

Using Drama to learn Science : A Thematic approach : Food (with Life and living processes as scientific focus)



Strategy	Description of Strategy	Key learning objectives	Possible activities	Suggestions for question starters
<p>1. Modelling</p>	<p>Modelling is a way of physically creating a model of an object and exploring how it works/ acts.</p>	<p>To share and develop ideas on how plants grow and where food grows on plants</p>	<p>Children in groups (3 or 4). Cards are provided that suggest what plant (in words not pictures) the children might be including : Beans/tomato/apple/potato/peas/strawberry Children as asked to choose a card to find out what kind of plant they are.</p> <p>The children are given rehearsal time. During that time, as teacher you can perhaps pick out some that will provide useful and helpful (as well as contrasting) demonstrations of different plants.</p> <p>Children model that plant.</p> <p>The class watch, teacher guides reflective questions: What can we tell about the plant? Is it tall/ small bushy/ spindly. Would it be on its own? Or be surrounded by others very similar to itself? Does it grow outwards, upwards or down into the soil? What plant parts can you see? What is the stem like? Why do think it is like that? What are the leaves like? Which part do you think we eat?</p> <p>Children reveal the plant they are.</p> <p>A second group are asked to demonstrate their plant. How is this plant the same or different? Reflective discussion can be held after each of the enactments.</p> <p>Give out five 'food' cards (pictures of the fruit/vegetables) e.g. tomato, apple, potato etc....</p>	<p>What do they think.. ? What might it be? Why do you think..? Is it... or..? Can they describe where....? How do they know?</p>

			<p>The second time the children model the plant growing, they are asked to place/hold the card where the part that is eaten should be.</p> <p>Some reflective questions to pose the class could be : Look at the range of places they put the pictures. Do we think the edible parts grow where the groups have shown them to? Why do they think that? How could we find out if we are right? Would the plant be easy to find at this time of year? Are there any other ways we can check which is the edible part?</p>	
2. On the table	<p>Examining seeds, fruits. (often unusual or to be used in an unusual way) Group/s are presented with an object under the Eascope/ Digital microscope/ Visualiser The teacher models open questions –what could it be? Why is it that colour? I wonder what it might be used for?</p>	<p>To explore objects, to speculate and evaluate. To observe and listen carefully. To take turns and share ideas.</p>	<p>Different seeds and nuts are hidden behind a screen and the visualizer/eascope is used to explore their features. Questions you can ask are : What do you think this is? Do you think these are alive or dead? Can you tell if they are alive or dead? How could we find out? If I planted these seeds what do you think these will grow into? Why do you think that? Can you see any evidence that tells us what they grew from? What does it look like has happened? What has emerged? What do you think that is? What do you think this seed might grow into? How different are these to the other seeds? What food might this be? Would you like to eat this food?</p>	<p>What could it...? What might it..? What do you think? Do you think..? What do other people think? How could we ...?</p>
3. Spontaneous role play.	<p>In small groups children develop arguments about science in everyday life. By working 'in role' they can explore views and ideas which may be different from their own.</p>	<p>To explore ideas and solve problems. To apply understanding of foods and eating healthily to make decisions. To take turns.</p>	<p>Children are in groups. Each group is a family so the children choose who will be who in the family. Children are asked to imagine that they are a family in a supermarket buying food for a meal. Each group were asked to think of some foods that they might not want to eat and to think of some reasons why they might not want to eat it. Your choice might depend on whether you are a child or not, your age, whether you are a boy or girl. The discussion could become more complex if each family has a member that is allergic or sensitive to gluten or they are diabetic for example. Groups act out discussion and agree what they will buy in the supermarket to make a healthy meal.</p>	<p>What might they..? How would they..? What else might they..? Should we...? What might happen if..? Why do you think...?</p>
3. Miming	Pairs/ groups/ individuals	To apply understanding	Children in groups (3 or 4). Either playing tag or playing on the	How do you feel?

<p>movement (1)</p>	<p>mime movement allowing them to explore different types/ ways of moving and how this might be affected by different circumstances.</p>	<p>of the need for a variety of foods to keep healthy.</p>	<p>computer. Act out. Freeze frame Children are given a card of what they can eat (beef burgers & chips/pizza/meat & two veg/only fruit). They can eat only this food. They have to mime eating the food and then going out to play (tag) or if they play on computer a lot (or xbox) to enact what they normally do (but influenced by the change in diet). Groups act out what they might feel like, be like after eating only this food for a day/ week/ year.</p>	<p>Would you move fast or slow? How are you..?</p>
<p>4. Freeze frame.</p>	<p>A freeze-frame is a frozen moment. Group act out a phenomena, on hearing a cue e.g. freeze, clap the group/ individual stops and holds their position. This allows the group to examine and reflect on what is happening at that moment.</p>	<p>To explore ways to overcome everyday problems.</p>	<p>This is continued after the miming movement. The children are asked to 'freeze' at three important stages (after a day, after a week, after a year) in their development if they only eat the foods given on the cards.</p>	<p>What is happening? How does it feel? What will you do? How will this help?</p>
<p>5. Hot seating.</p>	<p>Where teachers or children are placed 'in role' as experts to answer questions from their peers.</p>	<p>To explore problems and make reasoned decisions. To ask questions and listen carefully. To listen and respond appropriately.</p>	<p>An 'Expert' in role is dressed up as a Victorian gardener. The scene must be set, back in time before computers, TV, cars, fridges and freezers. Teacher asks questions of the children. This is then followed by similar questions to the expert. Children can work in pairs to come up with questions to ask. Where do you get your food from? What sort of things might you grow? Where do you think people got their food in the past? What do you think a Victorian kitchen gardener might do? Seth Jones. What does Victorian kitchen gardener might do? Then... What do you do? Where do people get their food from? Do you eat any of the stuff that is grown in the garden?</p>	<p>What would you choose? Why? What might you..? How could you..? How do you? Where do you?</p>

			<p>What kinds of things do you grow? Who decides what you grow? How do you decide where to grow different things? What do you do if you grow too much?</p>	
<p>6. Miming Movement (2)</p>	<p>Pairs/ groups/ individuals mime movement allowing them to explore different types/ ways of moving and how this might be affected by different circumstances.</p>	<p>To explore and develop ideas on where our food comes from</p>	<p>Children in groups of three or four. Children are given picture cards of raw (unprocessed) food and food in its processed form e.g. potato and potato smiley face, picture of a bullock and a beef burger, butter bean and tin of baked beans. Children discuss, practice and then act out how they think the food is turned into its final form.</p> <p>Other children describe what is happening. Children then question group (and teacher guides discussion) to develop their understanding of what is happening.</p>	<p>What can you see? What does that tell you? What happens if..? What do you think is happening? Is it ../ or? Why is it..? How did you make it..?</p>
<p>7. Mini-historical play</p>	<p>The teacher tells the group a story –which could be scripted. During the story members of the group become the characters in the story – they could be given a prop/ costume item to signify who they are or a simple line to say. There might be moments in the story when whole groups are engaged or moments when they could offer their thoughts on the events of the story e.g. a meeting, Through this enacting the story is brought to life.</p>	<p>To familiarise themselves with scientists of the past. To develop observation skills and see how these Are important in the development of a scientific idea.</p>	<p>The mini historical play of Louis Pasteur can be narrated to the children so that they can ‘act’ out different characterisations and also pause and reflect on the scientist and development of his scientific skills. Louis Pasteur’s father was a tanner. He had four other siblings. He was a keen fisherman and artist. He was very quiet and shy. He drew lots of portraits of his parents and his sisters. His sisters often had aching necks because they had to sit so long when he was drawing them. At school his teachers thought he was stupid. Q : Why do you think this might be? At college Louis became interested in how yeast made wine and how other tiny creatures called microbes made food and drink go bad. These microbes seemed to make wine turn to vinegar! From his careful observations he deduced that microbes (bacteria) also caused illness. He also experimented with ways to stop bacteria making food bad and people ill. He cured a boy of rabies (foaming at the mouth) a disease passed onto him from a dog. Q : What skills did Pasteur develop that made him a good</p>	<p>What did he do? Why do you think he..? What did he do that makes him remembered? How would he feel? How did he..? How might we find out? How did fishing and art help him to become a good scientist?</p>

<p>8. Mind Movies</p>	<p>Using audio and/ or visual stimuli to support the children to imagine themselves in different places/ situations. Group/s listen to a description/ sounds of a location. Whilst their eyes are shut the group/s can be asked questions about what they can hear/see so they can build up their own picture in their mind.</p>	<p>To explore similarities and differences between different places where food is brought or grown, how food might be eaten.</p>	<p>scientist?</p> <p>Ask to children to imagine they are sitting on a flying carpet. Describe the scene e.g. put your seat belts on, describe what you might see as you fly to over the landscapes. Purposely travelling over different countries that grow foods, like rice that we eat, but is not grown in England. This is the kind of discussion you might have, with a picture of paddy fields in China. In this field covered in water, I can see lots of green shoots, what might they be? There are people in hats. What can others see? People are planting and spreading out the seeds –about a hand span apart? I can see water buffalo? Are they pulling anything? A wooden thing or machine, I think it is doing something to the soil. Someone doing something to the soil. Then show picture of Asian market. Remind children flying on carpet over the market. I can hear lots of people talking, people buying and selling Where do you think this might be? Will it smell good or not? Picture of noodles. What might they be making? How will they eat these noodles? Sitting down, big bowls. What with a knife and a fork? Fly back over.. the north sea....to England...where the teacher can say to the children : I can see large field birds singing rich dark brown colour. Where do you think we might be? What else might we see in this field? How will things change in the field in the spring, summer, autumn and winter? What will be happening? It is a warm day, I can hear a machine, what might that be? What might it be doing? Picture of a supermarket in England. How is it the same different from the market in China? Where might we find the wheat we have seen? Could we grown rice in the golden field in Kent?</p>	<p>What can you see/ hear/ smell? Are they..? Which are... Why can you ..? What can you..? Are there any..?</p> <p>How do you know this place is like that? Is it ...or..? How do you know?</p>
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