

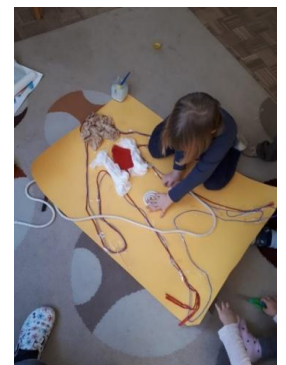




Learning Scientific Skills Outside the Classroom

Scientific Skills

Measuring		Concluding Specific skill – use simple scientific language to answer simple questions	
Country of Origin	Suggested Age Range	Suggested Theme	
 Croatia	4 – 5	Animals including Humans	
Location outside the classroom		Benefits of using this location	
School Grounds		A large area is needed to measure the length of the small intestine effectively	
Learning Objectives - Scientific Skills		Learning Objectives - Knowledge	
To measure length using non-standardised objects - for this activity children are the non-standardised objects To communicate what they have found out using simple scientific language		To know what happens to the food we eat To know how long the small intestine is	
Key Vocabulary			
Scientific skills vocabulary – measure, measuring, conclude, concluding, communicate, tell, find out Knowledge vocabulary – internal organs, stomach, bowel, intestine, digestion			
Resources / Equipment			
<ul style="list-style-type: none"> • Equipment to build human model – large piece of sugar paper, different coloured string, cloth, tissue paper • Equipment to measure length – rope 			
Teaching Activities			
<p>Prior Learning – Children will have learnt about some of the organs in the human body and how they function. They will know that the stomach and intestines are used by our body to help us digest the food we eat.</p> <p>Discuss – What organs do we have in our body?</p> <p>Activity – Children work together with an adult to make a model of the human body and its organs on a large piece of sugar paper.</p>			
	<p>Explain – We have lots of organs in our body and they are all different sizes. They are going to think about the organs our body needs to use when we eat and digest food. When we eat and swallow food, it goes down a tube from our mouth to our stomach.</p>		
	<p>Demonstrate – Show children a model of what happens in our stomach when we swallow bread. Pour some water into a transparent sealed bag (to represent the stomach) and add some bread. Children watch over the next few minutes to see what happens to the bread.</p>		
	<p>Discuss and conclude – What happened to the piece of bread? Why did it do this? Encourage children to use simple scientific language when explaining what happened.</p>		
	<p>Explain – In our stomach, the bread gets broken down into very small pieces. The tiny digested pieces then go through a very long tube called the intestine (at this point the children do not need to understand the difference between the small and the large intestine). Tell them that today they are going to measure how long the small intestine is.</p>		





Activity – Give the children a piece of rope which is the same length as the small intestine (the small bowel) and ask them to lay out the rope in a straight line, stretching it out as tight as they can. The children will then work together to measure how many children are the same length as the human bowel.

Measure – Children lay down and stretch alongside the rope, head to toe, to measure how many children are the same length as the small intestine.



Discuss – How many children did you need? Does it matter what children were used for measuring the length?

Conclude – Ask children to tell you, using simple scientific language, what they have found out about how long the small intestine is.

Examples of children’s work and teacher comments from country of origin



The children showed a great interest and curiosity for exploring and learning about the human body. It is essential to include these kind of activities to encourage active learning. Next steps would be to think about how they can measure the volume of the human stomach or how long the blood vessels are so children can understand the size of the organs in the human body.