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| **Experiences and Outcomes** | **Learning Intentions (Broad to fit with Es and Os)** | | **Benchmarks** | |
| **MNU 3-03a**  I can use a variety of methods to solve number problems in familiar contexts, clearly communicating my processes and solutions.  **MNU 3-07a**  I can solve problems by carrying out calculations with a wide range of fractions, decimal fractions and percentages, using my answers to make comparisons and informed choices for real-life situations.  **MNU 3-08a**  I can show how quantities that are related can be increased or decreased proportionally and apply this to solve problems in everyday contexts.  **MNU 3-11a**  I can solve practical problems by applying my knowledge of measure, choosing the appropriate units and degree of accuracy for the task and using a formula to calculate area or volume when required. | I can work with decimals to convert between metric and imperial units.  I can calculate the area of a variety of different shapes including compound shapes, triangles and the surface area of a 3d shape.  I can work with volume, explaining clearly what my understanding of it is and use my knowledge to calculate the volume of some 3d shapes.  I can apply my understanding of scale to create an accurate plan or drawing.  I can apply my understanding of ratio and proportion to increase and decrease related quantities. | | Interprets and solves multistep problems in familiar contexts ensuring correct order of operations.  Communicates and justifies strategies used to solve problems.  Solves problems in which related quantities are increased or decreased proportionally.  Selects and communicates processes and solutions.  Chooses appropriate units for length, area and volume when solving practical problems.  Finds the area of compound 2D shapes and explains the method used.  Uses a formula to calculate the volume of regular prisms and cuboids. | |
| **Assessment**  **Hinge Questions/Ongoing Assessment**  What formula do you need to use to calculate the volume of this shape?  What does volume mean?  How do you use ratio to increase/decrease a quantity?  Which operation do you think you will need to use to calculate this part of the problem?  Why are you using that strategy? | **Success Criteria (Created with children)**  *The success criteria breaks each of the Learning Intentions into smaller constituent parts, allowing the children to see exactly what they need to do to achieve the Learning Intention. It should be created in discussion with them so that they are clear about their learning.* | |
| **Holistic Assessment- Gingerbread House task**  **1. Using the amounts provided to make an area of 1044cm², calculate the amounts of each ingredient required for the different areas shown.**  **250g unsalted butter**  **200g dark muscavado sugar**  **7 tbsp golden syrup**  **600g plain flour**  **2 tsp bicarbonate of soda**  **4 tsp ground ginger**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **AREA** | **BUTTER** | **SUGAR** | **SYRUP** | **FLOUR** | **BICARBONATE** | **GINGER** | | **522 cm²** |  |  |  |  |  |  | | **261 cm²** |  |  |  |  |  |  | |  |  |  |  | **100g** |  |  | |  |  | **50g** |  |  |  |  | |  | **50g** |  |  |  |  |  |   **2. Answer the following questions on converting measures. Please remember to be ready to explain how you have worked something out!**  **a. How many kilograms of butter will you need for 522 cm² of gingerbread?**  **b. How many teaspoons of syrup would you need for 1044 cm² of gingerbread?**  **c. How many pounds of sugar are there in 200g?**  **d. If you had enough gingerbread to make 174cm², how many ounces of flour would you need?**  **e. Draw as many rectangles as you can with an area of 174cm². These do not need to be to scale but you MUST write the measurements of each length in both cm and m.**  **3. Using an A3 sheet, plan your own gingerbread house. You will need to draw images of differing views – front view, side view, back view and so on. These will represent the pieces of gingerbread that will need to be cooked. You also need to calculate the area of each different section.**  **4. Using the card provided, create a model of your gingerbread house to check that it works! How many sweets could you cram inside your gingerbread house?**  **5. Using the areas that you calculated in section 3, complete the quantities that will be needed for each of the ingredients.**   |  |  | | --- | --- | | **Ingredient** | **Quantity needed** | | **Unsalted butter** |  | | **Dark muscavado sugar** |  | | **Golden syrup** |  | | **Plain flour** |  | | **Bicarbonate of soda** |  | | **Ground ginger** |  |   **6. Finally, head off to Home Economics and bake your gingerbread using the Method that has been provided!** | | | | |
| **Planned Activities - *Within this section, teacher would put in suitable activities that would allow children to have the skills to apply to the holistic assessment detailed above. A useful way of thinking about these activities is using SAY, WRITE, MAKE, and DO. It will also be based around whichever schemes of work or resources available within the school.*** | | **Evaluation and Reporting**  (Against LIs and SC) | | **Next Steps** |
| **SAY**  PERFECT OPPORTUNITY TO LINK HERE WITH NUMBER TALKS – USING THOSE SKILLS WHICH WOULD SUIT THIS PARTICULAR BLOCK OF LEARNING | |  | |  |
| **WRITE**  WRITTEN EXERCISES WHICH WOULD BE SUITABLE, CHOSEN FROM RESOURCES AVAILABLE WITHIN SCHOOL i.e. Teejay, HAM etc. | |
| **MAKE**  PRACTICAL ACTIVITIES FOR CHILDREN TO APPLY THEIR LEARNING i.e. LEARNING VIDEOS WHERE THEY DISCUSS HOW TO DO A PARTICULAR ASPECT OF NUMERACY, POSTERS TO BE SHARED WITH CLASS. | |
| **DO**  PROBLEM SOLVING ACTIVITIES ALLOWING THEM TO APPLY THEIR LEARNING i.e. GAMES FROM HAM, youcubed.org. | |