

<b>Design Technology: Understanding Macro and Micronutrient function Year 8 - 6 lessons</b>	
Knowing the key elements to eating healthily in everyday life	
<p><b>Substantive knowledge: Practical</b> (Knowing what)</p> <p>Macro and micronutrients are needed for a variety of reasons. Refinement of chopping, temperature control and mixing techniques</p>	<p><b>Substantive knowledge: Theoretical</b> <b>Design/Designers</b></p> <p>Ainsley Harriet – meals in minutes Heston Blumenthal – deceptive Hairy Bikers – weight loss/ healthy eating Paul Hollywood – bread expert</p>
<p><b>Disciplinary knowledge</b> (Knowing how to)</p> <p>Consider the need for macro and micronutrients in the body Produce meals that reflect macro and micronutrients</p>	
<p>Ingredients</p> <p>Rice, stock cube, vegetables, water, sr flour, bread flour, yeast, food colouring, garlic, sugar, carrots</p>	<p>Equipment</p> <p>Knife, chopping board, oven, hob, baking tray, saucepan/frying pan, spoon, tin opener, wooden spoon, fish slice, baking parchment, bowls</p>
<p><b>Tools to create the nutrient human</b></p>	<p>Coloured water of various ml's, paper, pens, scissors, glue, colouring pencils, a3 paper</p>
<p><b>Key vocabulary</b></p>	<p>Macronutrients, micronutrients, carbohydrates, vitamins, minerals, fat, fibre, protein, simmering, simple, complex, hydration, function</p>
<p><b>Golden threads – research, design, make, evaluate</b></p>	<p><b>Research</b> macro and micronutrients. <b>Design</b> a nutrient 'human' <b>make</b> products that include macro and micronutrients <b>evaluate</b> practical outcomes</p>
<p><b>Cultural capital</b></p>	<p>-Exploration of the categorisation of nutrients and how this can impact a healthy lifestyle -Expose students to a variety of nutritional options that they might not have experienced before due to affordability</p>
<p><b>What prior knowledge needs to be revisited to underpin the learning of new content</b></p>	<p>Segments of eat well guide Basic functions of carbohydrate, protein and fibre</p>
<p><b>Common Misconceptions</b></p>	<p>Fruits and vegetables are a nutrient group The difference between simple and complex carbs</p>
<p><b>How can the content be extended for HPA?</b></p>	<p>More independent practical work with methods Higher level terminology used Greater depth for evaluation</p>
<p><b>How can the content be adapted for SEND</b></p>	<ol style="list-style-type: none"> <li>1. Instructions/ tasks chunked on cream paper with wide spaces between words if required</li> <li>2. More support in practical work may need to be given depending on the nature of the need.</li> <li>3. Methods printed with a tick box per step</li> <li>4. Some may produce a less technical outcome in practical work depending on the nature of the need</li> </ol>

	<ol style="list-style-type: none"> <li>5. Evaluation outline if required</li> <li>6. Sentence starters</li> <li>7. Examples</li> <li>1. Scaffolded examples</li> </ol>
<b>What is the homework?</b>	<ol style="list-style-type: none"> <li>1. edpuzzle quiz nutrients</li> <li>2. edpuzzle quiz macronutrients</li> <li>3. edpuzzle quiz micronutrients</li> </ol>
<p style="text-align: center;">Lesson objectives</p> <ol style="list-style-type: none"> <li>1. Revisit principals of the Eatwell guide and identify where the macro and micronutrients are found in it</li> <li>2. Describe various factors that effect levels of hydration and name possible sources</li> <li>3. identify the difference between simple and complex carbs and their effects on the body</li> <li>4. Savoury rice practical – Application of macro/micronutrient knowledge</li> <li>5. identify types of fat and how they affect the body</li> <li>6. identify two types of fibre and protein functions and their effects on the body</li> </ol>	<p style="text-align: center;">Assessment and <i>success criteria</i></p> <ol style="list-style-type: none"> <li>1. Q&amp;A, exit quiz, verbal feedback. <i>Be able to identify where macro and micronutrients can be found in segments of the eat well guide</i></li> <li>2. Visual movement to stations, exit quiz, verbal feedback. <i>Be able to describe the best type of hydration and when you would need more</i></li> <li>3. Visual movement to area, exit quiz, verbal feedback. <i>Be able to identify sources of simple and complex carbohydrates</i></li> <li>4. RAG, self-assess, teacher observation sheet. <i>wrap should be complete and made according to the recipe</i></li> <li>5. Match up, Q&amp;A, quiz. <i>Be able to describe the effect of fats on the body and their sources</i></li> <li>6. Fill in blanks, Q&amp;A, quiz. <i>Be able to describe the effect of fibre and protein on the body and their sources</i></li> </ol>



**DT Intent - Developing students to be informed consumers, provide life skills for adulthood, including leisure and mental health, and for a wide range of careers**