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| STRAND: Number + Measurement SUBSTRAND: Patterns & Algebra (A) + Length (A) STAGE: Stage 2 |
| TERM: | 1 | 2 | 3 | 4 | WEEK: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| AHC-ICON-Aboriginal Torres Strait Islander histories-300dpiAboriginal and Torres Strait Islander histories and cultures | A-ICON-Asia Australias engagement with Asia-300dpiAsia and Australia’s engagement with Asia | S-ICON-Sustainability-300dpiSustainability | CCT-ICON-critical creative thinking-300dpiCritical and creative thinking | EU-ICON-ethical understanding-300dpiEthical understanding | ICT-ICON-300dpiInformation and communication technology capability | IU-ICON-intercultural understanding-300dpiIntercultural understanding | L-ICON-literacy 300dpiLiteracy | N-ICON-numeracy-300dpiNumeracy\* | PSC-ICON-personal social capability-300dpiPersonal and social capability | WE-work and enterprise-300dpiWork and enterprise |
| ***What are we learning to do (WALT):*** Recognise, continue, create, describe and record increasing and decreasing number patterns.Use metres, centimetres and millimetres to measure, compare, order and estimate lengthsRecord lengths using abbreviations (m, cm and mm) |
| ***Adjustment:*** | **Post Assessment Highlighted**  |
| **TEACHING AND LEARNING ACTIVITIES** | **REG** |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
| ***What I’m Looking For (WILF):*** **Make and record number patterns both increasing and decreasing** | ***What I’m Looking For (WILF):*** **Make and record number patterns both increasing and decreasing** | ***What I’m Looking For (WILF):*** **Make and record number patterns both increasing and decreasing** | ***What I’m Looking For (WILF):*** ***To compare, order and estimate lengths in metres & centimetres***  |
| **Lesson Breakers****Count off** | **Lesson Breakers****Hang it on the line** | **Lesson Breakers****Sandwich boards** | **Lesson Breakers** |
| **Introduction**Provide students with a hundreds chart. Ask them to colour the multiples of 3, 4 and 7 on there. Using the same chart (and a new coloured pencil) give students a starting number and ask them to go backwards by 7’s. Using another colour provide a different starting number and ask the students to go forward by 6’s. | **Introduction** **Thinking aloud**Use a 'think aloud' strategy to explicitly teach students the steps to identify the next number in a pattern. This strategy focuses on the teacher explaining the thinking process while completing a task. The teacher models the thinking process for a subtraction number pattern by talking through these steps. Say: Look at this pattern. Can you see what has happened to get the next number in the pattern?http://www.schools.nsw.edu.au/learning/7-12assessments/naplan/teachstrategies/yr2012/images/nn_paal_02_03.jpgAre the numbers getting bigger? No. If the numbers are getting smaller, the pattern might be to take away a number. I need to find the difference between two numbers in the pattern.Two of the numbers are 46 and 40. The difference is 6. Is the difference between 58 and 52, 6? Yes. The pattern is going down by 6 each time. | **Introduction**

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| **Pattern Blocks** Students use pattern blocks to explore patterns for threes (triangles), fours (squares), and sixes (hexagons). Ask questions such as: If I had 44 pop sticks, how many squares could I make? Highlight and discuss the terms : pattern, ascending, multiplication  |

 | **Introduction****Matching Measurements** The teacher prepares matching pairs of cards eg 1 m 23 cm, 1.23 m and 123 cm; 7 cm 3 mm, 7.3 cm and 73 mm. Students use the cards to play games like Concentration, Old Maid and Fish. *Variations:* The teacher provides sets of cards in pairs, each with the same measurement represented either in whole centimetres, whole metres or in decimal notation. Students are each given a card and must find the other person in the room with the same measurement on their card. Students then order themselves in terms of shortest to longest measurements on their cards. Students could make their own sets of cards. **Teaching Measurement-Stage 2 and Stage 3**- pg 29  |
| **Body**Students use the [Exploring Patterns](http://www.learnalberta.ca/content/mejhm/index.html?l=0&ID1=AB.MATH.JR.PATT&ID2=AB.MATH.JR.PATT.PATT&lesson=html/video_interactives/patterns/patternsInteractive.html) Learning Object to explore patterns. This interactive resource generates random number patterns for students to explore, interpret and continue. Instant feedback enables students to correct errors. Included are print activities, solutions and a video which explores patterns in dance.nn_paal_02_09 | **Body****Continuing the patterns** Start a pattern on the floor with concrete materials. Explain the rule used in the pattern and ask them to continue it. After a thorough understanding of the given rule, allow some students to tell you what the rule is and apply it to a new situation. **Apple Picking**  During the holidays, Sue picked apples at the granny smith orchard.  She was paid: o 10c for the first bucket of apples, o 20c for the second, o 40c for the third and o 80c for the fourth.  If the pattern of payment continued, how much was she paid for the eighth bucket, the tenth bucket, etc?  | **Body****Making rhombuses out of popsticks**

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| **No. of rhombuses** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **No. of matchsticks** | **4** | **8** | **12** |  |  |  |  |  |  |  |

Ask students *Can you work out how many popsticks you would need if you wanted to make 15 rhombuses? What are some different ways you can work this out? Does the table help you work this out?* And: *If I used 80 popsticks, how many rhombuses could I make?* | **Body****Measuring Using Centimetres, metres and millimetres** Students find objects up to 2 m long and record the lengths in a table. Students compare their table with those of other students to identify the longest and shortest objects.

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| Object | Estimate | Measurement | DecimalNotation |
| Teacher’s desk | 1m 15cm | 1m 17cm | 1.17m |
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Discuss objects less than/about the same/ greater than 1 metre. How would you measure them? Investigate the metre ruler and its markings. Have children measure a variety of objects with a metre ruler.  |
| **Conclusion** **Topmarks** * **Count and order**
* **Counting caterpillars**
 | **Conclusion**<http://www.crickweb.co.uk/>ks1numeracy.html#100square | **Conclusion****Party** Write the following problem on a large sheet of paper. Imagine a party with four people sharing 1 pizza, 5 cupcakes, 9 sausages and 13 jelly snakes. How much would each person have if they shared everything fairly and there was nothing left over? Students use their own strategies for sharing the party items. Drawings are a common method of recording.  | **Conclusion**

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| **Height of the children**. Children estimate first their height. Measurement strips are on the wall. Children measure from strip to top of their head. Students record lengths using the abbreviation for millimetres (mm) and centimetres (cm)  |

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| **Resources*** Hundreds chart
* Coloured pencils
* [www.topmarks.co.uk](http://www.topmarks.co.uk)
* Exploring Patterns
 | **Resources*** Concrete materials
* Number cards

<http://www.crickweb.co.uk/>ks1numeracy.html#100square | **Resources*** Large sheet of paper with the problem
* Pattern blocks
* Paddle pop sticks
 | **Resources*** Rulers
* Record table
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| **Reflection/Check In** | **Reflection/Check In** | **Reflection/Check In** | **Reflection/Check In** |