



wilkieway.co.nz

The Pluses and Minuses of Home Learning

I was not surprised to read in the Herald yesterday that a major recent analysis by the Ministry of Education found that overall children did not fall behind in reading or maths during the lockdown last year.

A finding that holds true across all deciles and ethnic groups.

Experts suspect that is because of the effort schools, teachers and parents have put in over the last year.

While writing suffered a bit reading and maths didn't - is there something about these areas of learning that students make progress despite not having as much direct instruction?



In my opinion both reading and mathematics are tools for living - as we live our lives we make use of what we already know and learn new ideas just in time - often through trial and error. Jo Boaler says - making mistakes grows our brains.

We already know being read to expands a student's vocabulary and understanding of how literature works and maybe families had more time to read together. Certainly for our beginning readers this would have been a big bonus. Maybe older students read more themselves for enjoyment and to escape the real world. (I know I certainly did). Perhaps they observed adults reading more.

When it comes to mathematics - we have been swamped with numbers. Just listening to the daily 1pm reports - everything we are bombarded with is in the form of numbers. Making sense of the numbers you really do have to look closely at the words that go with the numbers to understand what you are actually being told.

25% of the population have had both vaccinations 48% of the population have had 1 or 2 vaccinations

You need to understand the 25% is included in the 48% when at first glance you might be tempted to add the percentages together and think over 70% vaccinated.

Maybe seeing mathematics as a tool for communicating information and understanding that it is mathematical modelling that is determining our response to the pandemic has made mathematics a much more real subject.



Personally I believe students who are actively engaged in practical tasks are building solid mathematical understanding foundations. Tasks that involve measuring - by direct comparison or by using a measurement instrument (ruler, scales, cup measures) naturally create situations that involve fractions.



Tasks that involve building, movement and construction provide strong geometric foundations.

On line gaming can provide students with the opportunity to strategise, predict and use logic and reasoning.

Often during school time it is not possible for students to spend an extended period of time creating their own learning. (The philosophy behind play based - acknowledges the importance of this type of learning)



Students also need to maintain and practice number facts - this is where schools can provide appropriate games, e-learning sites, practice worksheets etc. Remember different students learn in different ways. Some love using on line systems like study ladder or mathletics, some prefer to use paper and pencil. There has never been a one size fits all and it is important to provide for a variety of options. Especially as in many families there is not access to multiple devices.

For optimum learning opportunity students need to be guided in experiences from all areas of the mathematics curriculum.

What about the minuses?

There seems to be a small cohort of students who have failed to make progress during lockdown and unless their full circumstances are known the reasons can only be speculative.

We have children who did not engage with online learning with the school who have made progress and others who have not made progress.

We have children who engaged with online learning but still did not make progress.

I think this comes back to my earlier statement that one size does not fit all. Learning involves an awful lot more than engaging (or not) in specific activities.

Learning is one of the most complex things to try and measure. Learning is both personal and collaborative. Some people are internally motivated and study for the sake of study or for a personal interest in a particular field. (I remember my daughter in year 6 became interested in Aztecs and delved so deeply into studying this area she amazed a civilisations specialist university lecturer we met on holiday, with her knowledge - he stated she knew more than most of his students.)

Most students are externally motivated and need challenge with support to effect successful learning. Distance learning at tertiary level has only a 50% completion rate while on site learning has a much higher completion rate.

Keeping in touch with your students to provide support and motivation is of greater value than trying to conduct a group teaching session as you would do in the classroom. Any "teaching" should be in the form of support with just in time learning. For example to be able to complete a particular challenge set by you or for something that has cropped up in personal learning and the student asks for support.

At primary school we are not trying to cover particular content to pass an exam. As the curriculum states:

A student's ultimate learning success is of greater importance than covering a particular achievement objective.





Level 3a workbooks - to support Maths Aotearoa due for publication October 2021

A new section under student resources Challenges Each of these challenges provide students with the need to use their knowledge. If there is possible new learning an example is given.- Designed as possible home learning activities.

Answers have been added to most of the folders under student resources.

| ite the other 6 numbers in the bottom row of the grid in ascending order. | n descendr Exam | ig ord ple: | er. | | | |
|---|--------------------|----------------|--------|-----|-------|------|
| ite the difference between each pair of numbers in the six columns. | 11 | 8 | 5 | 4 | 2 | 1 |
| | 3 | 6 | 7 | 9 | 10 | 12 |
| | 8 | 2 | 2 | 5 | 8 | 11 |
| I together this string of numbers. Explore what hoppens if you choos | e different i | numbe | irs in | the | top (| row? |



September Featured Resource

- You want consistency and continuity across the school.;
- You want to know what to teach and when:
- You want to build your knowledge of the learning progressions across the curriculum strands;
- You want interesting and challenging math activities for your students.

Then Maths Aotearoa is for you (digital versions available)



Level 1a Teacher Book & 100 Activity Cards + 12 printable workbooks Level 1b Teacher Book & 100 Activity Cards + 13 printable workbooks Level 2a Teacher Book & Student Textbook + 13 printable workbooks Level 2b Teacher Book & Student Textbook + 13 printable workbooks Teacher Books & Activity Cards & Textbooks available from edify.co.nz Printable workbooks available from Members Area of wilkieway.co.nz 3 ©Copyright N C Wilkinsons Ltd 2021 All rights reserved.

New section on NZmaths.co.nz

Learning at home: information for teachers

1. Weekly plans using online resources:

Each of these plans has five sessions. (5 weeks for each year group). Each session has activities using the resources on nzmaths that should take about 45 minutes. Feel free to pick and choose ideas from these plans to find activities for your child.

Go to the school year appropriate to the child. Click on a button to view each week plan.

If the plan is too easy or too hard, move up or down a school year to find one that best suits.

2. Weekly plans: Using offline resources (at present just one activity sheet per year group) These plans are designed to be printed and then completed offline over several days. Notes for whānau are included.

The activities include mathematical problems to solve, projects to work on, and number facts to practice. Some of the activities may require support from parents or whānau.

Look at the plan for the year group and then consider the individual. There seems to be a huge jump between year 6 and year 7 especially on the number facts practice - year 6 practicing multiplication tables, year 7 combining knowledge of multiplication tables, place value including decimal place value.

I am also dubious about the heading "Quick questions" which is once again reinforcing the idea that speed rather than thinking plays a major part in mathematics. I would rehead the section "Questions to think about."

