



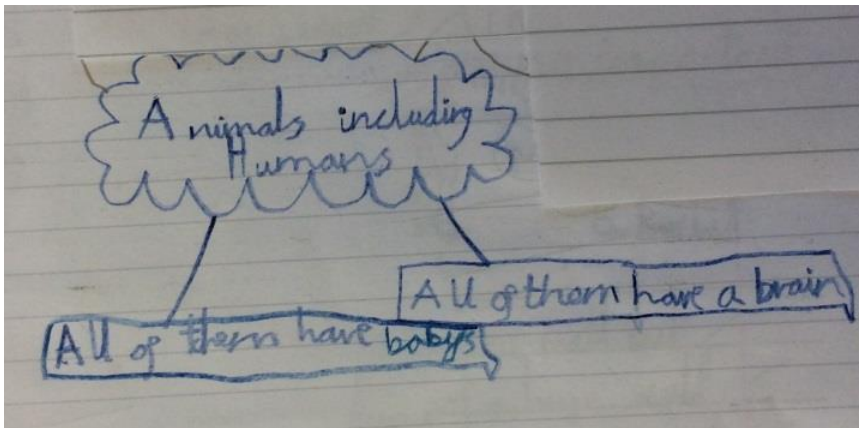




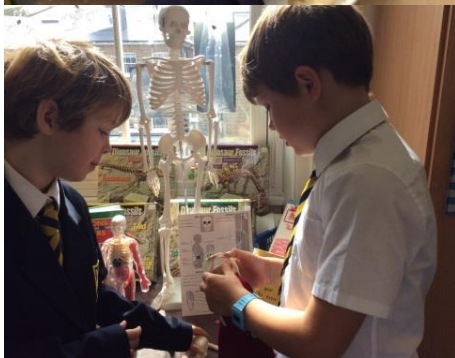


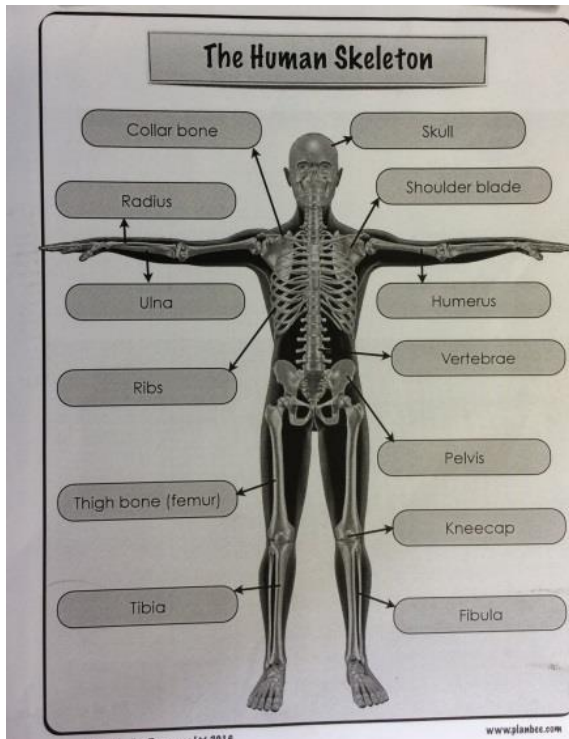
Examples of Work
Max
Animals, including humans - Year 3


	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1) Notice that animals, including humans, have offspring which grow into adults. (Y2) 			
	Description of activity			
	The pupils were shown images of a snail, worm and mouse and asked to discuss which they felt was the odd one out.			

EVIDENCE OF LEARNING			ASSESSMENT
Oral evidence	Examples of work		Knowledge
<p>"The mouse is the only one with legs. The snail has a shell. The mouse has eyes. Can a snail see? I don't think a worm can because they live underground in the dark."</p>	<div> <div>worm</div>  </div> <div>  <div>snail</div> </div> <div> <div>mouse</div>  </div>		<p>Max talks about similarities and differences between the animals and also identifies two things that the animals have in common with humans.</p>
Teacher observations			Working scientifically
			


	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none">Identify that humans and some other animals have skeletons and muscles for support, protection and movement.			
	Description of activity			
	The pupils were given time to dig up bones and then encouraged to try to match them to the human skeleton and then use the worksheet to name the bones.			

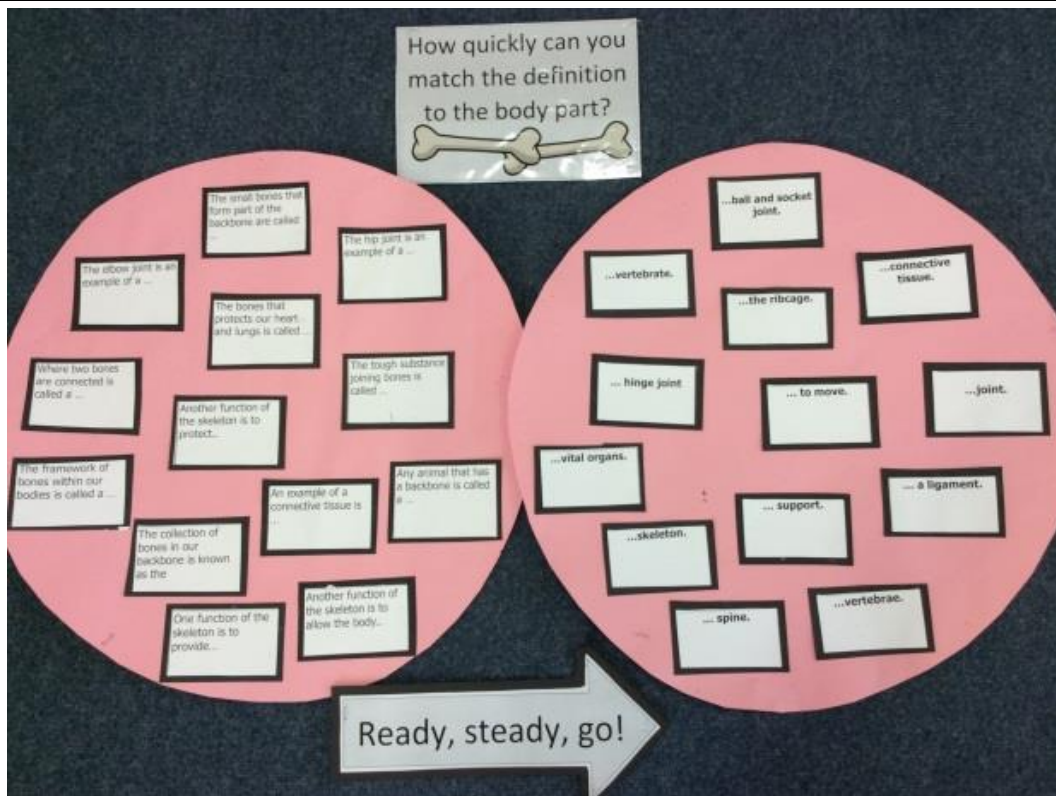
EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"I'm not sure if this bone is an arm or a leg bone. It could be a humerus or a femur. They are quite the same in shape."</p>		<p>Max is beginning to learn the names of some of the bones in the human body.</p>
Teacher observations		Working scientifically
		<p>Max matches the 'found' bones to those on the human skeleton by looking at the shape and uses the sheet to name them.</p>




	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were given three questions to discuss in small groups.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>1. "Quite droopy and we would probably live in the sea. On the land, you need to stand up but, in the water, it keeps you up. We would just be able to spin around if we just had muscles. You can do handstands in the water because it keeps you up so it's easier."</p> <p>2. "No, it would just be as floppy as muscle. With no skeleton, we would just be about a lump of muscles and then we would have to wriggle about!"</p> <p>3. "Muscles connect to bones and then the bones somehow help the muscles to move... well, jellyfish can move so I'm not sure about how that works?"</p>	<p>1. What would it be like if you had no skeleton?</p> <p>2. Do you think a fabric skeleton would work?</p> <p>3. What do you know about muscles and how they work?</p>	<p>Max understands that the skeleton and muscles help some animals, including humans, to move and also give them support. He does not talk about their role in protecting organs.</p>
Teacher observations		Working scientifically

	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The class regularly used a set of matching cards to consolidate their understanding.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"I can match the cards really quickly because I know lots about the skeleton and how it supports you to stand up, helps you move (with the muscles), and protects your organs."</p>		<p>Max is secure on the functions of the skeleton.</p>
Teacher observations		Working scientifically


	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were asked to sort the bones that they found during the archaeological dig in different ways.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"We sorted the bones that protect and bones that don't. The skull protects the brain, but babies' are disconnected. That's why you have to be so careful until they are about 6 months. The rib cage protects the heart and the lungs. I think this bone protects the blood that goes through your neck. There is also bones that don't move and bones that move like your finger.</p>		
<p>Teacher observations</p> <p>Teacher: "Can you explain why you can bend your fingers like that?"</p> <p>Max: "Well, they are joined because there are more than one solid bone in your finger. Like there are four in your finger."</p> <p>Teacher: "What makes you think there are four?"</p> <p>Max: "Well, you can feel them... [Max feels and squeezes his finger.] Actually, there are three."</p>		<p>Working scientifically</p> <p>Max selects different ways to sort the bones.</p>


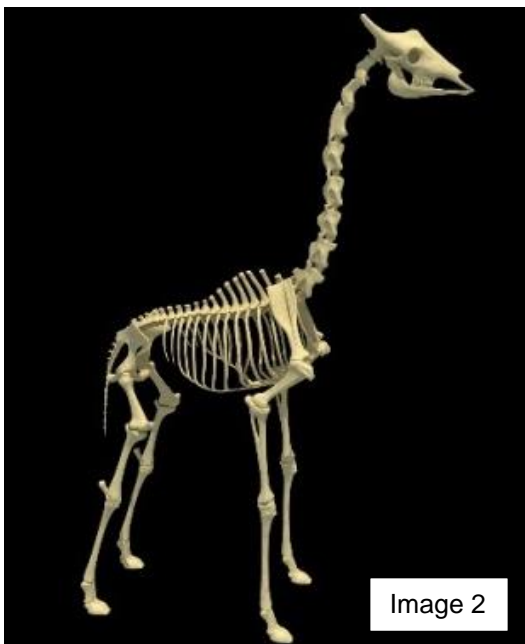
	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	<p>The pupils worked in pairs. They were given two minutes to prepare their argument from one of the following two perspectives.</p> <ul style="list-style-type: none"> We are better off because we have a skeleton. We are worse off because we have a skeleton. 			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
	<p>Max: "I think we're better off having a skeleton because then we can have a structure that helps you to be able to stand up and to reach things in tall shelves."</p> <p>Eliza: "I don't think you need to reach the shelves. It would be much better if you could slide under doors and floors."</p> <p>Max: "I much prefer having a skeleton because it protects my organs."</p>	Max talks about the three functions of the skeleton.
Teacher observations	<p>Eliza: "Yes, well if you don't have any bones in your body, you won't have any bones to break."</p> <p>Max: "Yeh, but I broke a rib. It's much better than breaking an organ... I much prefer having a skeleton and then I can stand upright and walk around and do lots of things you can't do."</p> <p>Eliza: "You don't need to stand up..."</p> <p>Max: "I think you do otherwise you would be slouching around. Running is much faster. I'd be able to work with my structure. I would be able to hold pencils."</p>	Working scientifically

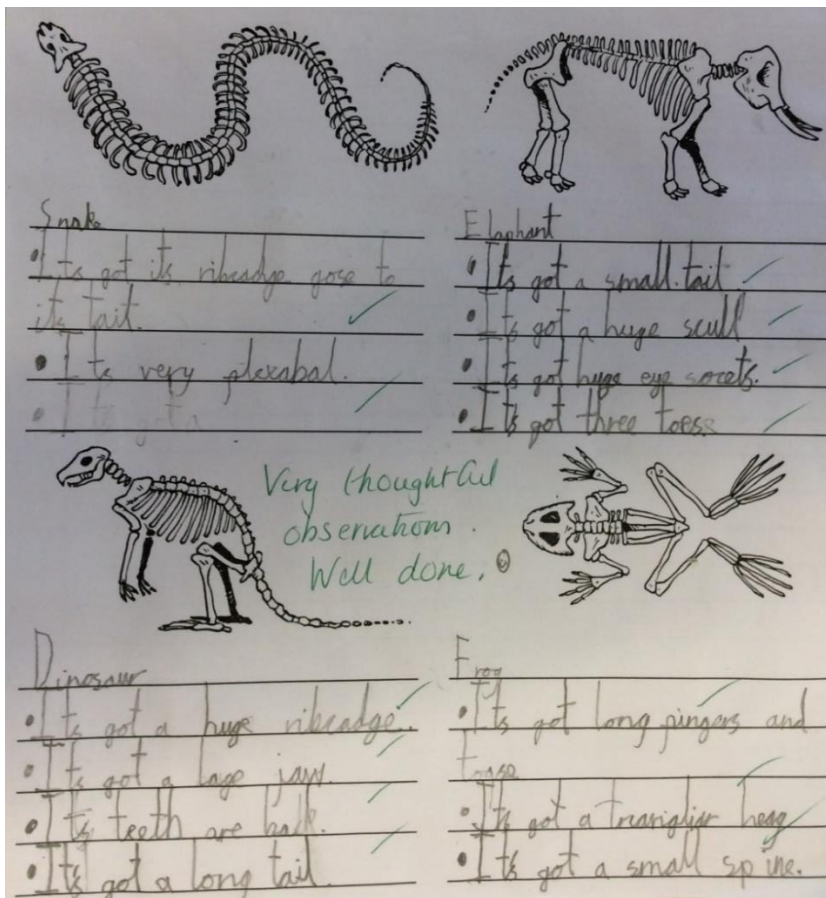
	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were shown photos of animal skeletons and asked to try and name them. They were then given pictures of these skeletons and ask to sort them in different ways. They then swapped tables and tried to work out how another group had sorted.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>Max: "Neck or no neck-mm. I'm not sure about the snake?"</p> <p>Eliza: "Well, I think that is muscle not a skeleton."</p> <p>Max: "No. I'm sure that is a skeleton. But let's put it in the middle as we're not sure"</p> <p><u>When viewing another groups sorting</u></p> <p>Max: "That's a fish. These all go in the water. Giraffe doesn't, porcupine doesn't. Yes, that's it!"</p>		
Teacher observations		Working scientifically
		Max identifies different ways to sort the skeletons.


	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were shown two pictures and, in pairs, they discussed the similarities and differences.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p><u>Image 1</u> “Only this skeleton’s got wings. It’s leg joints go backwards. It’s got a beak. This has two legs and feet.”</p> <p><u>Image 2</u> “Only this skeleton has four legs. The leg joints go forwards. He has hooves.”</p> <p>“They both have bones and joints. They do both have skulls. They both have rib cages. They both have spines. The bones are inside their body. They have eye sockets on the side of their heads.”</p> <p>“It is a duck because that leg bends backwards.”</p>	 	<p>Max compares the two skeletons and names some bones.</p>
Teacher observations		Working scientifically
		Max makes careful observations of the two skeletons in order to make comparisons.

	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were asked to compare four skeletons.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"Well, the elephant and the dinosaur they have big skeletons to keep them up and keep them walking around. The frog goes on land and sometimes his legs can bend up and help him swim. They are in a good position for being on land and in water. The dinosaur is very large and it has a long tail to keep its balance."</p>	 <p>Snake</p> <ul style="list-style-type: none"> • It's got its ribcage goes to its tail. ✓ • It's very flexible. ✓ • It's got... <p>Elephant</p> <ul style="list-style-type: none"> • It's got a small tail. ✓ • It's got a huge skull. ✓ • It's got huge eye sockets. ✓ • It's got three toes. ✓ <p>Very thoughtful observations. Well done.</p> <p>Dinosaur</p> <ul style="list-style-type: none"> • It's got a huge ribcage. ✓ • It's got a large jaw. ✓ • Its teeth are sharp. ✓ • It's got a long tail. ✓ <p>Frog</p> <ul style="list-style-type: none"> • It's got long fingers and toes. ✓ • It's got a triangular head. ✓ • It's got a small spine. ✓ 	<p>Max talks about the differences between skeletons and how they support the animal and help it to move.</p>
Teacher observations		Working scientifically

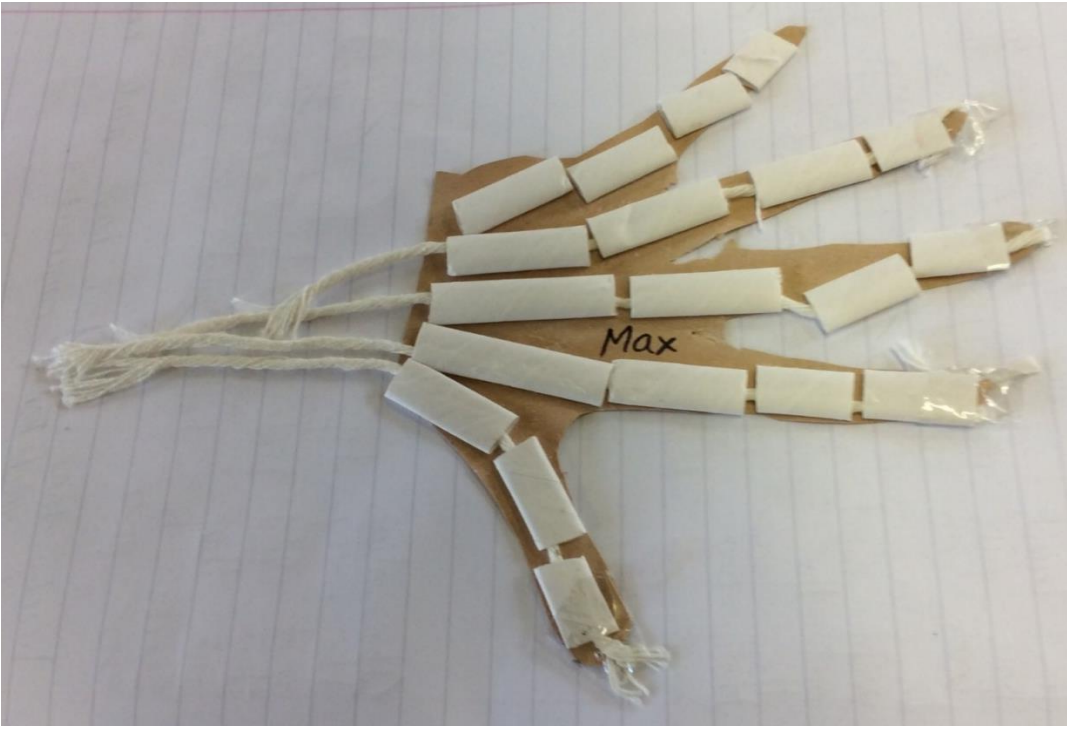
	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were asked to compare four skeletons. To prompt the children to think about how other animals may protect themselves if they do not have a skeleton, they were then asked to sort them according to given headings.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"Some jellyfish sting and the octopus can squirt black stuff to hide."</p>		<p>Max understands that some animals have skeletons for support, protection and movement and that others do not and may protect themselves in different ways.</p>
Teacher observations		Working scientifically




	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils explored the effect of different types of activity on their heart rate. This is not part of the Year 3 curriculum (Year 5 content).			


EVIDENCE OF LEARNING		ASSESSMENT																				
Oral evidence	Examples of work	Knowledge																				
	<div>Exercise and my Body</div> <div>Walt: Find out what effect using our muscles can have on our bodies?</div> <table><thead><tr><th></th><th>Heartbeat in 15 sec</th><th>Heart rate BPM</th><th>Notes</th></tr></thead><tbody><tr><td>Before</td><td>27</td><td>108</td><td>I was calm and normal and resting</td></tr><tr><td>Warming up</td><td>30</td><td>120</td><td>My heart is starting to beat faster because I've been moving more</td></tr><tr><td>Heavy Exercise</td><td>50</td><td>200</td><td>I've done lots of exercise so my heart is beating really fast</td></tr><tr><td>Cool Down</td><td>28</td><td>112</td><td>I've done a cool down so I don't have such fast heart beat and</td></tr></tbody></table> <div>We found out that when our muscles work hard</div> <div>The heart beat is becoming stronger and faster. I am very hot and very sweaty and my breathing is not normal.</div>		Heartbeat in 15 sec	Heart rate BPM	Notes	Before	27	108	I was calm and normal and resting	Warming up	30	120	My heart is starting to beat faster because I've been moving more	Heavy Exercise	50	200	I've done lots of exercise so my heart is beating really fast	Cool Down	28	112	I've done a cool down so I don't have such fast heart beat and	
	Heartbeat in 15 sec	Heart rate BPM	Notes																			
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Teacher observations		Working scientifically																				
		Max measures and records his pulse rate and uses this to write simple comparative statements.																				

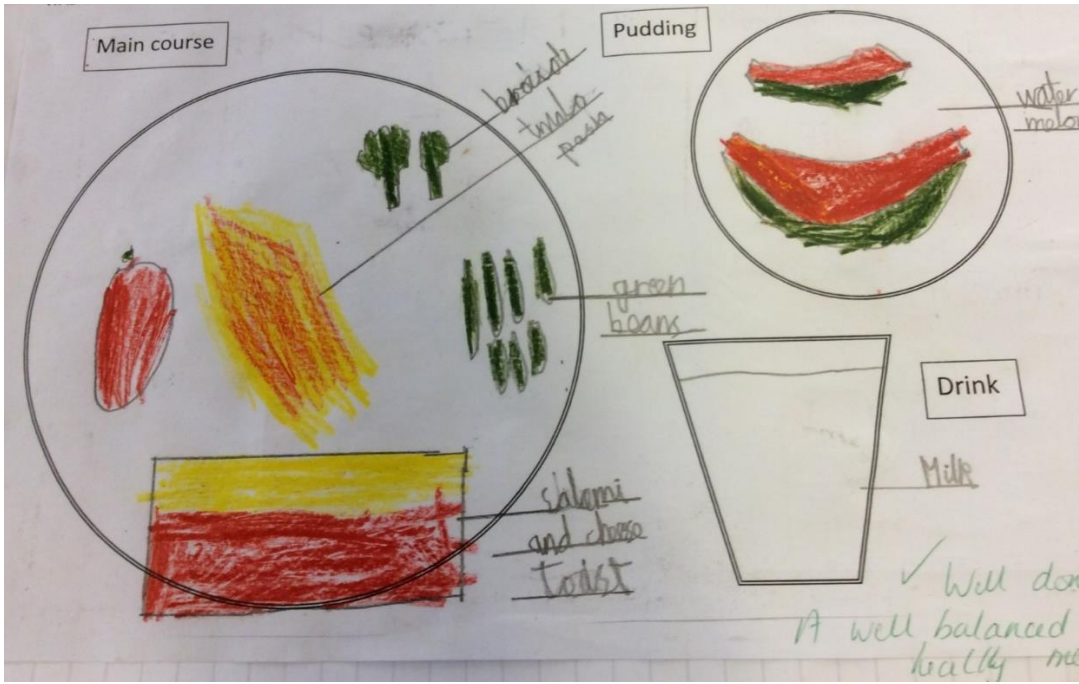
	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	After exploring how their fingers move and looking at the class skeleton, the pupils made a model of the bones in their hand.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"The string is the ligaments. They help the joints move where there are gaps in the bone. You also have muscles. We did not put these in. The muscles loosen and tighten. They work together. That's why I think there are more muscles than bones, so they can move the bones."</p>		<p>Max has a secure understanding that the muscles and bones work together to enable movement.</p>
Teacher observations		Working scientifically

	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 			
	Description of activity			
	The pupils were shown the same images of a snail, worm and mouse, as at the start of the learning, and asked to discuss which they felt was the odd one out.			


EVIDENCE OF LEARNING			ASSESSMENT
Oral evidence	Examples of work		Knowledge
<p>"I would probably say the mouse now because it has a backbone and the others don't.</p> <p>"Actually, it could be all of them because: a worm has no protection; a snail has a shell protection outside; and the mouse has a backbone."</p>	worm		Max now refers to the skeleton of the mouse and the shell of the snail giving protection.
Teacher observations	snail		Working scientifically
	mouse		

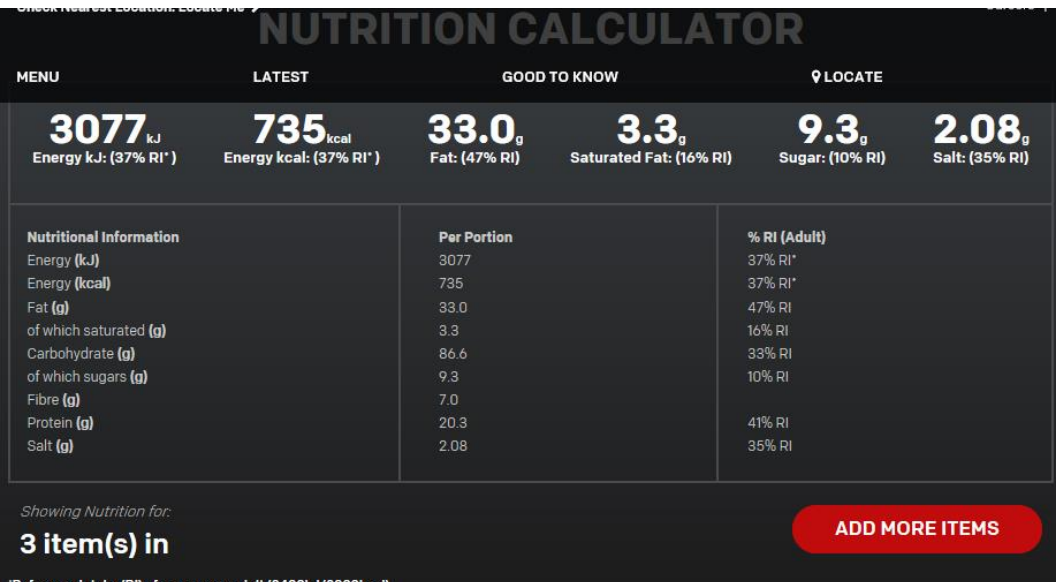
	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 			
	Description of activity			
	To recap on prior learning in Year 2, the pupils were asked to draw a balanced meal.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
		In his meal, Max includes meat, dairy products, bread, pasta and vegetables. He does not include sweet or overly fatty foods.
Teacher observations		Working scientifically


	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 			
	Description of activity			
	The pupils were asked to discuss which food item they thought was the odd one out. The pupils then looked at the nutrient information on packaging.			


EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"The sausage roll is not very healthy. There is no salad with it. It is just meat and pastry.</p> <p>"Quaker Oats so Simple has these nutrients:</p> <ul style="list-style-type: none"> 3.3 fat 2.0 saturated fat 8.9 sugar 0.20 salt. <p>"I don't think it's all that healthy because it's got a lot of sugar in it."</p>	   	<p>Max is becoming familiar with the nutrients contained in different types of food.</p>
Teacher observations		Working scientifically
		Max reports orally on his findings from his research.

	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 			
	Description of activity			
	Using the McDonald's nutrition counter, the pupils were asked to choose a meal that they thought an adult might select.			


EVIDENCE OF LEARNING		ASSESSMENT																														
Oral evidence	Examples of work	Knowledge																														
<p>"I chose a chicken burger, fries and a fruit shoot. All the nutrients are quite high compared to what you should eat in a meal. The fat is the highest."</p>	 <p>NUTRITION CALCULATOR</p> <p>MENU LATEST GOOD TO KNOW LOCATE</p> <p>3077 <small>kJ</small> Energy kJ: (37% RI*)</p> <p>735 <small>kcal</small> Energy kcal: (37% RI*)</p> <p>33.0 <small>g</small> Fat: (47% RI)</p> <p>3.3 <small>g</small> Saturated Fat: (16% RI)</p> <p>9.3 <small>g</small> Sugar: (10% RI)</p> <p>2.08 <small>g</small> Salt: (35% RI)</p> <table border="1"> <thead> <tr> <th>Nutritional Information</th><th>Per Portion</th><th>% RI (Adult)</th></tr> </thead> <tbody> <tr> <td>Energy (kJ)</td><td>3077</td><td>37% RI*</td></tr> <tr> <td>Energy (kcal)</td><td>735</td><td>37% RI*</td></tr> <tr> <td>Fat (g)</td><td>33.0</td><td>47% RI</td></tr> <tr> <td>of which saturated (g)</td><td>3.3</td><td>16% RI</td></tr> <tr> <td>Carbohydrate (g)</td><td>86.6</td><td>33% RI</td></tr> <tr> <td>of which sugars (g)</td><td>9.3</td><td>10% RI</td></tr> <tr> <td>Fibre (g)</td><td>7.0</td><td></td></tr> <tr> <td>Protein (g)</td><td>20.3</td><td>41% RI</td></tr> <tr> <td>Salt (g)</td><td>2.08</td><td>35% RI</td></tr> </tbody> </table> <p>Showing Nutrition for: 3 item(s) in</p> <p><small>*Reference Intake (RI) of an average adult (8400kJ/2000kcal)</small></p> <p>ADD MORE ITEMS</p>	Nutritional Information	Per Portion	% RI (Adult)	Energy (kJ)	3077	37% RI*	Energy (kcal)	735	37% RI*	Fat (g)	33.0	47% RI	of which saturated (g)	3.3	16% RI	Carbohydrate (g)	86.6	33% RI	of which sugars (g)	9.3	10% RI	Fibre (g)	7.0		Protein (g)	20.3	41% RI	Salt (g)	2.08	35% RI	Working scientifically
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Teacher observations		<p>Max reports orally on his findings from his research.</p>																														


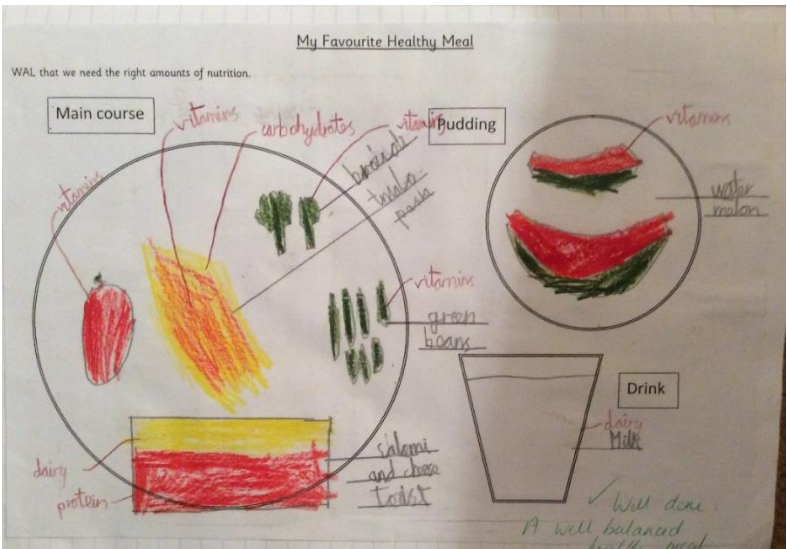
	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 			
	Description of activity			
	The pupils were then asked to try and find a healthier alternative.			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>“This time I chose a grilled chicken salad, an apple and grapefruit bag and water. This is much better as it has lots of protein which you need but not too much sugar or fat.”</p>		<p>Max is aware that he needs a range of nutrients, but they need to be in the right quantity.</p>
Teacher observations		Working scientifically
		Max uses his knowledge to predict a healthier meal.

	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 			
	Description of activity			
	As part of their learning in D&T, the pupils made sandwiches.			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>Max: "My sandwich has bread to give you carbohydrates. Tuna to give you protein and cucumber to give you vitamins and water."</p> <p>Teacher: "What else can you tell me about nutrients?"</p> <p>Max: "Protein is like meat, fish, eggs and other non-dairy protein. Carbohydrates are like bread and muffins. Fats are not good for you. You get vitamins from fruit and vegetables, but I also have tablets. If you look at the packages, it says Vitamin C helps fight illness. Oranges give you a lot of Vitamin C. I used to like eating the fizzy orange tablet."</p>		<p>Max talks confidently about the different nutrients and the types of food that contain them.</p>
Teacher observations		Working scientifically

	Year	3	Topic	Animals, including humans
	Focus of assessment (National Curriculum statements)			
	<ul style="list-style-type: none"> Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 			
	Description of activity			
	The pupils were asked to discuss the same three images they discussed earlier in the learning. They were asked to annotate their balanced meal from the start of the learning to show what nutrients it contained.			

EVIDENCE OF LEARNING		ASSESSMENT
Oral evidence	Examples of work	Knowledge
<p>"Chicken salad is the odd one out because it has no carbohydrates."</p>		<p>Max shows good recall of the nutrients in food. He is secure on this statement.</p>
Teacher observations		Working scientifically
<p>Dairy is used here instead of protein.</p>		



Overall summary

Secure

Max engages in a range of activities that help him to learn the names of some bones in the skeleton. He understands the three functions of the skeleton and talks about these in a range of different contexts.

He explores the nutrients contained in different food items and understands that it is important to get the right amount of each nutrient.



Acknowledgements

- *PlanBee worksheet page 3*
- McDonalds nutrition counter pages 18 and 19