



Highland Numeracy and Mathematics

***Structured Learning
At Home***

Highland Numeracy and Mathematics: *Structured Learning At Home*



Structured Learning At Home

For more ideas visit [The Highland Numeracy Blog](#)

Structured Learning At Home



Quick Links

Click on the text to be taken to the relevant section of the document or just browse through the document:

We've selected a few websites that have structured learning at a range of levels

Khan Academy

→ Overview

→ Grade Levels

→ Early

→ First

→ Second

→ Third/Fourth

Maths 180

→ National 5

→ Higher

Mr Graham Maths

→ National 5

Larbert High

→ National 5

→ Higher

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Khan Academy: Overview

- Khan Academy is a free website with lots of structured maths activities including:
 - ◆ Video Tutorials
 - ◆ Follow Up Questions
 - ◆ Quizzes.
- Click on the links to be taken to the websites to sign up if your child doesn't already have an account.
 - ◆ [Khan Academy](#) can be used on a web browser or as an app.
 - ◆ [Khan Academy Kids](#) can only be downloaded as an app on some devices (may be more suitable for P1/2)
- If you need help getting set up, read the following:

Check with your child if they already have a login. Their teacher may have set them up with one at school as these can be linked to pupils' Google Classroom accounts. If they do not, you can create an account for them by following the instructions on the [Parent Quick Start Guide](#).



Khan Academy: Grade Levels

- Grade Comparison to Scotland.
- [This document](#) has been used to get an approximation of which Grades correspond to the year groups in Scotland. Please remember this is an approximation and as stated before, the timing of when some content is introduced will vary between the two countries.

IMPORTANT NOTICE: Khan Academy is based on the US Grade System. Please be aware that while in general we feel the content is very useful, there are some differences with the timing of when content is introduced and the way that some content is taught.

Grade	Level	Primary
→ Kindergarten	Early/First	P1 + P2
→ First	First	P3
→ Second		P4
→ Third		P5
→ Fourth	Second	P6
→ Fifth		P7
→ Sixth		S1
→ Seventh	Third and Fourth	S2
→ Eighth		S3

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Khan Academy: Early

- For pupils working at Early Level (generally Nursery and P1), you may prefer to engage in maths activities through stories and play rather than these more structured activities. You may also find that [Khan Academy Kids](#) is more appropriate for your child.
- Content for P1 on Khan Academy can be found in the K-2nd Grade Section but this spans a huge range - all the way up to P4.
- If you wish to use these activities there is some guidance here so you can gauge what might be appropriate.
- Counting: By the end of P1, many children will be able to count to 30 and back from 20 (and lots will be able to go beyond this). Children generally have difficulty with 'teen' numbers and these may need reinforcing.
You will find that pupils make more sense of counting by actually counting physical objects in the house for a purpose rather than on the computer.
- Addition and Subtraction: By the end of P1, some children will be able to add and subtract within 20. They will likely still need physical objects in front of them. They may need to count all the way from one, they may start counting on and back (but don't rush them to this).

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Khan Academy: First

- Content for P2-P4 on Khan Academy can be found in the K-2nd Grade Section but this spans a huge range - all the way up to P4.
- You could use the 'Quiz' Option on Khan Academy - each section has a quiz. This will give you and your child an idea of what they can do confidently and what they may need to learn/revisit.
- After your child takes the quiz Khan Academy then suggests the content that would be useful for them to work on. These are marked with a yellow star. Other content can still be practised to keep it strong.

Quiz 1

Level up on the above skills and collect up to 400 Mastery points

[Start quiz](#)

Skip-counting

Learn



Skip-counting by 5s



Counting by 10s



Khan Academy: Second

- Content for P5-P7 on Khan Academy can be found in the 3rd Grade, 4th Grade and 5th Grade Sections.
- You could use the 'Quiz' Option on Khan Academy - each section has a quiz. This will give you and your child an idea of what they can do confidently and what they may need to learn/revisit.
- After your child takes the quiz Khan Academy then suggests the content that would be useful for them to work on. These are marked with a yellow star. Other content can still be practised to keep it strong.

***NOTE: When multiplying whole numbers by 10 e.g. 28×10 , Khan Academy does refer to the Pattern of adding a zero to the 28. We ACTIVELY DISCOURAGE schools from teaching this to children as a way to multiply by 10, 100 etc. although acknowledge that it is fine to spot the pattern and to discuss it. It often becomes an issue and leads to lack of understanding and incorrect answers when children start to multiply decimals e.g. when solving $7.2 \times 10\dots$ the answer IS NOT 7.20 but many children write this as they have previously been taught a rule about adding a zero!**

Quiz 1

Level up on the above skills and collect up to 400 Mastery points

[Start quiz](#)

Skip-counting

Learn

 Skip-counting by 5s

 Counting by 10s



Khan Academy: Third/Fourth

- Content for S1-S3 on Khan Academy can be found in the 6th Grade, 7th Grade and 8th Grade Sections.
- You could use the 'Quiz' Option on Khan Academy - each section has a quiz. This will give you and your child an idea of what they can do confidently and what they may need to learn/revisit.
- After your child takes the quiz Khan Academy then suggests the content that would be useful for them to work on. These are marked with a yellow star. Other content can still be practised to keep it strong.

Recommended lessons

We recommend the following lesson based on your test performance:

[Square roots & cube roots](#)

***NOTE: There are some differences in terms of exactly when the content is taught however, By using the quiz function, you will be able to get an idea of things that your child finds easier/harder and be able to let this guide the learning.**

Square roots & cube roots

Learn

- ▶ Intro to square roots
- ▶ Square roots of perfect squares
- ▶ Intro to cube roots
- ▶ Worked example: Cube root of a negative number
- ▶ Square root of decimal
- ▶ Dimensions of a cube from its volume
- ▶ Square roots review
- ▶ Cube roots review



Maths 180: National 5

- Maths 180 has a series of videos to support pupils with their understanding of the different areas at National 5. Each topic has a series of questions for the pupils to solve. They can then check their understanding by watching the video showing the question being solved.
- Go to: www.maths180.com and click on the N5 Videos tab and select a topic from the drop down menu.
- There are also N5 practice papers available.



Maths 180: Higher

- Maths 180 has a series of videos to support pupils with their understanding of the different areas at Higher. Each topic has a series of questions for the pupils to solve and then check their understanding by watching the video showing the question being solved.
- Go to: www.maths180.com and click on the Higher Videos tab and select a topic from the drop down menu.

WWW.MATHS180.COM

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Mr Graham Maths: National 5

- Mr Graham Maths has a series of videos to support pupils with their understanding of the different areas at National 5. Each topic has a series of explanatory videos for pupils to watch. Questions are incorporated throughout each video so pupils can check their understanding as they go.
- Go to: <https://mrgrahammaths.wordpress.com/resources/national-5/>. Here you can browse by topic and select the videos you want to explore further.
- There is further information on National 5 available here:
<https://mrgrahammaths.wordpress.com/course-information/national-5/>

Video Tutorials

Advice After School Assessment Beings Circle

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Larbert High: National 5

- Larbert High have a series of instructional videos to support pupil understanding in the different areas at National 5.

Click here to go to the site:

https://www.larberthigh.com/departments/mathematics_and_computing/mathematics/flipped_learning.html

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Larbert High: Higher

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