

powered by

Mathletics

Mathletics For Students

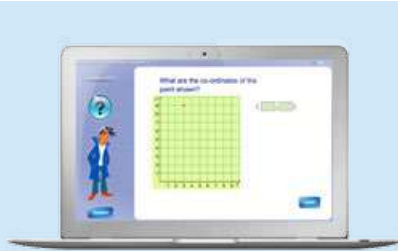
Welcome to the 4 million!

Mathletics is a global community of 4 million students in over 17,000 schools and homes around the world – and now you are a part of the community. This guide will help you get going. It all starts right here.



Welcome home.

Your student console is your own personal learning space, all the action takes place here. Create your avatar, set your theme, view your certificates. Make yourself at home!



Get learning.

Your Mathletics course contains hundreds of activities matched to your local curriculum. Answer questions, take tests, earn points... you'll be growing your knowledge before you know it!



Take the challenge.

The Live Mathletics arena is a fast-paced challenge where you can compete with other students from around the world in a 60 second race to the finishing line. Is your brain fast enough?!



Primary/Elementary Students
Page 1-9



Secondary/High School Students
Page 10-21

Got a tablet?

You can also sign in via the great Mathletics app (FREE to Mathletics subscribers). It is specifically designed for tablets and is available for both iPad and Android devices. For more information head to www.3plearning.com/mathletics/apps.



www.mathletics.com

Mathletics For Primary Students

Welcome to the Mathletics community! With Live Mathletics and curriculum activities, you have everything you need to improve your mathematical skills! Play against students from around the world as you earn points and certificates.

By using Mathletics consistently, you'll be amazed by your progress!

Getting Started

- 01 This is the Mathletics homepage. Simply click the **Sign In** button and enter your username & password.
- 02 Check out the **Hall of Fame**, showing the top students and classes in the world (and your local country) today.
- 03 The first time you sign in, you will be taken to the **FaceMaker** to create your avatar – time to get creative! You will earn credits to spend as you use Mathletics.

The image shows two screenshots from the Mathletics website. The top screenshot is the homepage, which features a navigation menu (Home, About, Case Studies, Schools, Purchase, Sign In) and a main content area with a 'Mathletics Hall of Fame' table. The bottom screenshot shows the 'FaceMaker' interface, which allows users to create an avatar by selecting various facial features and backgrounds.

Mathletics Hall of Fame Table:

| Rank | Name | School | Score |
|------|-------------|---------------------------------------------------|--------|
| 1 | Jack G | Cornelis State High School, QLD, Australia | 12,915 |
| 2 | Dham P | Sunnynook School, AUK, New Zealand | 11,970 |
| 3 | Kevin C | Sunnynook School, AUK, New Zealand | 5,890 |
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FaceMaker Interface:

The FaceMaker interface includes a 'Select Background' section with various background options, a 'Face' section with various facial features (eyes, nose, mouth, hair, etc.), and a 'Save and Exit' button. A 'Spend your credits' button is also visible, indicating that users can earn credits for using the platform.

Mathletics For Primary Students

Mathletics has two **Student Consoles** – the version you see is dependent on your year/grade level. Students in Primary year groups will receive one interface and students in Secondary/ High School year groups will receive another, with additional advanced features.

This guide is designed for students using the **Primary Years student console**.

The Student Console

- 01 All students can navigate around the different areas of Mathletics using the icons on the right of the screen.
- 02 All students can track their progress, achievements, awards & points earned on the left of the screen.
- 03 Select your own theme by clicking the **"My Profile / Settings"** icon. The backgrounds automatically change from day to night dependent on the time of day!



Mathletics For Primary Students



The **Curriculum Activities** are displayed in the central panel of your Student Console. The course displayed is linked to your year/grade level and is controlled by your teacher (or parent). This is the main area of Mathletics and will help you to improve your mathematics across all areas of the curriculum.

Mathletics Curriculum

- 01 The various topics contained within your course are listed in the middle of the screen. This course will have been assigned to you by your teacher or parent.
- 02 Click on one of the blue topic bars to view the individual activities it contains.
- 03 To look for an activity on a particular topic, simply type a keyword into the search bar at the top of the screen.



For each correct answer within the **Mathletics Curriculum** you will be awarded **10 points** – this doubles to **20 points** per correct answer in each end of topic **TEST**.



You can earn a maximum of **300 points** per activity, per week (**600 points** for a **TEST**) so be sure to work across a variety of activities to gain maximum points.

Mathletics For Primary Students



Mathletics Curriculum (continued)

- 04 Curriculum topics contain an **"Are You Ready?"** introduction activity (where applicable), several individual activities and finally an end of topic test.
- 05 Keep track of your progress towards completing all activities here as you collect your **Gold Bars**.
- 06 If you wish, you can click the **"Something Easier/Harder"** buttons to view a selection of activities on the same topic from the year below/above.



Achieve a score of 85% or more and you will be awarded a **Gold Bar**, this will be displayed next to the activity in the central area of the screen. Be sure to repeat activities until you strike gold!



Track your progress. Achieve a score under 50% and a **red bar** will appear on screen, this will change to a **blue bar** by increasing your score to between 50% and 85%. You can view your overall progress at the bottom-right of the screen.



Mathletics Curriculum (continued)

- 07 Each activity contains ten randomly generated questions (slightly more or less for an "Are You Ready?" or "TEST" activity.) Enter your answer and click **Submit** for the next question.
- 08 Each activity (excluding "Are You Ready?" or "TEST" activities) has a great interactive support area for extra help. Simply click the circular ? icon.
- 09 The **Curriculum Support Area** gives a step-by-step explanation of the activity you are working on. Where applicable, you can control the difficulty level of the examples using the buttons at the bottom of the screen.

Numbers - Expanded Notation

Question 1 of 10

Express in expanded notation

52,893

$50000 + 2000 + \square + \square + 3$

Submit

Statistics

Back

?

Character

This screenshot shows a Mathletics activity window. On the left, there is a sidebar with a question counter 'Question 1 of 10', a circular question mark icon, a cartoon character, and a 'Statistics' button. The main area displays the instruction 'Express in expanded notation' followed by the number '52,893'. Below this, a number line is shown with the equation $50000 + 2000 + \square + \square + 3$. The two empty boxes are green. A 'Submit' button is in the bottom right corner.

Numbers - Expanded Notation

Question 1 of 10

Express in expanded notation

77,384

Ten Thousands + Thousands + Hundreds + Tens + Ones

Think about the value of each digit.

Easier Medium Harder

Statistics

Back

Character

This screenshot shows a Mathletics activity window with a support area. The sidebar is similar to the previous screenshot but includes a green 'Back' button. The main area shows the instruction 'Express in expanded notation' followed by the number '77,384'. Below this, a number line is shown with the equation $\square + \square + \square + \square + \square$ and labels 'Ten Thousands', 'Thousands', 'Hundreds', 'Tens', and 'Ones' under each plus sign. A text box says 'Think about the value of each digit.' with left and right arrow buttons. At the bottom, there are three buttons: 'Easier', 'Medium', and 'Harder'. A 'Statistics' button is in the bottom left corner.

Mathletics For Primary Students



Mathletics Curriculum (continued)

- 10 After you have completed all ten questions, you will see your **Results Screen**. Click on any question to see your answers – or review any mistakes you may have made.
- 11 Your previous three attempts at this activity are shown here for you to track your progress. The horizontal red line indicates the 85% needed to achieve a **Gold Bar** for this activity.
- 12 If you have scored between 60%-85% inclusive, you can repeat the activity (with ten new questions) by clicking the **Try Again** button at the top of the screen. To return to the Student Console, click **Back**.



For younger students (K/R-3), audio is available within the **Mathletics Curriculum** and **Support** areas. Simply hover over question text and click to have the question read aloud.



The questions in the **Mathletics Curriculum** are randomly generated and different each time. It is recommend you repeat each activity until you achieve your **Gold Bar**.



Each time you beat your previous high score at an individual activity, you will be awarded **10 extra credits** to spend on your avatar in the **Mathlete Shop**.

Mathletics For Primary Students

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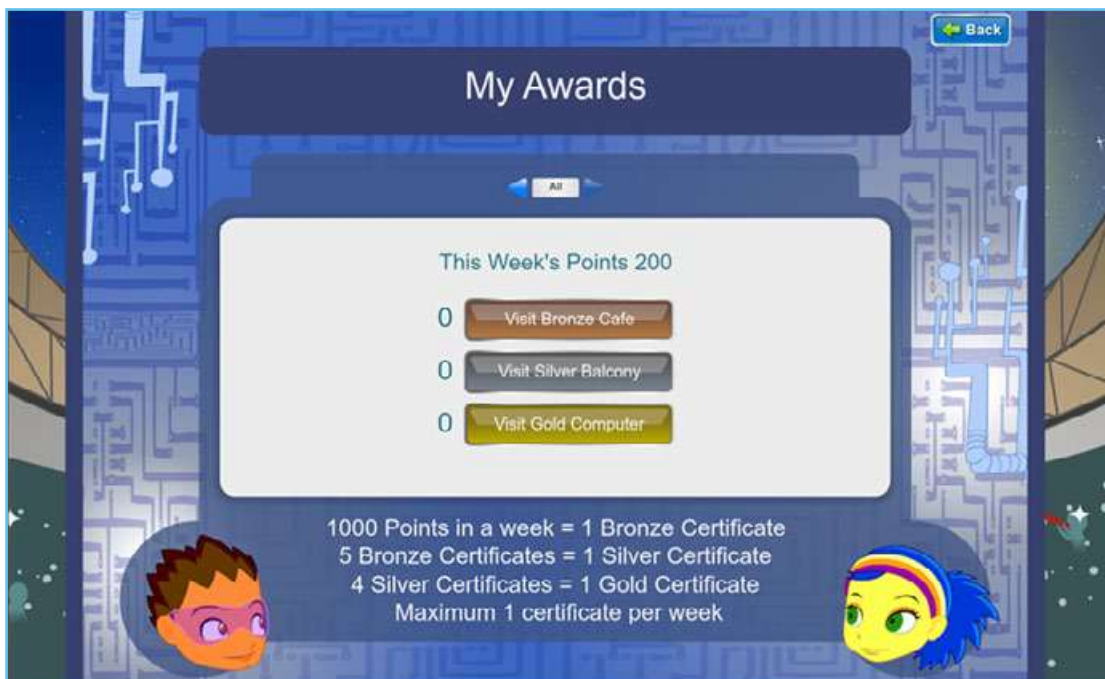


By using Mathletics regularly, you will be rewarded with points that can earn you weekly certificates. These are stored in your **My Awards** area within the Student Console.

Aim to earn 1,000 points per week to gain your certificate.

Certificates and Awards

- 01** Your **daily** and **weekly** points are displayed here. **Note – the Hall of Fame looks at your daily points.** Once you reach 1,000 points you will be awarded with a Bronze Certificate. Click the **My Awards** button to view your certificates.
- 02** Collect 5 bronze certificates and you will be awarded a silver certificate. Collect 4 silvers for a gold certificate. You can only earn one certificate per week, so be sure to use Mathletics regularly!
- 03** Earning a Bronze Certificate will also award you **100 extra credits** to spend in the Mathlete Shop. Silver certificates are worth **150 extra credits** and Gold certificates are worth **200 extra credits**.



Mathletics For Primary Students



The **Concept Search** is a fully interactive and illustrated encyclopedia of mathematical words and terms. It is a great way to explore new areas and discover explanations to concepts that you are working with in your classroom. To access the **Concept Search**, simply click on the icon in your Student Console.

The Concept Search

- 01 Use the **Search box**, or alphabet bar, to search for a particular word or phrase that you would like to explore.
- 02 To view a more (or less) complicated explanation select one of the four dogs, bottom-left of the screen.
- 03 For each mathematical term, there is a word-based explanation as well as an interactive animation to help you understand. Be sure to explore the examples given for best understanding!



The **Concept Search** is great if you come across a question or mathematical word that you do not understand and your teacher or parent is not available to help.



Along the bottom of the screen is a selection of **Related Words**. These are a variety of words and phrases that are similar to what you have been searching for. Great for extra exploring!

Mathletics For Primary Students

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Mathletics

Within the Student Console are a number of extra icons on the right-hand side of the screen that contain lots of really useful extra tools to help you improve your mathematics. Below is a summary of some of the main extra areas of Mathletics...

Extra Features



The **Problem Solving** games are a wide range of activities that present mathematical-based problems in a real-life context. In this area, you can use the range of number skills you have developed to solve a range of problems in an exciting game-based environment.



Rainforest Maths is a separate area within Mathletics. Created by Jenny Eather, these activities are designed for younger students and have a great rainforest theme. Get exploring!



Meet Max the Cat and his band in the **Times Tables Toons**. The guys have created 11 great music videos to help you master multiplication. From the Disco Strut to the Jungle Boogie, these songs are a great way to learn your times tables! The **Times Tables Toons** are also available as a phone and tablet app.



Spellodrome is the sister program to Mathletics, designed to help you improve your spelling through a range of fun activities and games.

NOTE – Spellodrome requires an additional subscription. If this icon is greyed-out in your Student Console, speak to your parent or teacher.



Mathletics For Secondary Students

Welcome to the Mathletics community! With Live Mathletics, activities and multimedia resources you have everything you need to improve your mathematical skills! Play against students from around the world as you earn points and certificates.

By using Mathletics consistently, you'll be amazed by your progress!

Getting Started

- 01 This is the Mathletics homepage. Simply click the **Sign In** button and enter your username & password.
- 02 Check out the **Hall of Fame**, showing the top students and classes in the world (and your local country) today.
- 03 The first time you sign in, you will be taken to the **FaceMaker** to create your avatar – time to get creative! You will earn credits to spend as you use Mathletics.

The image shows two screenshots from the Mathletics website. The top screenshot is the homepage, which includes a navigation menu (Home, About, Case Studies, Schools, Purchase, Sign In), a main banner with the text 'Australia's most used educational website!', and a 'Mathletics Hall of Fame' section. The Hall of Fame table lists top students and classes from various countries. The bottom screenshot shows the 'FaceMaker' interface, where users can create an avatar by selecting a background and facial features.

| Rank | Student Name | School | Score |
|------|--------------|---------------------------------------------------|--------|
| 1 | Jack G | Corinda State High School, QLD, Australia | 12,915 |
| 2 | Dham P | Sunnynook School, AUK, New Zealand | 11,970 |
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Mathletics For Secondary Students

Mathletics has two **Student Consoles** – the version you see is dependent on your year/grade level. Students in Primary year groups will receive one interface and students in Secondary/High School year groups will receive another, with additional advanced features.

This guide is designed for students using the Secondary/High School student console.

The Student Console

- 01 All students can navigate around the different areas of Mathletics using the icons on the right of the screen.
- 02 All students can track their progress, achievements, awards & points earned on the left of the screen.
- 03 Select your own theme by clicking the **"My Profile / Settings"** icon. The backgrounds automatically change from day to night dependent on the time of day!



Mathletics For Secondary Students



Activities

My Study

- 01 The **My Study** area is the central point for all of your course content.
- 02 This content is automatically set, dependent on your year/grade level. (Note: this default course can be updated by the teacher/parent).
- 03 Four different types of content are available – Targeted individual **ACTIVITIES** (banks of questions, with pre and post assessment), digital **eBOOKS**, supportive **INTERACTIVE** widgets and a bank of **VIDEO** support tutorials.
- 04 **Looking for specific content?** Use the **SEARCH** bar to enter a keyword – for example "fractions". All relevant content, across all media types, will be displayed.

The screenshot displays the 'My Study' dashboard. On the left, there's a 'My Progress' section with four colored circles (yellow, grey, red, blue) and a 'My Points' section with 'today', 'weekly', and 'next award' indicators. The main area is titled 'My Study' and has a search bar. Below the search bar are four tabs: 'Activities', 'eBooks', 'Interactives', and 'Videos'. The 'Activities' tab is active, showing a list of topics: 'Number', 'Patterns & Algebra', 'Measurement and Data', 'Calculus: Differentiation', 'Calculus: Integration', 'Calculus: Applications', and 'Videos'. The 'Videos' tab shows a list of video titles: 'Are You Ready?', 'Possible Outcomes', 'Counting Principle', 'Counting Techniques 1', 'Counting Techniques 2', 'Probability without Replacement', 'Probability with Replacement', 'Find the Probability', 'Probability Tables', 'Two-way Table Probability', and 'Dice and Coins'. On the right side, there's a 'My Study' section with icons for 'Live Mathematics', 'Formulae', 'Calculator', and 'More'.



Mathletics Curriculum Activities

- 01 Each activity contains ten randomly generated questions (slightly more or less for an "Are You Ready?" or "TEST" activity.) Enter your answer and click **Submit** for the next question.
- 02 Each activity (excluding "Are You Ready?" or "TEST" activities) has a great interactive support area for extra help. Simply click the circular ? icon.
- 03 The **Curriculum Support Area** gives a step-by-step explanation of the activity you are working on. Where applicable, you can control the difficulty level of the examples using the buttons at the bottom of the screen.

Geometry / Angles in a Revolution

Question 1 of 10

Calculate the value of x .

120° 115°
 x

$x =$ $^\circ$

Submit

Geometry / Angles in a Revolution

Question 1 of 10

Back

Calculate the value of x .

105° 116°
 x

Rule
Angles forming a revolution add to 360°

Write an algebraic equation.

Easier Medium Harder

Mathletics For Secondary Students



Activities

Mathletics Curriculum (continued)

- 04 After you have completed all ten questions, you will see your **Results Screen**. Click on any question to see your answers – or review any mistakes you may have made.
- 05 Your previous three attempts at this activity are shown here for you to track your progress. The red line indicates the 85% needed to achieve a **Gold Medal** for this activity.
- 06 If you have scored between 60%-85% inclusive, you can repeat the activity (with ten new questions) by clicking the **Try Again** button at the top of the screen. To return to the Student Console, click **Back**.



The questions in the Mathletics Curriculum are randomly generated and different each time. It is recommend you repeat each activity until you achieve your Gold Medal.



Each time you beat your previous high score at an individual activity, you will be awarded 10 extra credits to spend on your avatar in the Mathlete Shop.

Mathletics For Secondary Students



In addition to the main Mathletics curriculum of activities, you also have access to a huge library of extra resources across a range of media. One of these is the library of **eBooks** – a series of great digital workbooks that are fully matched to the online Mathletics content.

Mathletics eBooks

- 01 To search for the content you want, simply scroll through the workbooks or type a keyword into the **Search** box.
- 02 Each **eBook** is split into chapters relating to specific strands of mathematics within that topic. You can choose to view just the individual pages of the eBook you need.
- 03 Many eBooks also contain some great interactive animations and videos related to the concept. For **more information on the Interactives and Videos**, see the next pages...



Each **eBook** can be downloaded and saved as a PDF file for future use. You can print individual pages, or an entire workbook. Great for extra study in your target areas.



Check your understanding by following up on an activity with an eBook. This is an excellent way to expand your study in a particular subject area.

Mathletics For Secondary Students



In addition to the main Mathletics curriculum of activities, you also have access to a huge library of extra resources across a range of media. One of these is the library of **Interactives** – a series of great hands-on interactive explanations that are designed to give you a deeper understanding of mathematical concepts.

Mathletics Interactives

- 01 Use the topics to search for the content you need, or type a keyword into the **Search** box.
- 02 The **Interactives** use technology called Geogebra, this brings the static illustrations of the Mathletics eBooks to life. Select the activity you want and click the green **Interact** button when the page has loaded.



Within each Interactive, you can move and interact with any of the sliders and buttons – this will change the illustration on screen. It's like having your own personal set of textbook examples!



Improve your understanding by following up on an activity with an Interactive. You'll be amazed how easy it is to understand a new concept once you have got hands-on with an interactive example.

Mathletics For Secondary Students



In addition to the main Mathletics curriculum of activities, you also have access to a huge library of extra resources across a range of media. One of these is the library of **Videos** – a series of great visual explanations of mathematical concepts, using the Interactives as teaching examples.

Mathletics Videos

- 01 Use the topics to search for the content you need, or type a keyword into the **Search** box.
- 02 The **Videos** available in each topic area are listed in the grey panel. Each video is a few minutes long and will focus on a specific area of mathematics.



The videos, along with the Mathletics Support area within the curriculum, are a great way to understand a new topic if your teacher or parent is not available.



Improve your understanding by following up a curriculum activity with a video. You'll be amazed how easy it is to understand a new concept!

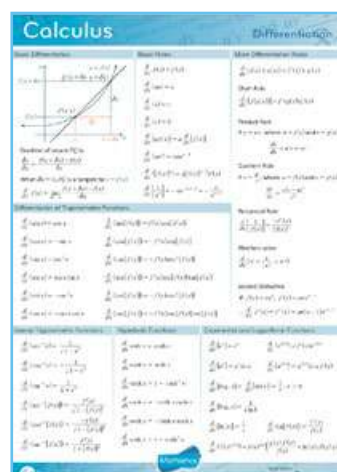
Mathletics For Secondary Students



As an additional support material for your studies, a range of PDF factsheets are available – right from within your student console. These cover various laws and formulae that a key to major strands of mathematics.

Mathletics Laws and Formulae

- 01 All available factsheets can be accessed via the Formulae button on the right of your student console.
- 02 Browse to your required factsheet and click to open. You can print the PDF or save it to your computer.
- 03 Be sure to check back, new factsheets are made available regularly.



Mathletics For Secondary Students

By using Mathletics regularly, you will be rewarded with points that can earn you weekly certificates. These are stored in your **My Awards** area within the Student Console.

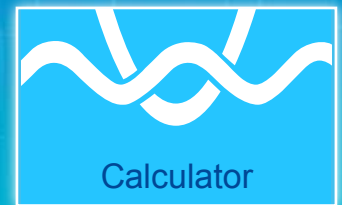
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Certificates and Awards

- 01 Earning a Bronze Certificate will also award you **100 extra credits** to spend in the Mathlete Shop. Silver certificates are worth **150 extra credits** and Gold certificates are worth **200 extra credits**.
- 02 Your weekly points are displayed bottom - left of the screen. Once you reach 1,000 points you will be awarded with a Bronze Certificate. Click the **My Awards** button to view your certificates.
- 03 Collect 5 bronze certificates and you will be awarded a silver certificate. Collect 4 silvers for a gold certificate. You can only earn one certificate per week, so be sure to use Mathletics regularly!



Mathletics For Secondary Students



We have partnered with Desmos to bring you a groundbreaking new interactive graphing calculator right into the secondary student console. For more information, [watch this tutorial](#).

Mathletics Calculator

01 Sliders



Dynamically manipulate your expressions by adding a slider! Type a parameter in place of a number in your expression and click the button to add a slider. Drag the slider to change the value of the parameter or press the play button and we will slide it for you.

02 Tables of Data

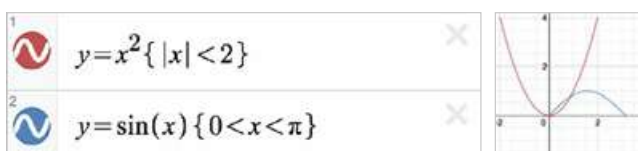
To create a table of data, click the "Add Item" button and select table. You can convert an existing expression into a table in "Edit Mode" by clicking the "Convert to Table" icon.



| x | sin x |
|----|---------|
| -2 | -0.9093 |
| -1 | -0.8415 |
| 0 | 0 |
| 1 | 0.8415 |
| 2 | 0.9093 |

03 Restrictions

You can restrict the domain or range of your expressions by adding the restriction onto the end of the expression:



04 Inequalities

Use $<$ and $>$ for strict inequalities (dashed line) and \leq or \geq for non-strict inequalities (solid line). You can even shade between two curves!



Mathletics For Secondary Students



More

Within the Student Console are a number of extra icons on the right-hand side of the screen that contain lots of really useful extra tools to help you improve your mathematics – just click the “**MORE**” icon. Below is a summary of some of the main extra areas of Mathletics...

Extra Features



Problem Solving

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