



Let's play some maths...

- Year 4 at Radford College describe how they have taken inquiry into the maths program and the impact this has had.

Janine



Why we do inquiry in maths – a bit of a broad rationale



We do inquiry in other subjects; we can do it in maths



Kids are engaged when they learn this way



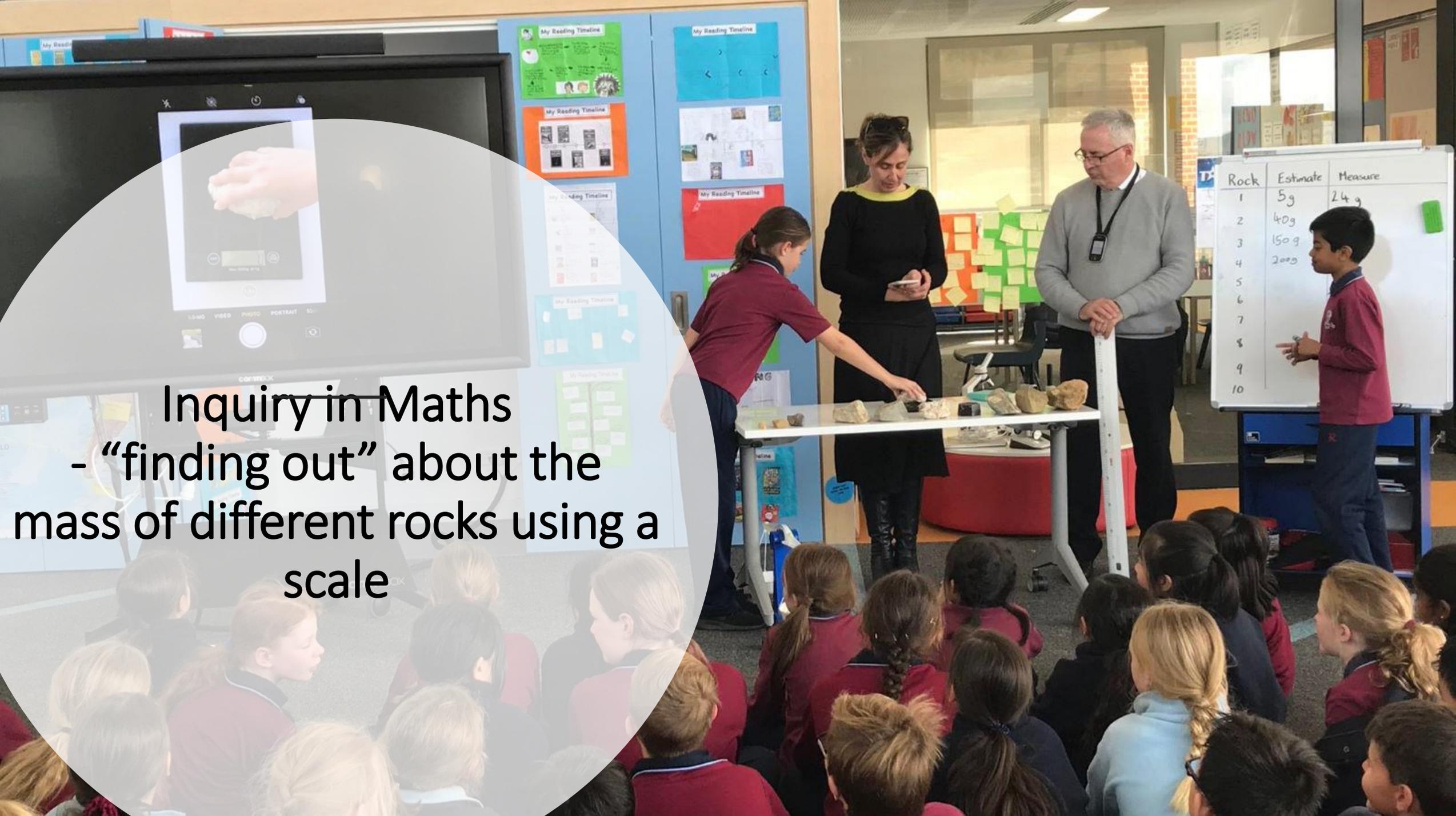
It is good pedagogy



We do a “topic” or theme over 1 or 2 weeks – based on AC requirements and our scope and sequence overview for the term



Extension is not jumping ahead to do next years’ work – it’s digging deeper into what we are doing and finding new strategies, new solutions, new connections



Inquiry in Maths
- “finding out” about the mass of different rocks using a scale

Rock	Estimate	Measure
1	5g	24g
2	40g	
3	150g	
4	200g	
5		
6		
7		
8		
9		
10		

Kathy

We start with a provocation

Show what it looks like – kilo of feathers/kilo of nails; Black Velvet Cake Shop; How many kids can fit into one classroom?

Rather than lead up to the fun bit, this is where we start

Brain dumps – put down on paper what we already know – it might come in handy when we try to solve our big problem



Exploring the square metre



How many students can we fit in one classroom?



What weighs more – a kg of nails or a kg of feathers?

Tegan

We introduce skills and operations when we need them

Once we are immersed in the challenge of the provocation, we realise we need some skills to crack it open

Just-in-time teaching – focus on the skills

Traditionally, skills are the starting point of learning maths. Our intention is to put them later, once we have established connection and context for learning them.

What did the kids say about...learning

- My favourite bit was doing fractions and area. I like the method where you count the blocks down and across the classroom and multiply it across. I like finding the patterns in fractions and how they are like the multiplication patterns. – Sathvik



What did the kids say about...learning

- We did learn some new angles like right angles and obtuse angles. It was fun working out the problems in the classroom and measuring. Our first ever maths lesson was about Vitruvius man – that was fun. The best thing we did was find out how many people could fit in the classroom. It was interesting – Aariz



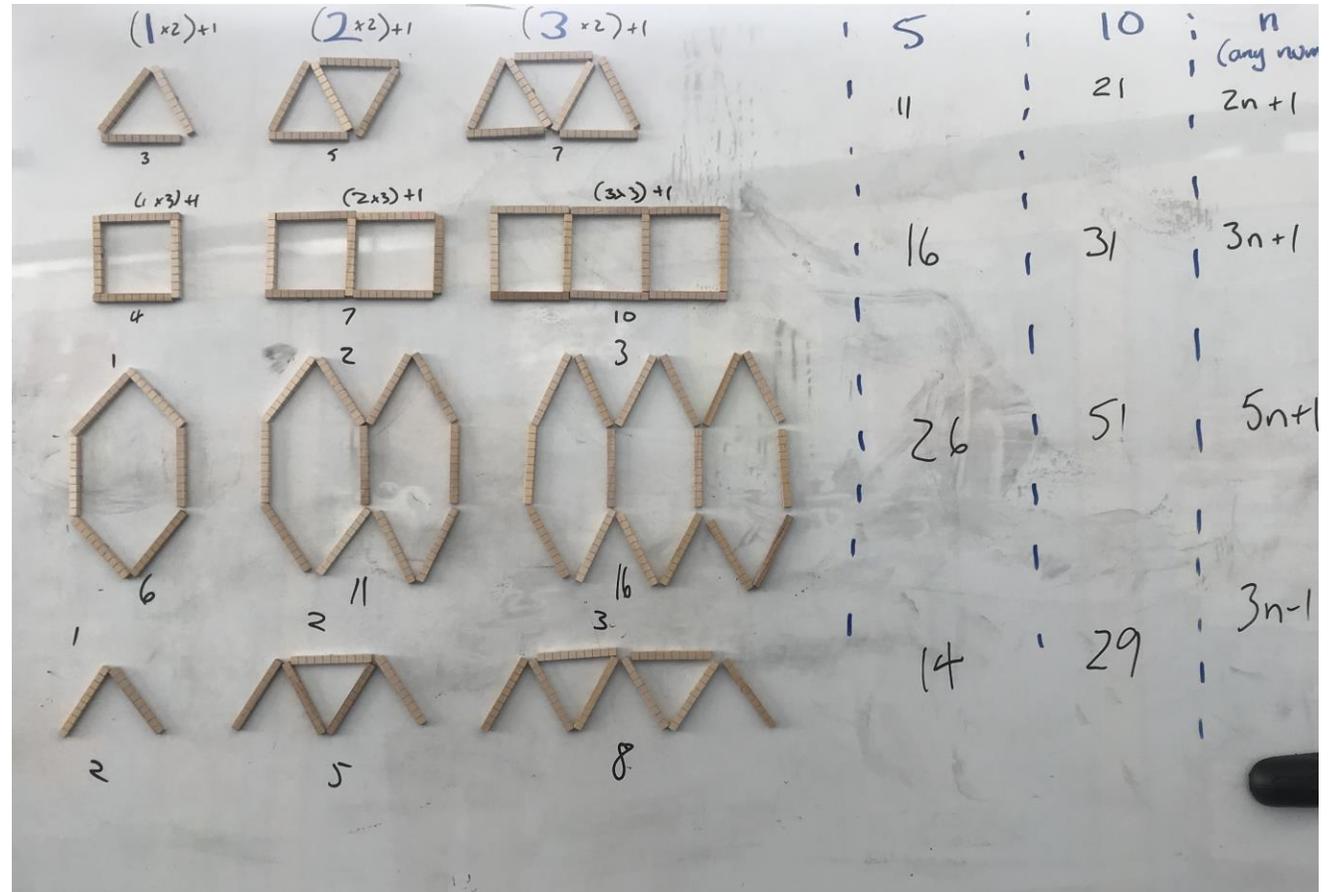
What did the kids say about...learning

- We did it in fun ways by doing patterns and things. I remember making really big 1 000 000 squares out of tiny grid paper. I like doing the fractions we are doing right now. – Carys



What did the kids say about...learning

- I liked the maths but I think we should do more number problems and less playing with cubes. I liked the talking in a circle about things and we should do more of that in maths. - Yash



Nathan



Assessment



Celebration of everything we know about...



Regular, short, snappy – focused on the skills



Pull together the group to discuss where we went with the provocation – did we reach a new understanding?

What did the kids say about...assessment

- I liked maths this year because it was different from last year. At the end of everything we learnt we had a celebration not a test. – Daniel
- The tests are really easy so they are fun. It was a lot better than maths last year when it was not very fun. – Laura

Year 4 Celebration of What I know about – Data and Graphs
Name _____

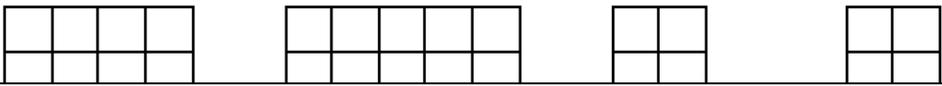
A movie theatre collected data on the number of kids and adults that attended a recent movie screening. A kid's ticket is all ages up to 15 and

Ages of ticket buyers										
40	12	19	42	36	25	9	12	12	40	14

Year 4 Celebration of What I Know About – Angles
Name _____
Classify each angle as r

Year 4 Celebration of what I know about – Area
Name _____

1. Find the area of each of these rectangles. Assume that each square is 1cm^2 :



Bruce

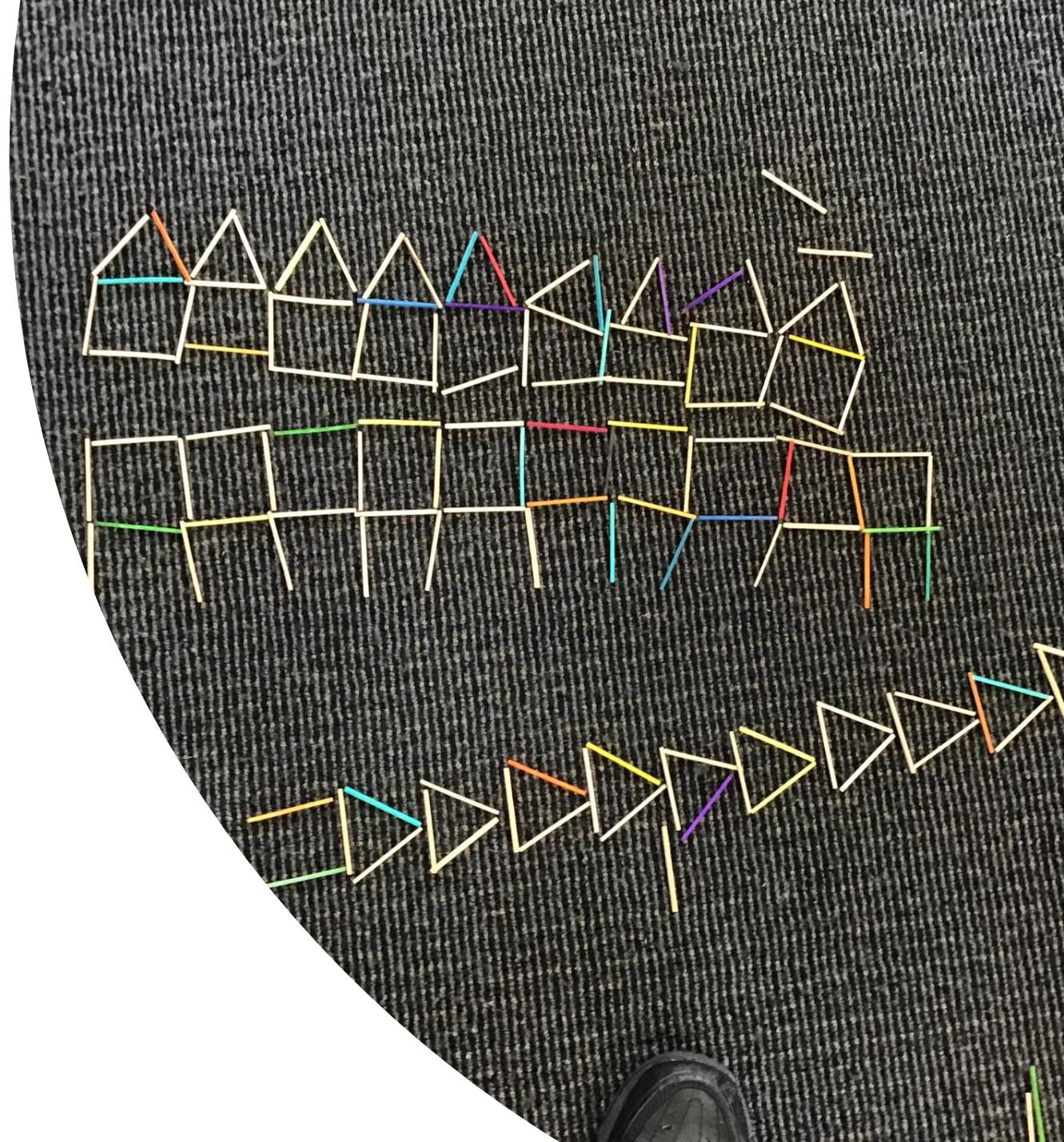
Student engagement

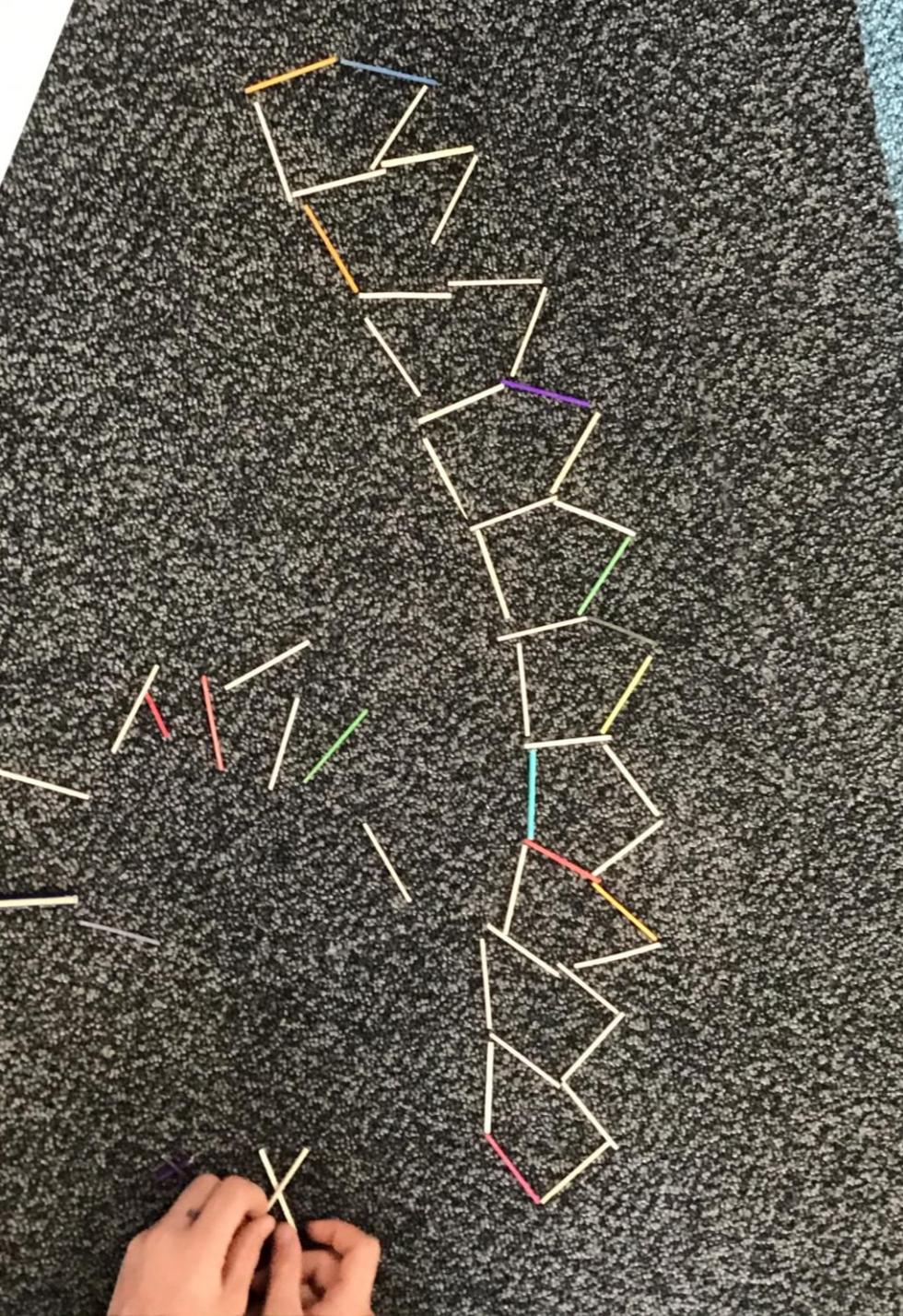
Get some comments from students or photos of them working in maths?

DO they enjoy/engage more?
What about the ones who just don't like maths? – kids cheer

What did the kids say about...engagement

- I like that you can take boring maths and put it into cool concepts. I loved the idea of Black Velvet cake – that was a good idea. Instead of just giving us a test, we get some sort of scene or background to a story. – Issy
- It's fun. We get to be really inventive. All the classes get to interact and we get to work in groups with people from all the classes. – Ava
- I like it because it is very interesting. It has a bit more pizzazz than other types of maths. I liked the bit with multiplying with numbers that end with zeros. I also liked the timeline of the history of the world. - Claire



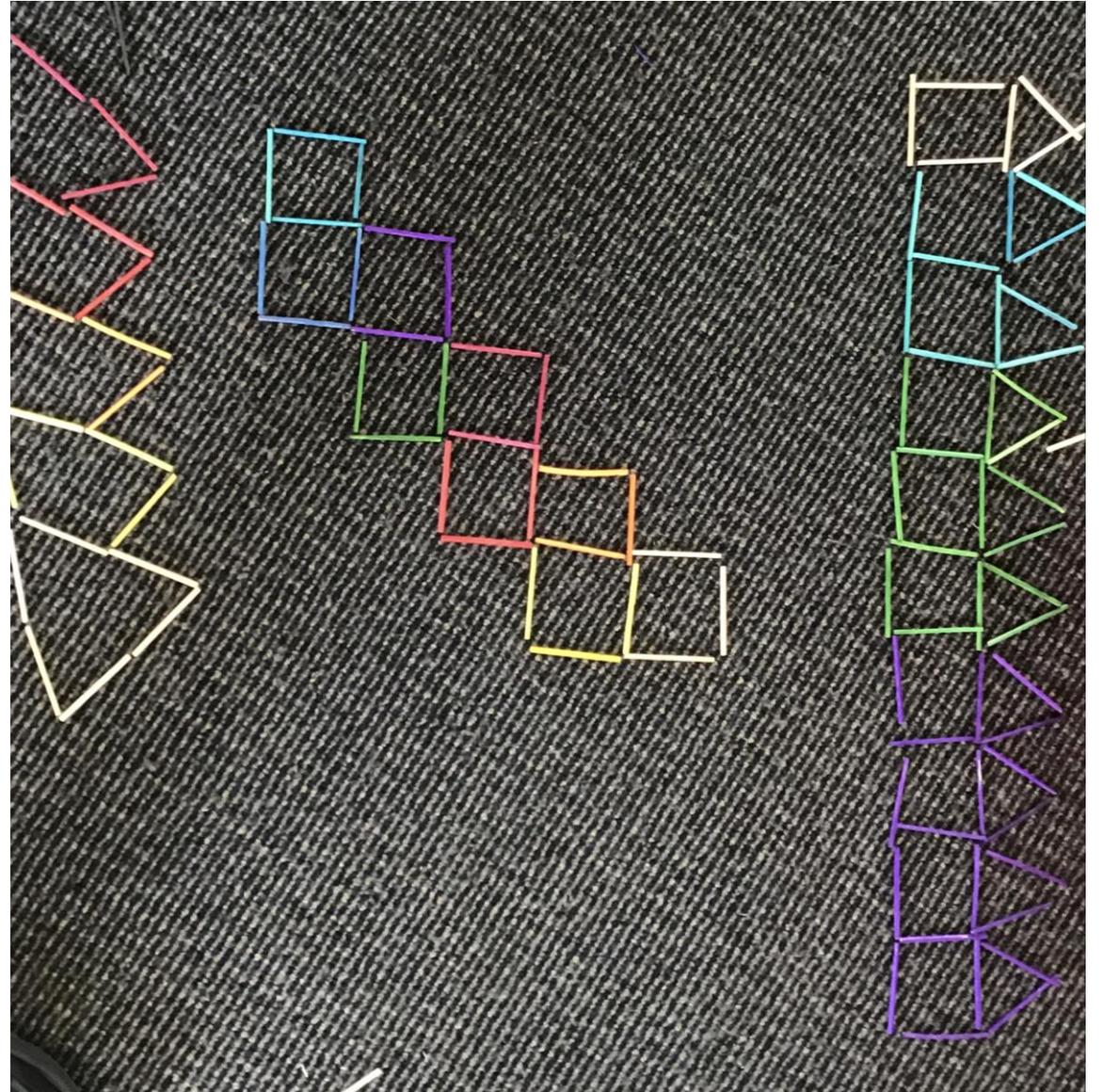


What did the kids say about...engagement

- I liked maths this year because it was different from last year. At the end of everything we learnt we had a celebration not a test. I think the activities were fun because we had to really think about what we were doing. Like when we used unifix cubes to measure the classroom. I also learnt lots of new strategies like finding the area of a rectangle. – Daniel
- We did lots of fun activities. The activity with the square metre was good. We did lots of measuring weights and most of the time they were not the same. We did most of the stuff as accurate as we could. Our answers were different from other people in different classes and we had to work out why. - Charles

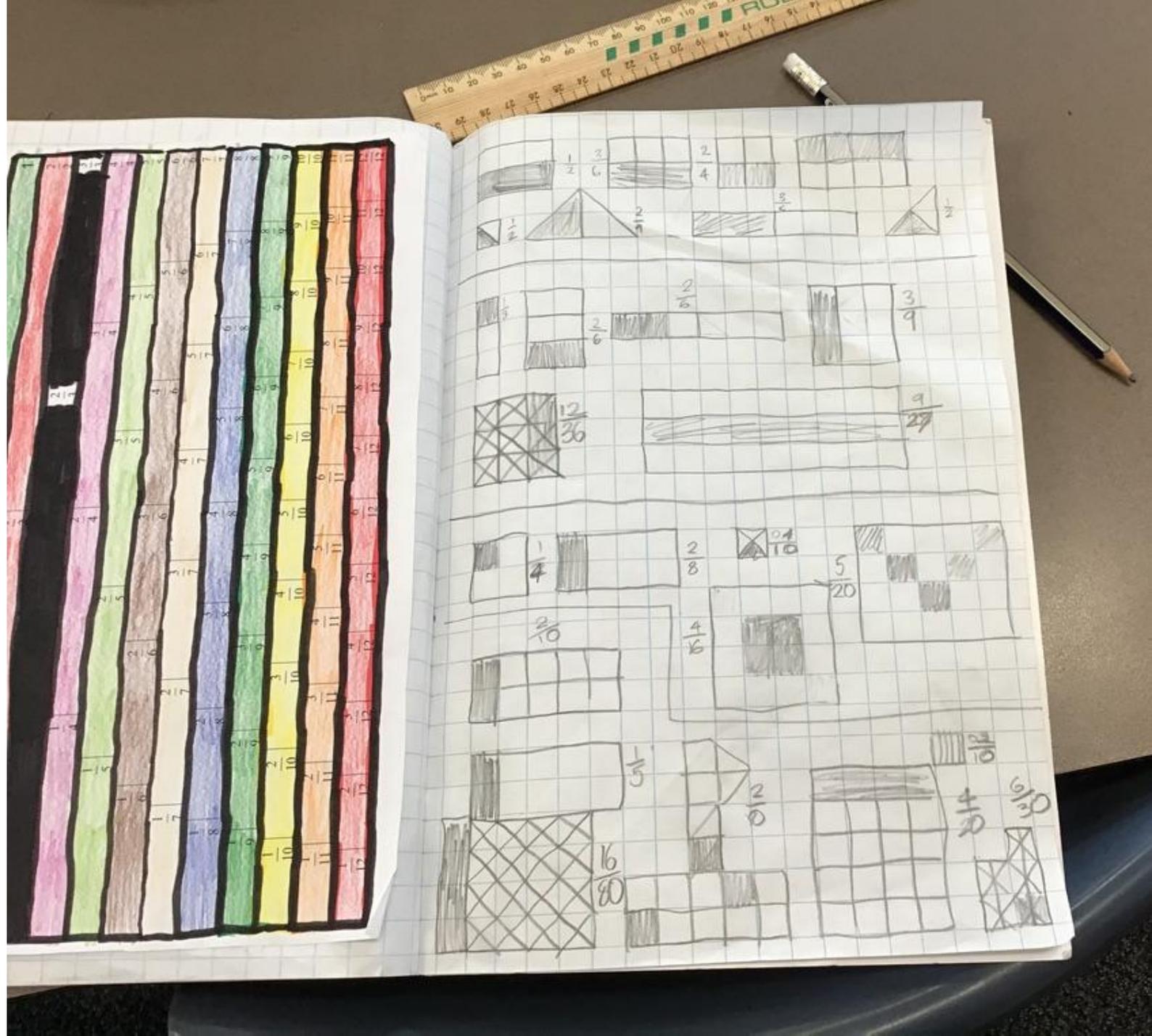
What did the kids say about...engagement

- I love maths in general and every topic. I liked having groups to do activities. The Black Velvet cake shop was great because I like cakes and it was about division. I also liked the probability games we played. – Peter
- I liked how it was really fun. The activities were really fun to try. They were 75% maths and 25% fun. – Jeevaa



What did the kids say about...engagement

- I liked how we had to count the top and sides of the classroom in cubes and see how many there were. I liked making fractions on the rope. The codes were interesting but really hard. - Olivia



My blog:

- Activities from maths lessons appear on my blog:

www.authenticinquirymaths.blogspot.com

Authentic Inquiry Maths

Tuesday, 30 July 2019

1 10 100 1000 10000 100000 1000000

Let's have a look at place value with Year 4.

About Me



B Bruce Ferrington

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Thank you