

Hawkesley Church Primary Academy

'let your light shine'
Matthew 5:16



Science Curriculum

Curriculum impact in 'Animals, including Humans'

Progression in

Animals including humans	<p>Explore the natural world around them, making observations and drawing pictures of animals and plants.</p> <p>Know some similarities and differences between the world around them and contrasting environments, drawing on their experiences and what has been read in class.</p>					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Curriculum Coverage	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify and name a variety of common animals including fish, amphibians, reptiles, <u>birds</u> and mammals - identify and name a variety of common animals that are carnivores, <u>herbivores</u> and omnivores - describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, <u>birds</u> and mammals, including pets) - identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - notice that animals, including humans, have offspring which grow into adults - find out about and describe the basic needs of animals, including humans, for survival (water, <u>food</u> and air) - describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify <u>that animals</u>, 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 - identify <u>that humans</u> and some other animals have skeletons and muscles for support, protection and movement. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - describe the simple functions of the basic parts of the digestive system in humans - identify the different types of teeth in humans and their simple functions - construct and interpret a variety of food chains, identifying producers, <u>predators</u> and prey. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - describe the changes as humans develop to old age. - describe the differences in the life cycles of a mammal, an amphibian, an <u>insect</u> and a bird (Y5 – Living things and their habitats) - describe the life processes of reproduction in some plants and animals (Y5 – Living things and their habitats) 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> - identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood - recognise the impact of diet, exercise, drugs and lifestyle on the way their <u>bodies</u> function - describe the ways in which nutrients and water are transported within animals, including humans. - describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, <u>plants</u> and animals (Y6 – Living things and their habitats) - give reasons for classifying plants and animals based on specific characteristics (Y6 – Living things and their habitats)

Whole School

Nursery



Nursery expectation: Explore the natural world around them, making observations and drawing pictures of animals and plants.

Reception



Reception expectation: Explore the natural world around them, making observations and drawing pictures of animals and plants.

Year 1

23.04.21

LO To say which part of the body is associated with each sense.

- To identify the body parts
- To link each sense to a body part
- Name one thing for each sense

Big Knowledge
What body part is this?
hand

Do Now
Order pictures of a human during their life.

Vocabulary

touch	see	taste	smell	hear
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Exit ticket

Diagram showing connections between senses and body parts:

- touch - hand
- see - eyes
- taste - tongue
- smell - nose
- hear - ears

Checklist:

- taste
- touch
- smell
- sight
- hear

LO

perfume, head, crissly, Miss Kearns, the board, blue, legs

Smell, hear, touch, taste, see

people, running, talking

Today we explored the 5 senses as a class. Here are our findings.

Today we used our senses to touch, smell, see and hear. As you can see, we most enjoyed the taste part. We tasted food we haven't before and ate sour sweets and lemons!

I could see the slaw
 I could feel the bag
 I could smell the sour lemon
 I could taste the strawberries

Dear Miss Goody

We have created some sensory boards for your children. We have added different materials all around the 5 senses.

We used:

- Bright stickers and foil to look at
- Pom poms to feel
- Zip to zip and unzip
- Velcro and feathers to touch

We made some fantastic boards and we can't wait for you to see our designs.

Thank you for letting us make these boards to support our 5 senses.

Year 1 at Hawkesley Church Primary

Year 1 expectation: identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

Year 2

Retrieval focus

Lesson 1

Exercise
activity done to keep the body or mind strong or to make them stronger.

Healthy
Being free from sickness; well; fit.

Hygiene
The practice of keeping clean to stay healthy and prevent disease.

Thursday 16th September 2021

LO: To describe how exercise is important to the human body.

Success criteria

- Define exercise
- Discuss types of exercise
- Complete exercise
- Record findings

Do Now





Range Knowledge
Know why exercise, a balanced diet and good hygiene are important for humans.

Range Knowledge Retained
A bird has...

- feathers and warm blood
- scales and cold blood
- scales and gills

Exit Ticket

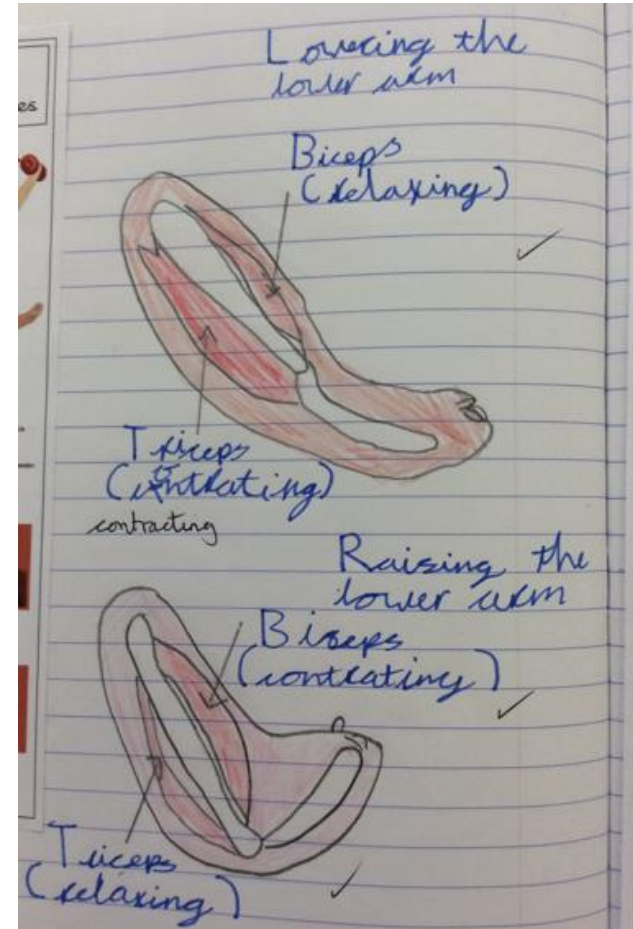
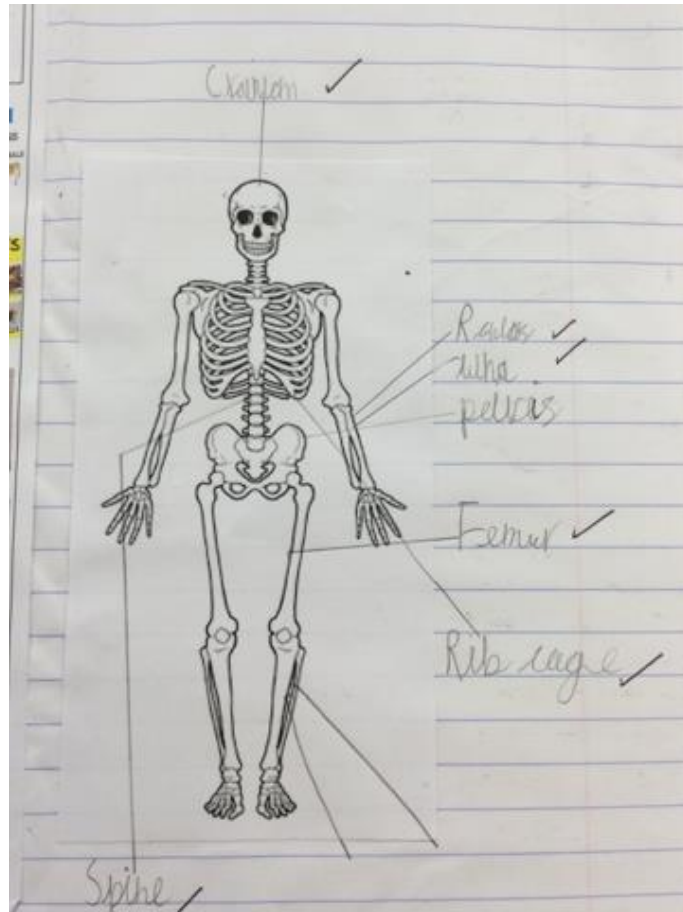
As well as eat right, how else can a person try to keep healthy?
Exercise

Type of exercise	My score
Running on the spot 	27
Jumping on the spot 	47
Standing on one leg 	7
Star jumps 	51



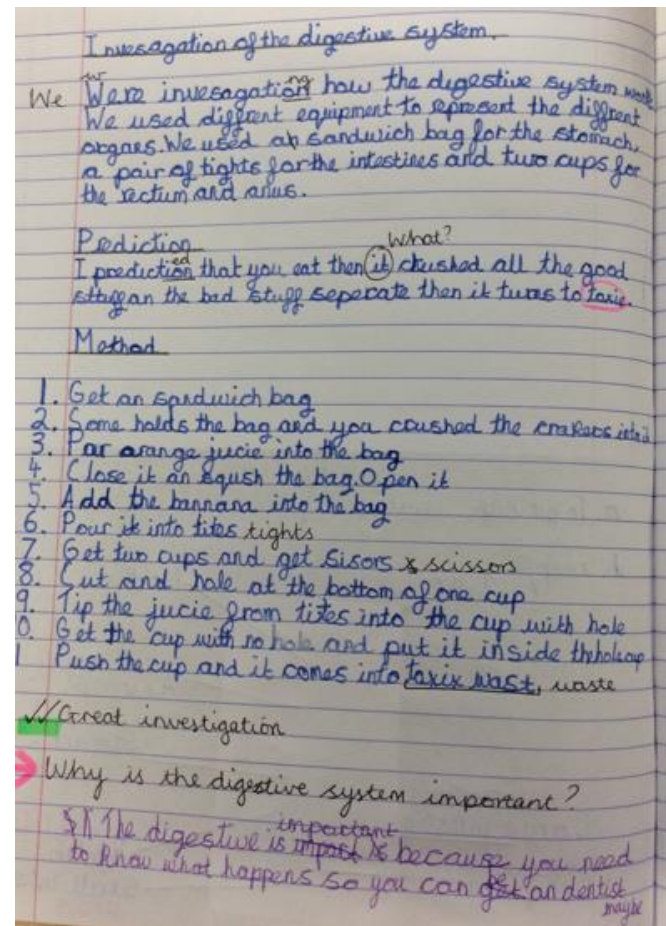
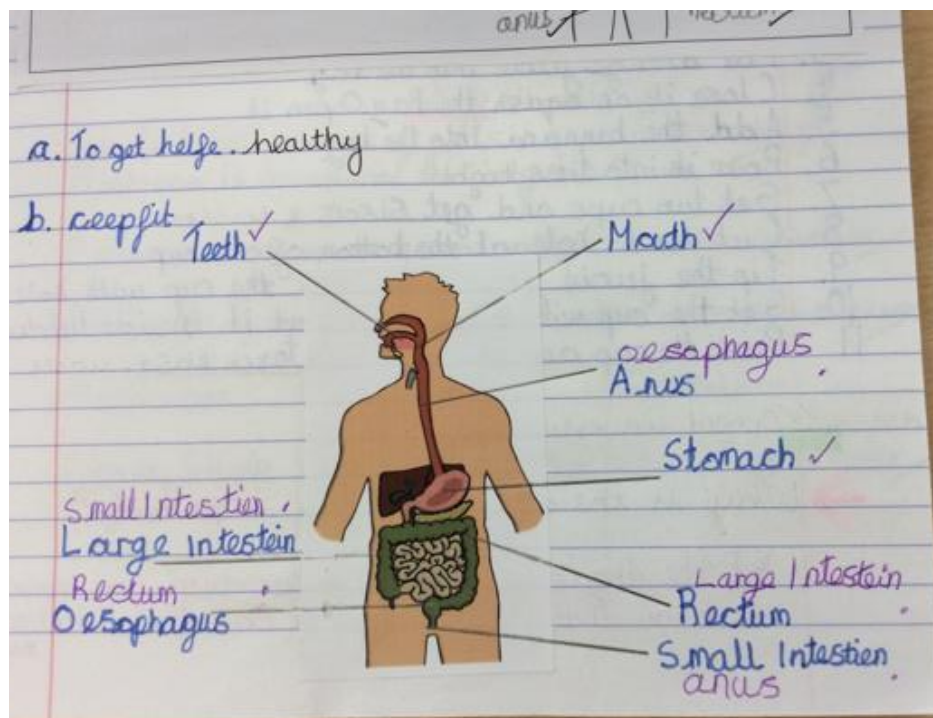
Year 2 expectation: describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Year 3



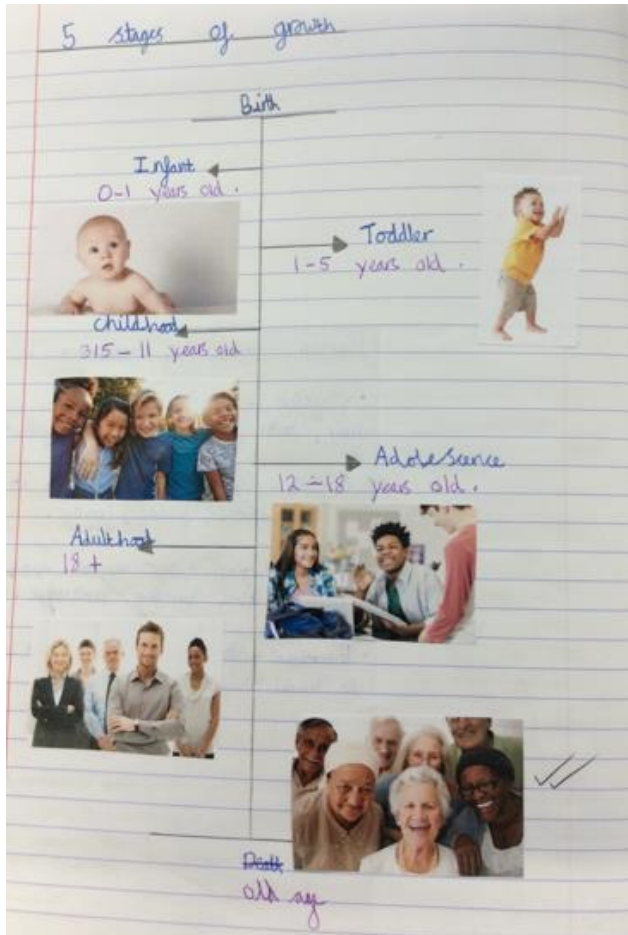
Year 3 expectation: identify that humans and some other animals have a skeletons and muscles for support, protection and movement.

Year 4



Year 4 expectation: describe the simple functions of the basic parts of the digestive system in humans.

Year 5



Child development investigation

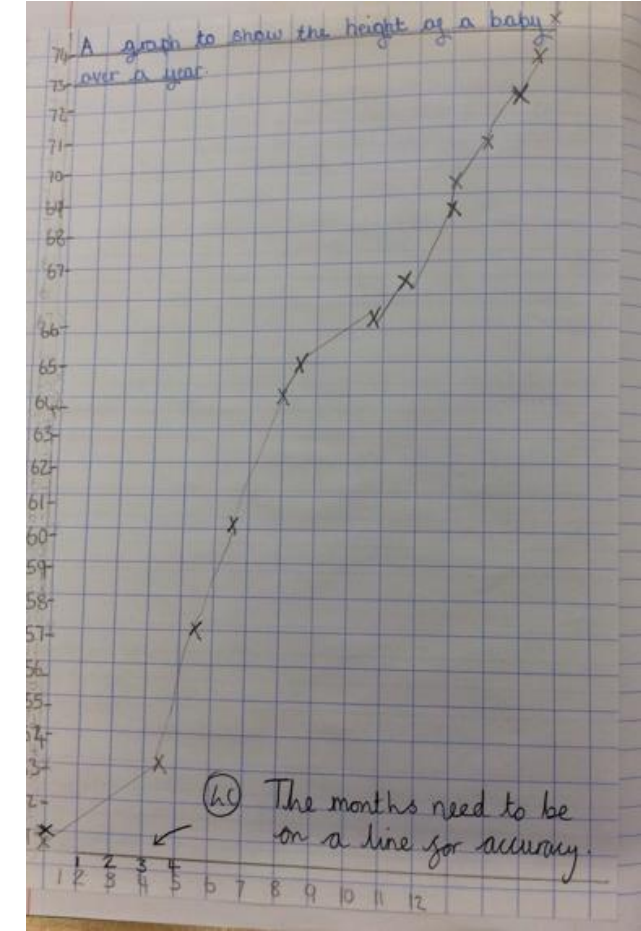
In science we have looked at our baby photos and compared, discussed and analysed the changes we can and can't see.

Physical changes	other developments
hair - the colour has changed alot	Social - talk, communicate Speak with others Psychological - Knowledge
Eyes - they've changed the colour a little bit	Emotional - <u>What emotional developments do we make?</u>
- adult teeth grow when your older.	teeth Crying
height and weight - Ears.	

before we are born we develop and grow in the womb. These stages are:

- Embryo - 0-8 weeks ✓
- Fetus - 8-40 weeks ✓

What does gestation mean?
it means when an animal is pregnant



Year 5 expectation: describe the changes as humans develop to old age.

Year 6

The Human Heart

Vena Cava
Main vein takes blood to the heart

Aorta
Main artery, taking blood away

Right Atrium

Left Atrium

Right ventricle

Left ventricle

Components of Blood
 Red Blood cells = delivers oxygen
 White Blood cells = For protection
 Blood Platelets = For repairing
 Plasma = liquid for transporting

Through a microscope

Red blood cells

Platelets

White blood cells

To the naked eye

Our 'blood' experiment

What we explored:
 We have learnt about the 4 components of blood and re-created this.

Before we mixed the ingredients you could see each part of the 'blood'.

After we mixed it, it all acted like one.

Before

During

After

How is blood transported around our body? Veins and arteries transport blood.

1.1 To explain the structure and function of human heart and its associated blood vessels and understand how age, fitness & activity can be improved.

1.2 What is the purpose of pulmonary veins and arteries?
 How do the hearts 4 valves work?
 How does age/fitness affect the heart?

1.3 Name three bones in the human skeleton:
 Head bone = Skull ✓
 Chest bones = Ribs ✓
 Hip bone = Pelvis ✓

1.4 What a piece of equipment would you need to make the circuit above?
 Battery, light bulb, Switch, wires. ✓
 What needs to happen for the bulb to light up?
 You need to close the switch. ✓
 What could you add to make the bulb shine brighter?
 Another battery. ✓

1.5 What part of the body do the pulmonary arteries and veins lead to?
 Lungs and the lungs. ✓
 What is taking in?
 They keep blood going one way ✓
 What does the blood leave the heart a second time and is pumped around the whole of the body when it is the pulmonary?
 The blood is carrying oxygen. ✓

Pulmonary Arteries and Veins
 The vessels of the pulmonary circulation, which means they are responsible for carrying the oxygenated blood to the heart from the lungs and carrying the deoxygenated blood from the heart to the lungs.

The Heart Valves
 Blood passes through a valve before leaving each chamber of the heart. The valves prevent the backward flow of blood. Valves are actually flaps (leaflets) that act as one-way valves for blood coming into a ventricle and one-way outlets for blood leaving a ventricle.

The Heart - Recap
 The heart is a muscle which pumps blood around the body.
 Veins = Carry blood to the heart
 Arteries = Carry blood away from the heart

How do valves work? They flap up and down, they flap up and down but only let blood through one way.

Year 6 expectation: identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.