

<p>Topic: Living things</p>	<p>Year 6/7 Transition Age 10-12</p>	<p>Title: Growing yeast</p>
<p>Working scientifically Plan: Make predictions using scientific knowledge and understanding</p>	<p>Concept context Yeast is a living microorganism which needs sugar and warmth to produce carbon dioxide. How organisms affect, and are affected by, their environment</p>	
<p>Skills progression focus</p> <ul style="list-style-type: none"> • Can children make and explain their predictions? • Can children compare different conditions for yeast growth to test their predictions? 		
<p>Activity <i>Today we will be food technicians.</i> Ask children to observe, smell and touch dried yeast. Have they seen yeast before? What do they know about yeast? Show a small bottle or tube containing warm water, yeast and sugar. What is the gas? Why is it produced? Where is it used? Link to bread and making dough rise. (Further info for teacher: https://sciencebob.com/blow-up-a-balloon-with-yeast/) What variables could affect the yeast growth? Ask the children to explain their predictions for which mixture of yeast, sugar and water would produce the most gas. Different groups could be exploring different amounts of sugar, yeast, temperature or amount of water. Discuss how they might measure the gas. (Yeast mixtures can be placed in test tubes/drink bottles with balloons over the neck and measurements taken of the inflated balloon – length, circumference).</p> <p>Adapting the activity Support: Support the children to focus on one variable for predicting and testing e.g. how does the amount of sugar affect the amount of gas produced? Extension: Children independently set up their own investigations suggesting quantities to be used. Other ideas: Making bread. Or investigate: does yeast only eat sugar?</p> <p>Questions to support discussion</p> <ul style="list-style-type: none"> • What happens when the yeast is mixed with sugar and water? • How much yeast/water/sugar should we try? • What do you predict will be the best combination? Why? • How do you think the temperature might affect the yeast? • How can you measure the quantity of gas made? • How could you be more accurate in measuring the amount of gas produced? 		
<p>Assessment indicators Not yet met: Pupils make predictions but find it difficult to explain their reasons. They are not clear about how to test their predictions or what their results show. Meeting: Pupils make and explain their predictions e.g. <i>more sugar will be better because the yeast needs something to eat.</i> They test their predictions, noting the amount of gas produced and what this means. Possible ways of going further: Pupils may acknowledge the difficulties in measuring the amount of gas produced and make suggestions about how to be more accurate. They may recognise that conditions need to be 'just right' to produce the most gas (the warmer the better, until it gets too hot and kills the yeast).</p>		

