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| STRAND: Number + Measurement SUBSTRAND: Fractions (B) + Mass (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):***  **Represent fractions on a number line that extends beyond 1.**  **Recognise the need for formal units to measure mass.**  **Use kilograms to measure, compare, order and estimate masses**.  Record masses using abbreviations (kg). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ***Adjustment:*** | | | | | | | | | | | | | | **Post Assessment Highlighted** | | | | | | | | | | | | | | | | | |
| **TEACHING AND LEARNING ACTIVITIES** | | | | | | | | | | | | | | | | | | | | | | | | | **REG** | | | | | | |
| **Monday** | | | | | | | **Tuesday** | | | | | | **Wednesday** | | | | | | | | | **Thursday** | | | | | | | | | |
| ***What I’m Looking For (WILF):***  ***To order fractions on a numberline*** | | | | | | | ***What I’m Looking For (WILF):***  ***To order and compare fractions*** | | | | | | ***What I’m Looking For (WILF):***  *To see fractions as part of a whole and order them* | | | | | | | | | ***What I’m Looking For (WILF):***  ***To measure and discover the need for formal units eg. kg.*** | | | | | | | | | |
| **Lesson Breakers** | | | | | | | **Lesson Breakers** | | | | | | **Lesson Breakers** | | | | | | | | | **Lesson Breakers** | | | | | | | | | |
| **Introduction**  **Clothes Line Fractions**  Distribute fraction cards eg 1/5, 2/5, 3/5, 4/5,5/5, 1/10, 2/10, 3/10 etc and place cards for 0 and 1. Discuss where to place 1/5, 1/10 and have students peg cards on a string number line in the appropriate place and explain their reason why. | | | | | | | **Introduction**  Class counting starting from one fifth. Add a fifth until 4 whole is reached. (Play again but count by quarters, halves or thirds)  [www.studyladder.com.au](http://www.studyladder.com.au) – Orange – Identifying fractions | | | | | | **Introduction**   |  | | --- | | **Fraction Bingo** You need : one set of  fraction picture cards. Each player  needs a blank Bingo card divided into  5x5 squares. Players write stated  fractions on the board filling it up.  Caller shows pictures. Players use  counters to cover it on their board.  First player to get three counters in  a row is the winner. | |  | | | | | | | | | | **Introduction**  Students sit in a whole-class circle and pass around 4 or 5 closed containers that contain small items, to music. When the music stops, the students holding the containers write on the board their estimate of the mass of the container and its contents as being: less than 1kg, about 1kg or more than 1kg. After several estimates for the different objects have been recorded, teacher weighs the items to determine who had the closest estimate. | | | | | | | | | |
| **Body**  **Colour the Fraction (halves, quarters, fifths ,eighths and tenths)**  Each student takes it in turns to roll the die and colour in the equivalent fraction on the gameboard.  Record each roll of the die throughout the game.  • Each row in the gameboard is equal to one whole.  • The first student to colour the entire gameboard is the winner.  • At the completion of the game, add the fractions recorded below, to ensure they equal to at least five.  **Programming mathematics support**  http://www.curriculumsupport.education.nsw.gov.au/primary/mathematics/k6/learningobjects/fraction\_track/documents/colourfract3.pdf | | | | | | | **Body**   |  | | --- | | **Comparing and Ordering**  Model different ways to represent the  same fraction as a whole class on the  board.  Students are provided with four sets of  cards representing the same fractions.  The first set has the fractions represented in fraction notation, the second set has the fractions represented in words, the  third set has the fractions represented  as shaded regions and the fourth set has  the fractions represented as the shaded  part of a collection. The cards are  randomly distributed to students who  must find other students with the same  fraction represented. Students then  place the sets of fraction cards in order. | |  | | | | | | | **Body**   |  | | --- | | **Make a whole**  Each student has 4 strips of paper. Label  one piece of paper “one whole”. Fold  next strip into 2 equal parts and cut  along the fold. Ask what would we call  each part? Then label each part ½ .  Continue with students making ¼ and  1/8 strips. Each part has to be labelled  and initialled. Organise students into  groups of 4to play “Make a Whole”.  Students place their “one whole” strip  in front of them. Roll a die labelled ½ ¼  1/8. Each student rolls die in turn. The  aim is to collect enough parts to make  one whole.  **Investigation: Fraction Match Up**  Half the class take a card which has  a picture of a circle showing a coloured  fraction.  The rest take a card with a fraction  written on it. Students move around  the room until they find a match and  sit together. | | | | | | | | | | **Body**  **Students heft their pencil cases (including contents), and sort the cases from lightest to heaviest.** Students discuss which pencil cases would make a combined mass of about 1 kilogram. Weigh the predicted combinations and record the results stating if the mass of the pencil cases was less than 1 kilogram, equal to 1 kilogram or more than 1 kilogram.  In groups, students are provided sand, rice, marbles, blocks, (any appropriate items) and large plastic containers. Students estimate 1kg by hefting a weight.  Language Use – hefting (not weighing), *What is the mass?* More, less, how much, kilogram (avoid K-Gs) kilos, | | | | | | | | | |
| **Conclusion**   |  | | --- | | **Fraction Track**  The object of the activity is to move  all the red sliders across the track in  the smallest number of moves. The  students click on the playing card to  identify the fraction and move one slider  by the amount on the card, or move  more than one slider as long as it equals  and doesn’t exceed the value of the  fraction.  <http://www.curriculumsupport.education>  .nsw.gov.au/countmein/children\_fraction  \_track.html | | | | | | | | **Conclusion**  **Ribbon Fractions**  The RIBBON FRACTIONS is an interactive tool that can be used in strengthening students' sense of the size of fractions  <http://www.curriculumsupport.education.nsw.gov.au/countmein/children_ribbon_fractions.html> | | | | | | **Conclusion**  [www.fractionmonkey.co.uk](http://www.fractionmonkey.co.uk)  Play the game using monkeys to be placed on a number line. | | | | | | | | | **Conclusion**  Students make kilogram masses using a variety of materials e.g. marbles, tennis balls golf balls, textas, pairs of scissors (food items can also be used such as apples, oranges, muesli bars, snake lollies etc) Each group, does one item and reports back to class. Discuss differences in quantity of materials needed to make a kilogram. | | | | | | | | | |
| **Resources**   * **Fraction cards** * **Clothes line** * <http://www.curriculumsupport.education.nsw.gov.au/countmein/children_fraction_track.html> * Copies of fraction wall on pdf | | | | | | | **Resources**   * Ribbon fractions (<http://www.curriculumsupport.education.nsw.gov.au/countmein/children_ribbon_fractions.html>) * Fractions cards * [www.studyladder.com.au](http://www.studyladder.com.au) – Orange – Identifying fractions | | | | | | **Resources**   * [www.fractionmonkey.co.uk](http://www.fractionmonkey.co.uk) * Paper strips * Fraction cards * 5x5 bingo squares | | | | | | | | | **Resources**   * 4 or 5 sealed container of different weights. * 1kg weight * Pencil cases * Blocks, sand etc * Empty containers | | | | | | | | | |
| **Reflection/Check In** | | | | | | | **Reflection/Check In** | | | | | | **Reflection/Check In** | | | | | | | | | **Reflection/Check In** | | | | | | | | | |