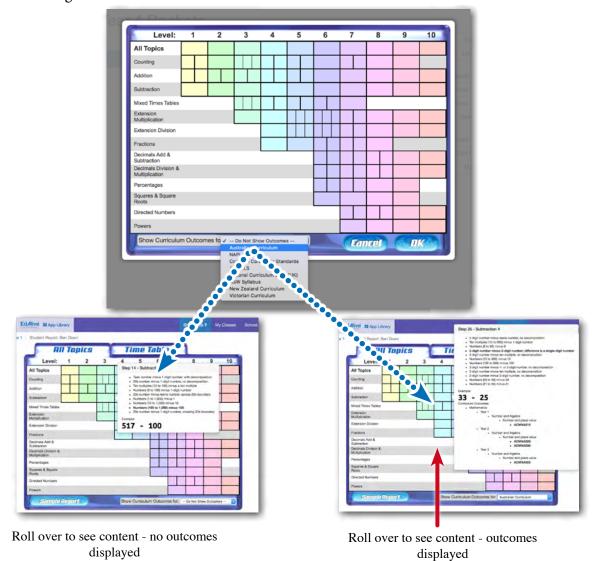
## Printed Worksheet and Curriculum Correlations

Wherever the *Print Worksheets* dialogue is accessible it is possible to select from the range of curricula against which to correlate.



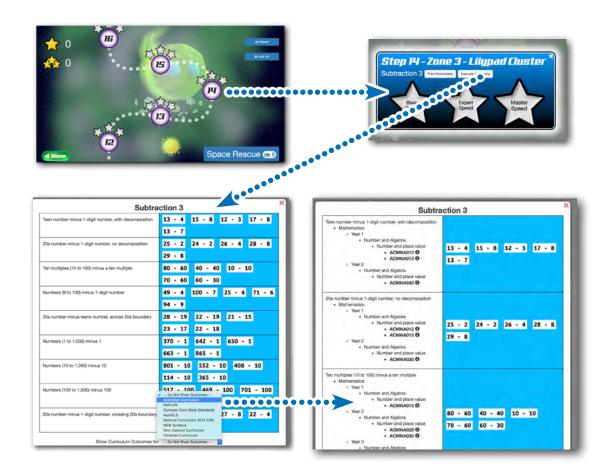
## Topic Selection dialogue and Curriculum Correlations

Wherever the *Topic Selection* dialogue is accessible it is possible to select from the range of curricula against which to correlate.

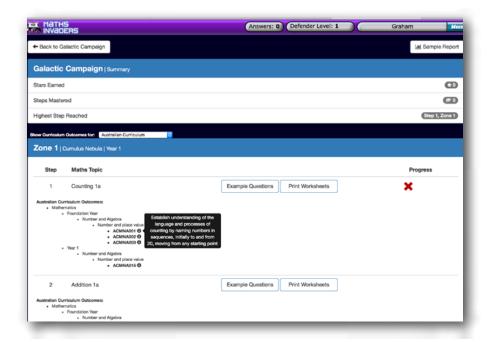


## Galactic Campaign and the Curriculum Correlations

The *Steps* within the Galactic Campaign correspond to the *Topics* in the *Topic Selection* dialogue. *Curriculum Correlations* can be displayed for each *Step*.



Curriculum Correlations can also be displayed in the Galactic Campaign report.



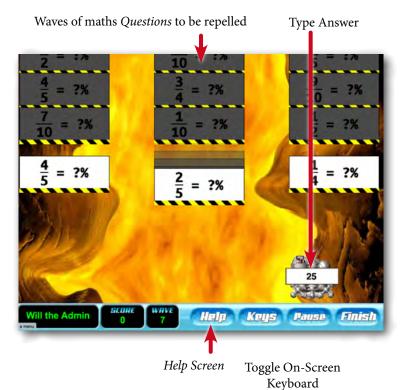
# **Maths Invaders Game**

At the heart of *Maths Invaders Online* is the fast-paced Maths Invaders game. Students can complete over 1,800 maths questions per hour. That's one every 2 seconds! No other maths game gives so much maths practice in so little time!

Save the planet from waves of descending maths questions! Only the correct answers will stop them. If you run into the invaders or they get to the bottom of the screen, you're INVADED!

- Challenges players with the chosen maths Questions.
- Exciting game-play with increasing speed.
- 8 different space environments.
- Effort is rewarded, and motivation enhanced through instant feedback.

# Main game screen





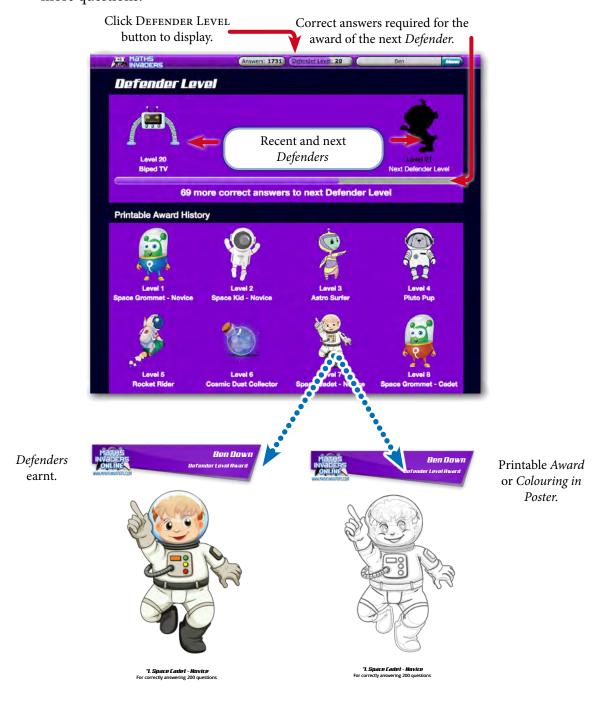
## Help screen



# **Defender Level (Achievements)**

The *Defender Level* system is designed to reward students for effort independently from mathematical achievement. It rewards tenacity and commitment to the task. Some students have to exert much effort to master maths with the intrinsic reward from so doing not sufficient to keep them on task. With the *Defender Level* system every question answered correctly counts towards the next *Defender*.

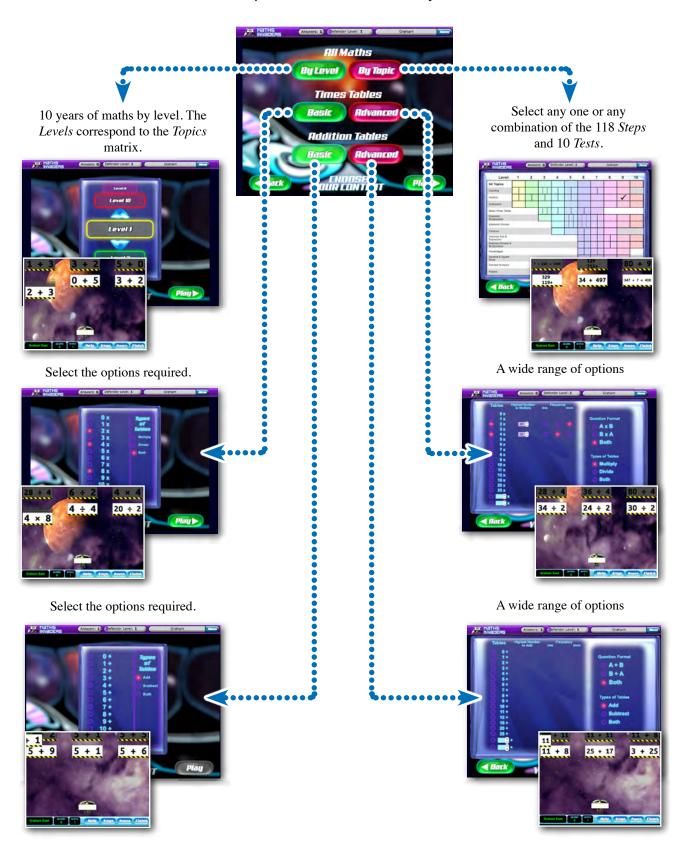
- Rewards students for each question answered.
- 180 Defenders with each one requiring extra questions to be answered over the previous one.
- The images and names are designed to fascinate and motivate students to answer more and more questions.



# **Practice Mode**

The *Practice Mode* allows students to choose any of the 128 *Steps*, including 10 *Level Tests*, or any combination of multiplication or division tables and practise them over and over again.

Each Question answered correctly feeds into the student's Defender total.



# **Galactic Campaign - Mastery Learning Mode**

*Galactic Campaign* is a mastery learning system that automatically guides students through the carefully graded *Steps* that are comprised of 128 *Steps*, including 10 *Level Tests*, covering 10 years of maths.

- 1. Students can begin in *Zone 1* (Year 1) or use the *Skip Here* pre-test to commence at a higher grade.
- 2. Students then choose between progressing to the next *Step* at the *Basic Speed* or staying on the same *Step* and repelling the Invaders at faster speeds.
- 3. At each *Step* students can produce bespoke PDF worksheets to help them strengthen their maths skills.
- 4. Students are rewarded with points towards their *Defender Level* and *Galactic Campaign Stars*, *Triple Stars*, and the *Step* attained.
- 5. Enables the students to progress with little teacher input. The teacher does not have to adjust their *Level* and only needs to intervene when and where the *Report* shows a need.

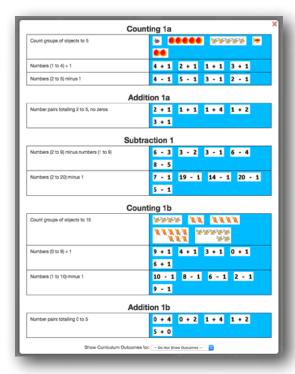


#### First use

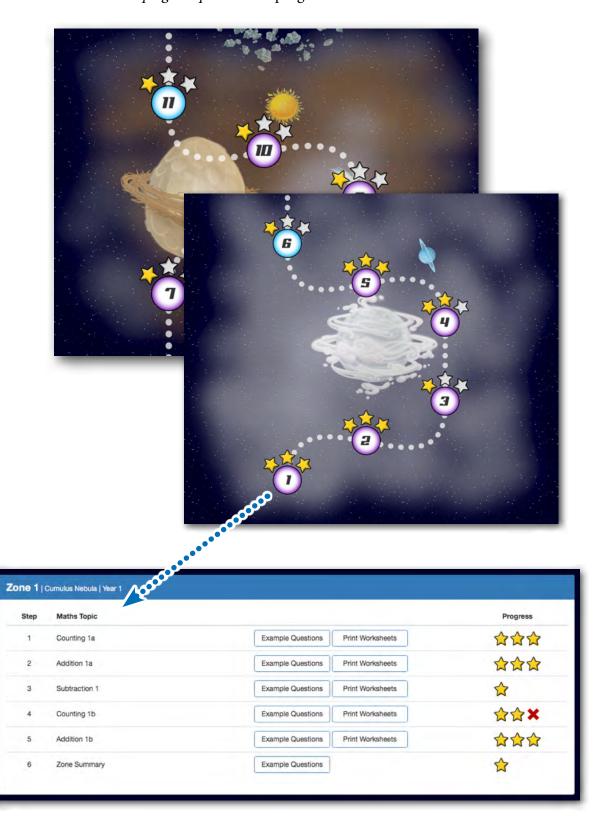
The first time a student starts using *Galactic Campaign* they are prompted to select a *Year Level* appropriate to their approximate maths capability.



The Example Questions button will show examples of the kinds of maths questions they will encounter at the selected *Year Level*.

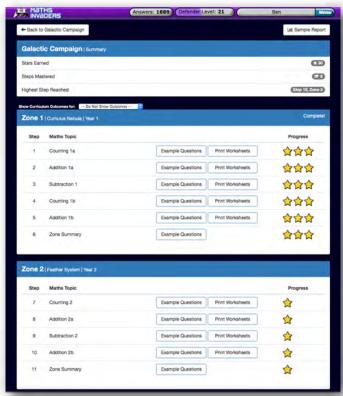


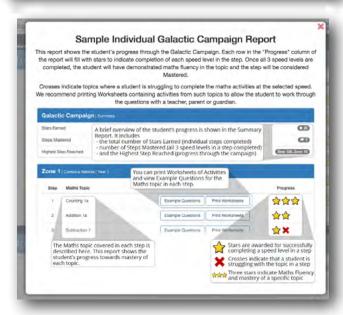
Click on a Galactic Campaign Step to see the progress to date.

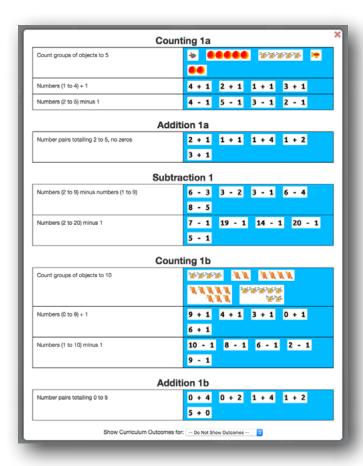


## **View the Galactic Campaign report**









# **Space Rescue**

*Space Rescue* is an Interactive Real-Time, Multiplayer Game that is fully integrated into *Maths Invaders Online*.

Space Rescue harnesses the appeal of online gaming and teams it with the EdAlive automated *Adaptive Learning System* to motivate students and engage them with maths questions that are just right for them.



#### The Game Scenario

Players compete against each other or *Smart Computer Players* to rescue stranded ships, lost in space. To charge their *Rescue Scanner* they must answer *Questions* presented to them by the *EdAlive Adaptive Learning System*. The innovative turn-based design maximises the time doing educational content and minimises time waiting for other players.



#### It all Happens in Real-Time:

- All interactions within the game happen instantly and each player is immediately aware of other player's moves.
- The answers to *Questions* are scored immediately and a *Question and Answer Summary* is displayed at the conclusion of each game.



### Multiplayer Engagement:

- Students play against the computer or up to 3 other students selected from their class, or anywhere the world.
- To play against students in their own class students can initiate a game of *Space Rescue* as the *Host* and then invite others to join them.



#### **Smart Computer Players**

- When there are insufficient human players to join a game, the computer generates players to compete against.
- The computer generated players use dynamic feedback from the game to auto-level their ability to match the capability of the students. This ensures that human players of various abilities are actually able to win the game (but not always).

#### Interactive Fun:

- *Space Rescue* is not just a first past the post race. It's a full on, real-life tussle with the other competitors with incredible motivational appeal.
- The choices made by one player dynamically effect the game-play for all. As in games like Chess and Monopoly each move immediately effects the options for others. This dynamic interaction greatly boosts the engagement of the students.

#### Adaptive Learning:

- The automated EdAlive Adaptive Learning system ensures that each student is presented with maths content that has just the right level of challenge for them.
- Teachers can be confident that students are always working on content that is targeted just for them without having to monitor and adjust settings.



## **Playing Space Rescue**

*Space Rescue* can be played by a student on their own or in a group. It is easy to start, join or host a game. The system automatically does all of the hard work for teachers and parents. It concurrently manages the game play, recalculates the options for each player and automatically delivers maths optimised for each student and then reports on *Questions* completed.

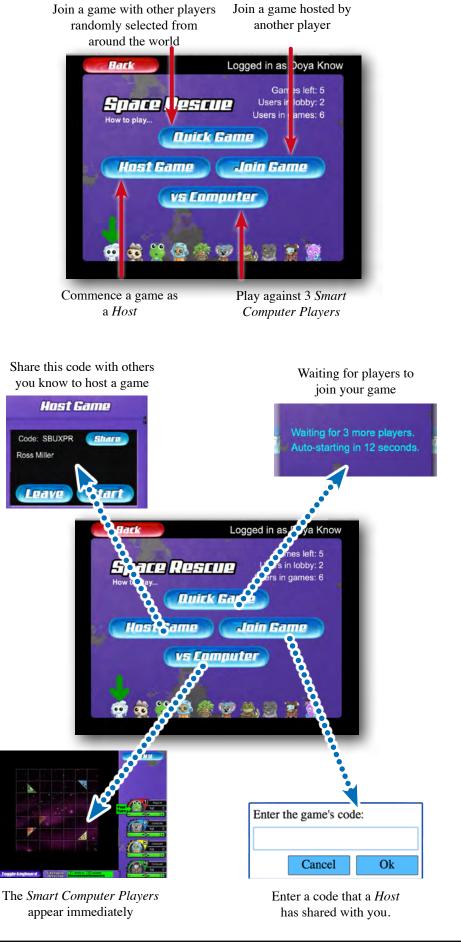
### Choose a game complexity

To get started students click on the SPACE RESCUE button on the *Home Screen* and select either the *Basic* or the *Advanced Game*.

- The Basic game is suitable for younger students and is quicker to play
- The *Advanced Game* is more complex and has more tiles to explore. It features a range of gadgets that students can use to effect the gameplay of others. It takes a little longer to play.

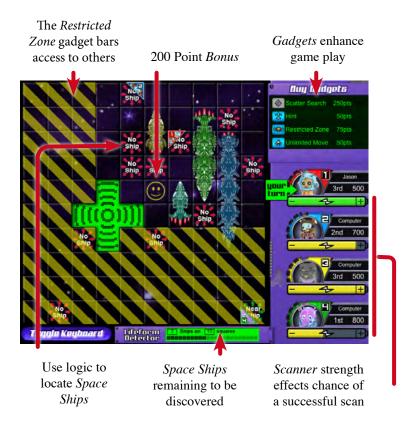


### Choose to play alone or with others



### Use logic and deduction to play the game

To play *Space Rescue* students must use logical and deduction to predict the location of the parts of the *Space Ships*. The game strategy is ever changing as other players discover parts of the ships. To succeed players must develop and constantly reevaluate their strategy as other players make their moves.



### Questions from the EdAlive Adaptive Learning System

Between each round of game play students must answer a series of *Questions* as determined by the *EdAlive Adaptive Learning System*.

For details of the operation of the *Adaptive Learning System* see the relevant section of this publication.

The System starts by reviewing the student's results and then automatically choosing fresh optimised content.



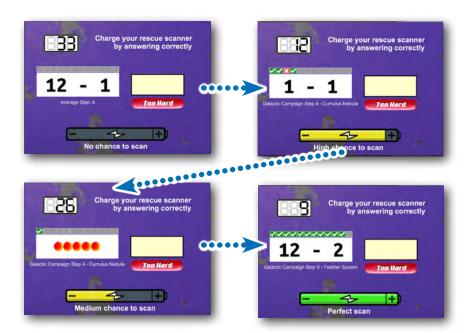
Up to 12 levelled questions are then presented.

- The student completes as many *Questions* as possible in the allocated time.
- Even though there is a timer running there is no penalty for unanswered questions.



## Scanner Strength

The more *Questions* that are answered correctly the stronger the *Scanner Strength*. The higher the *Scanner Strength* the greater the possibility that, when playing the game and scanning a *Tile*, that the scan will be successful in revealing the presence or otherwise of a *Space Ship* in the *Tile*.



### Finishing Sequence

After the last ship is found *Space Rescue* allocates point credits for the winners of a range of criteria. All the points are then tallied and a winner declared.

A Results Summary Screen is then displayed.





Teachers and parents can set and lock content for students using the Set Content option.

- 1. Content can be selected from any of the Topics or Times Tables.
- 2. Once *Content* is set a student signing in will be prevented from attempting any other content or activity within *Maths Invaders Online* for the duration of the set time.
- 3. Set Content can be unlocked using the Unlock Content button.

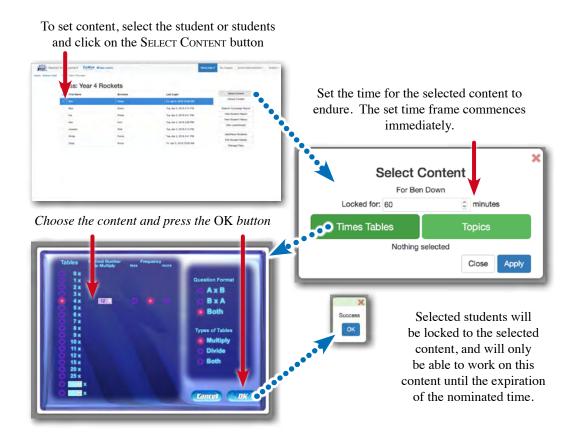
Parents and teachers can use the *Set Content* option to direct a single child or group of students to work on a nominated maths skill. Perfect for setting classroom work!

### **To Select Content**

Teachers access the *Select Content* dialogue from the class list in the *Maths Invaders Online Teacher Management* screen.



Parents access the Select Content dialogue from the My Children screen.



### **To Unlock Content**

Teachers access the *Unlock Content* function from the class list in the *Maths Invaders Online Teacher Management* screen.



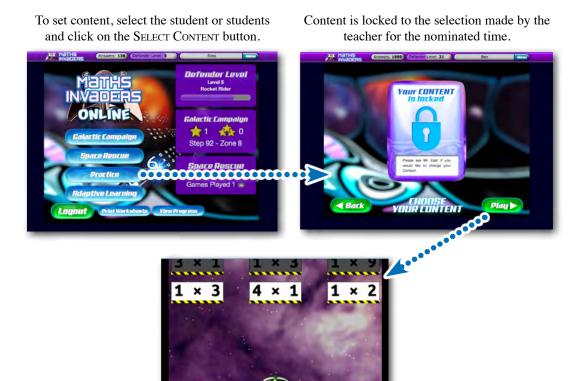
Parents access the *Unlock Content* function from the *My Children* screen.



To cancel set content, select the student or students and click on the Unlock Content

### What Students/Children see

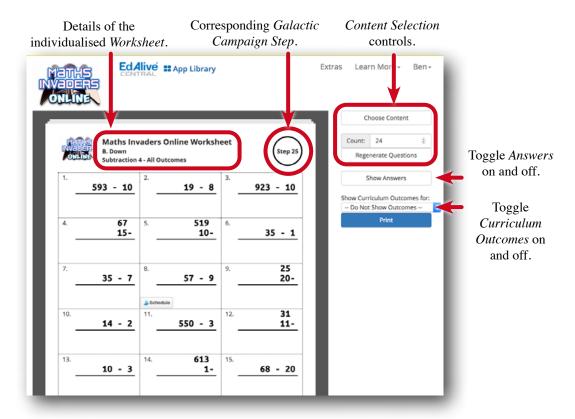
Once the *Set Content* option has been activated the students/children using *Maths Invaders Online* will be locked out of other activities for designated time. Once the designated time has expired the function returns to normal.



## **Printable Practice Worksheets**

An unlimited number of *Printable Practice Worksheets* can be generated either by a student as they work or by a teacher from the *Teacher Management Module* or a parent from the *Parent Management Module*. Throughout *Maths Invaders Online* there are multiple points of access to the *Printable Practice Worksheets*.

- 1. Each *Worksheet* is specific to one of the 118 *Steps (the Level Tests are not included)* or, if required, the 850 *Units*.
- 2. The *Questions* for each *Worksheet* are generated on-the-fly meaning that each *Worksheet* is unique and the number of variants unlimited.
- 3. Answer Sheets can be printed.
- 4. Correct answers and fulfilled *Curriculum Correlations* can be appended to the bottom of each *Worksheet*.



# Reporting

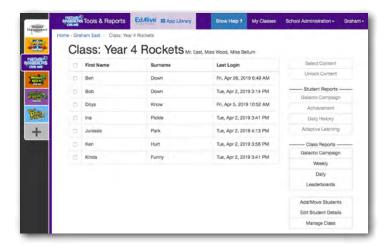
The reports relating to each student's activity within *Maths Invaders Online* are accessed from the *Tools and Reports* screen. (**NB** These reports cannot be accessed from the *EdAlive Central School Management or Family Management* screens).

# **Access Tools and Reports**

To access the *Maths Invaders Online Tools and Reports* screen and thence the reports go to *central. edalive.com* and login as a Teacher. Click on the *Maths Invaders Online* tile.



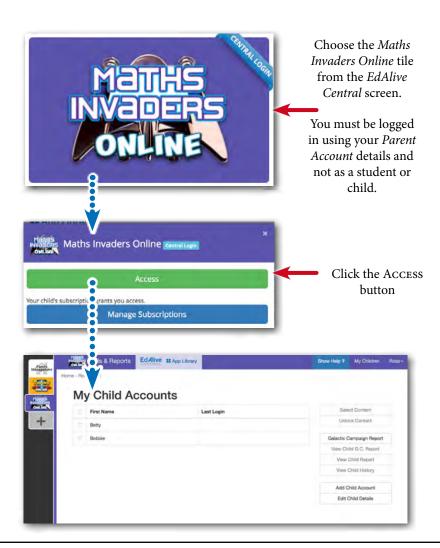
Select the class you wish to access the reports for and click on the View Class button. The following will appear:



The *Last Login* column shows the time and date of each student's last login. This is helpful if you are monitoring homework use or want to see which children haven't used the system for a while.

# **Home Access Tools and Reports**

To access the reports:



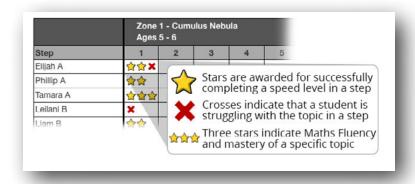


There is a series of incisive reports that facilitate the monitoring of individual and class progress.



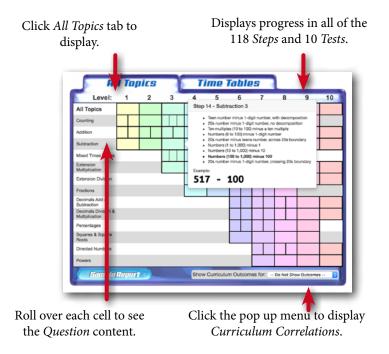
### The Galactic Campaign report

This report shows each student's progress through the *Galactic Campaign*. Each cell in the report will fill with stars to indicate completion of each speed level in the *Step*. Once all 3 *Speed Levels* are completed, the student has demonstrated *Maths Fluency* in the topic and the step will be considered *Mastered*. Crosses in the cells indicate *Topics* where a student is struggling to complete the maths activities at the selected speed. We recommend printing *Worksheets* containing activities from such *Topics* and working through the questions with a teacher, parent or guardian.



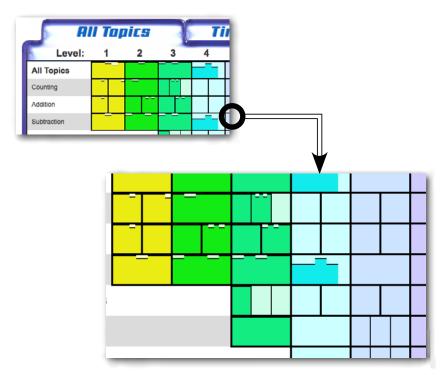
### View Student Reports - All Topics

The *All Topics Progress Report* shows the student's progress *Topic-by-Topic*. All results from all *Topic*-based work completed in any part of *Maths Invaders Online* is displayed in this report. Since the *Topics* are the basis of the progression in *Galactic Campaign* and the questions answered in *Space Rescue*, these results are included in this report.



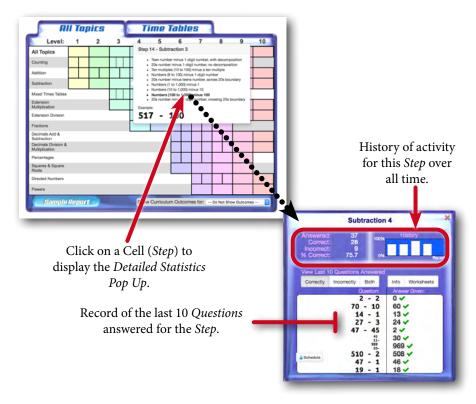
#### All Topics Progress Report Mini Graphs

Each cell in the *All Topics Progress Report* report includes a column graph representing up to 50 of the student's most recent *Questions* divided into groups of 10. Click on a column graph to view more statistics and the actual answers given for the last 10 *Questions*.

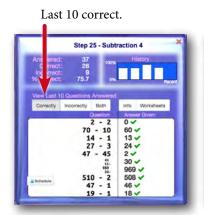


For example, if a student, John, were to answer ten Addition & Subtraction *Questions* with 7 correct and 3 incorrect, the bar would be three-quarters full showing a 70% correct rating.

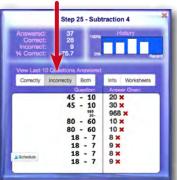
#### All Topics Progress Report Detailed Statistics Pop Up



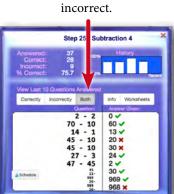
#### All Topics Detailed Statistics Pop Up - Last 10 questions



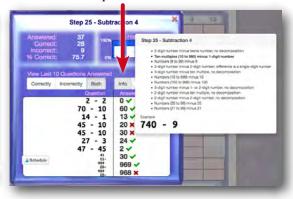
Last 10 incorrect.



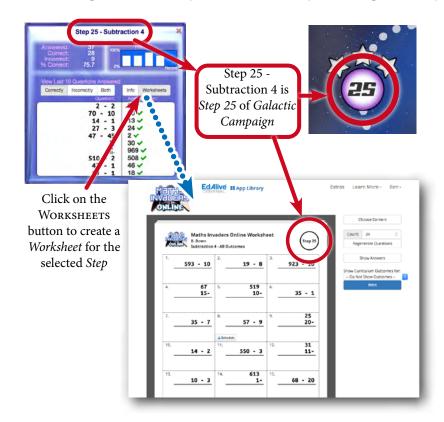
Last 10 correct and incorrect.



Info re the *Units* comprising the *Step*.



### Print Worksheets aligned to a Topic from All Topics Progress Report

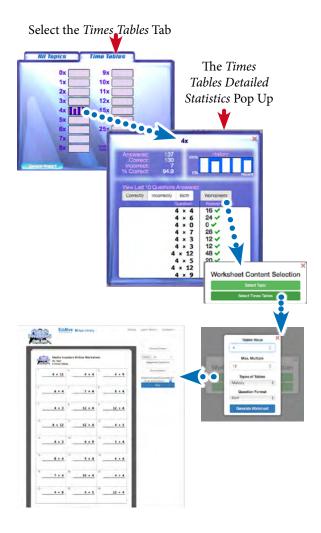


### Student Report - Times Tables

The *Time Tables* tab displays the results of work done in the *Times Tables Practice* section.

Each cell in the report includes a bar graph representing up to 50 of their most recent *Questions* divided in to groups of 10. Click on a bar graph to view more statistics and the actual answers given for the last 10 questions.

The operation of the *Times Tables Detailed Statistics* Pop Up parallels that of the *Detailed Statistics* Pop Up.





#### About the Leaderboards

The *Maths Invaders Online Leaderboards* are designed to boost individual student motivation and team engagement by challenging all members of a class to contribute to the overall ranking on the *Leaderboard*. Many teachers have indicated that working with the *Leaderboards* has had a remarkable effect on the maths performance of their classes.

Each correct *Answer* counts towards the weekly class tally that powers the *Leaderboard* which facilitates intra-school and inter-school competition.

Any member of the public may view the Leaderboards.

Only maths questions answered by students linked to a class at a school will contribute to the Leaderboards.

#### To access the Leaderboards

Go to the Maths Invaders Online Home Page.





Moment by moment the *Leaderboard* tracks and analyses all the answers completed by each student in every class and displays the results for those classes that meet the participation criteria.

The results refresh every 15 minutes. The *Leaderboards* enable classes to compete across a broad range of criteria thus maximizing involvement. Using the tick boxes to isolate different criteria, students can view the performance of their class by:

- 1. Country or state.
- 2. Age brackets.
- 3. The results just for your school.

#### History is kept

The *Leaderboard* system archives the results week by week enabling students to retrospectively view the performance of their class.

### Relative improvement is shown

Weekly improvements in class ranking relative to other classes is shown by green arrows.

#### Leaderboard details

For a detailed explanation of the operation of the Leaderboards click here *or* go to <u>www.</u> mathsinvaders.com/leaderboard/info.

#### Leaderboard opt out

Some schools may prefer that their classes are not displayed on the Leaderboards. If this is the case, the *School Administrator* can simply uncheck the *Participate in Competition* option on the My School screen of the School Administration menu. Please note we cannot remove results retrospectively.

The *Maths Invaders Online Leaderboards* do not display any *Personal Identifiable Data* for any student. Only aggregated class results are displayed.

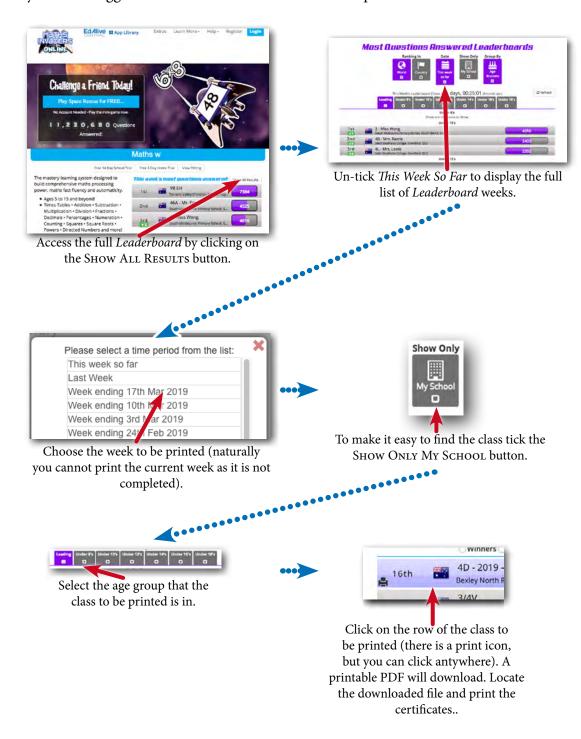
## **School** Leaderboard Certificates

*Leaderboard* participation certificates can be retrospectively printed from the archived history for the whole class.



## Leaderboard Certificates and printing

Only teachers logged in to their accounts can access and print *Leaderboard* certificates.

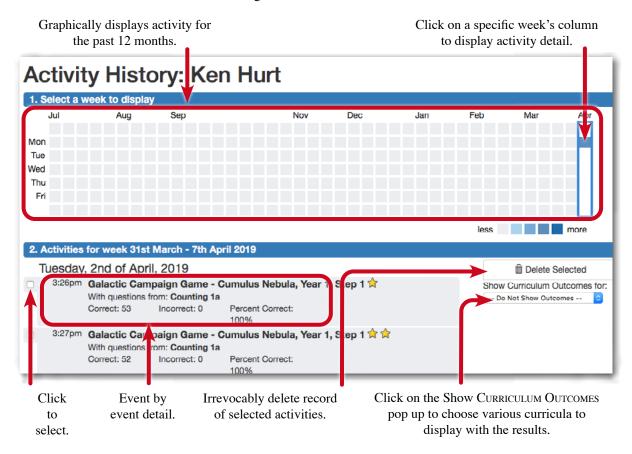


## **Daily History**

Shows the detailed day-by-day activity for each student. To view the report select the student and click the View Student History button.



The *Daily History* graph enables teachers to monitor student activity by analysing their activity over time. It also enables the resetting of student data.



#### View week-by-week activity

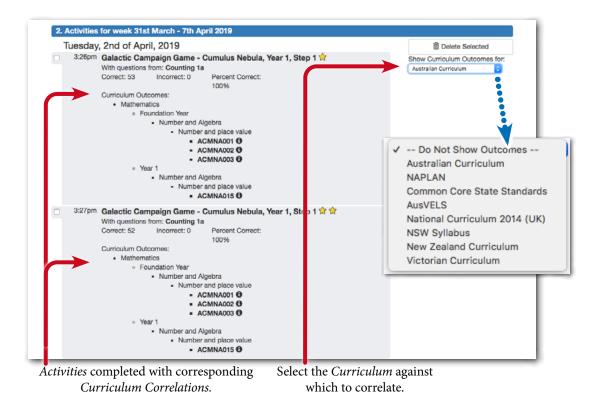
Click on a column to highlight the activity for any of 52 weeks. The details display below.

#### Delete specific activity history

Situations can arise that require the deletion of history for one of more activities for one or more students. Deleting the history resets the associated record of achievement and settings within *Maths Invaders Online* enabling students to re-challenge themselves with the same content. This facility is very useful where a family member or other student has been completing activities in the user's account thus skewing their record of achievement.

### Display results against various curricula

Maths Invaders Online is able to correlate student's results against multiple curricula.



#### Weekly Report - Whole Class

Shows the weekly activity for work done by the student for Adaptive Learning, Student Content Selections and Teacher Content Selections.

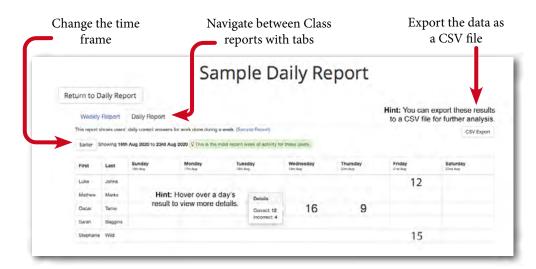
To view the report go to the Class screen and click the WEEKLY REPORT button.



### Daily Report - Whole Class

Shows the activity day-by-day for work done by the student over the past week for Adaptive Learning, Student Content Selections and Teacher Content Selections.

To view the report go to the *Class* screen and click the Daily Report button.



# **Printing**

## **PDF** printing

In order to maximise printing compatibility *Maths Invaders Online* sends its printed output to PDF files. The PDFs are saved to the default export location for your browser. To print the files open them in a PDF viewer and print.

## **Printed output available**

#### **Teachers**

Teachers can retrospectively print certificates for work previously completed by their Students.

- Leaderboard Certificates from previous weeks on the Leaderboard.
- Worksheets.

#### **Parents**

Worksheets.

### Child/Students/Personal users can print:

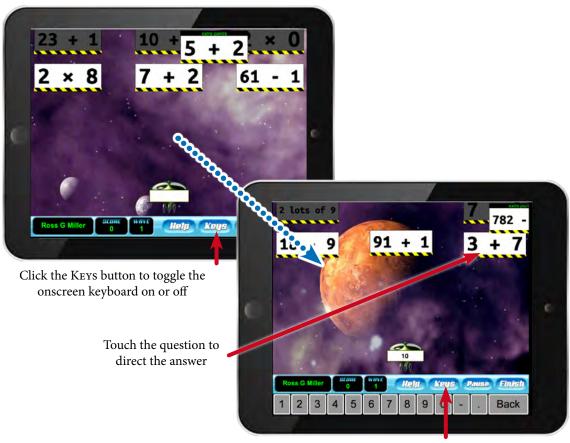
- Worksheets.
- Defender Level Awards.



# Mobile device input

### Toggle between mobile and computer input

*Maths Invaders Online* works on any mobile device without the need for an external keyboard. The Keys button allows users to toggle the onscreen numeric keyboard on and off. The onscreen numeric keyboard can also be used on computer screens with the mouse.



Click the Keys button to toggle the onscreen keyboard on or off

### Works on all devices

- 1. Swap easily between PCs and mobile devices.
- 2. Any device, anywhere, any time.