

Peruse the following *iMaths 7 Investigation Overview* document for a 'snapshot' of every Investigation in the year.

Investigation	About the Investigation	Duration	Group size	Students will need	Ideal for ...	Related learning area	ACARA Sub-strands
Investigation 1 How mean are you?	This Investigation gives students hands-on measuring opportunities in a number of different contexts. By investigating similarities and differences about themselves and others, students are given the opportunity to discover how in some ways they are 'average', while in other ways they are unique. It also provides a real life scenario that leads to a deep and meaningful understanding of averages.	5 to 6 weeks (including Topics)	2 to 3 students	<ul style="list-style-type: none"> internet access BLM 1.1 – <i>Class data table</i> calculator ruler tape measure scales measuring cups and jugs stopwatch trundle wheel 	Helping students get to know each other at the start of the year.	Science, HPE	<ul style="list-style-type: none"> Real numbers Data representation and interpretation
Investigation 2 YouCube houses	This futuristic, design related Investigation gives students the opportunity to create attractive, eco-friendly, functional and economical living spaces. It provides a life-like scenario that leads to a deep and meaningful understanding of drawing complex 3D objects, area and volume. In order to convince a client that their design is the best, students will use data to justify the choices they have made.	6 to 7 weeks (including Topics)	individuals	<ul style="list-style-type: none"> BLMs 2.1–2.5 unifix, multilink cubes or MAB sticky tape, Blu-Tack and toothpicks calculator computer 	Any construction/renovation work going on locally.	English, Geography, The Arts, Technologies, Civics and Citizenship, Economics and Business	<ul style="list-style-type: none"> Real numbers Patterns and algebra Using units of measurement Shape
Investigation 3 A weighty problem	This Investigation combines mathematical investigating with scientific reporting. Students are given the opportunity to use patterns, general rules and extrapolation to test a hypothesis. Students will enjoy the hands-on experience of building boxes and weighing substances such as sand, sugar, coconut or mung beans.	5 to 6 weeks (including Topics)	2 to 3 students	<ul style="list-style-type: none"> BLM 3.1 – <i>Centimetre grid paper</i> calculator bucket of sand kitchen scales scissors adhesive tape thick cardboard graph paper or computer with graphing software 			<ul style="list-style-type: none"> Linear and non-linear relationships Patterns and algebra Number and place value
Investigation 4 It's a toss-up!	This Investigation gives students the opportunity to investigate the concept of probability and apply their knowledge to create a game of chance. As a result, the difference between theoretical probability and the actual results (experimental data) will become clearer to students and will generate interesting conversations. Playing and creating games engages students and makes mathematics more meaningful.	5 to 6 weeks (including Topics)	2 to 3 students	<ul style="list-style-type: none"> Data page 1 – <i>How to play Flip Two</i> Tear-out 2 – <i>Flip Two and Flip Three</i> calculator counters with different coloured sides (preferably red and black) internet access 		Science	<ul style="list-style-type: none"> Real numbers Chance