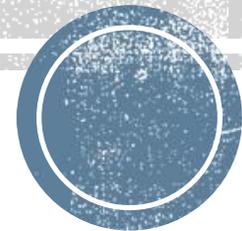


Systems and Signals

By Natalie Widdal



Context

As a nursery school, we value the opportunities we can provide for the children that foster conditions of collaborative learning that arises out of the curiosities and fascinations of the children. We see the children as capable and confident learners, who alongside each other can enquire, question and discover learning themselves, rather than being instructed or told. It is through this lens of active enquiry that educators generate long term projects that promote opportunities for children's creativity and critical thinking that enables children to express and develop theories about the world around them.



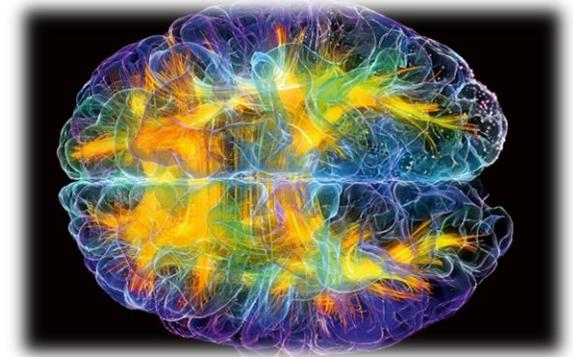
Project 2018/2019

This year, the enquires of each group began as an investigation of the human body as this is an area of particular fascination for many children. We may begin with a shared starting point, however, each of the learning groups developed their projects in their own unique ways based upon the children's own specific interest and motivations. What follows is an account that holds aims to both describe the learning process of each groups experiences whilst also offering opportunity to reflect on what we as educators have learnt about how the children learn, and the ways in which best to support the growth of their thinking and the expression of their ideas.



Introduction

Working with an range of materials and languages of expression supports the children's thinking and theory making. Observing the children's interactions with the human skeleton, visual pictures and digital media enabled me to find out their thoughts and ideas. This project provided the opportunity for two different lines of enquiry to take place.



Making connections with the Skeleton

“Maybe the red bit is the blood and can breathe lets see where the red bit goes it stays forever”.



“Them the same like my bone”



“It’s the same, it’s the same”.



“I can see things inside us”

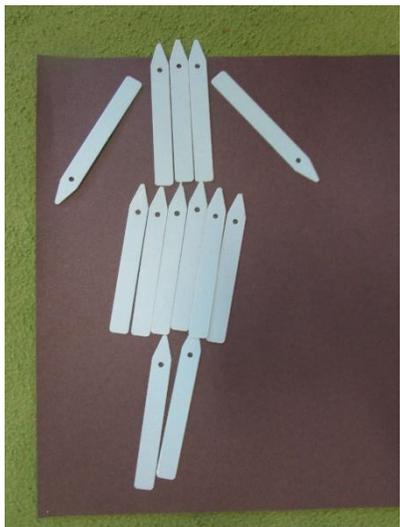


“I can see his back his got yellow worms on. I’ve got my back too”.

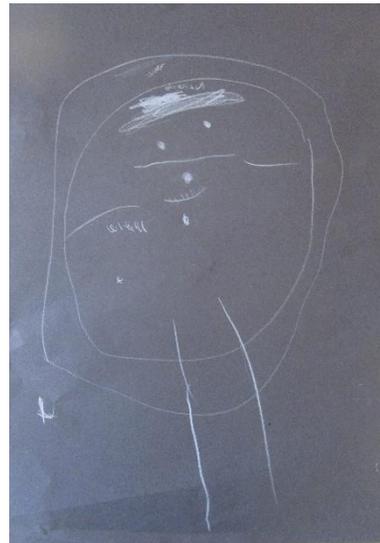
Voicing ideas through drawing and loose parts

Children were given the opportunities to draw and create a skeleton, by being offered a range of different sized paper, pens/pencils and a variety of loose part materials.

Loose parts are captivating, open-ended and mobile objects that are intriguing and fascinating for children. Introducing these two materials alongside the skeleton enabled the children to make their ideas visible and show their interests.



“That’s the head, the dress, it’s a lady dress like my mommy, that’s the arms and legs”

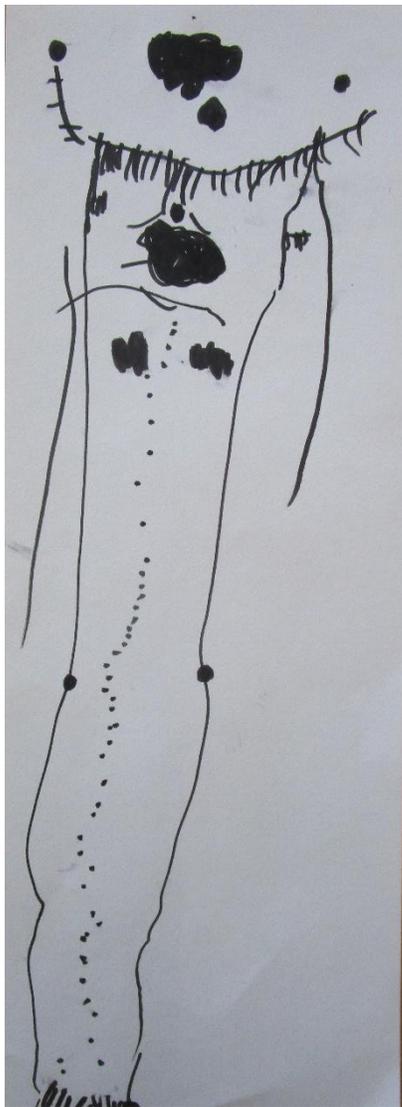


“This is the teeth and it’s eating some food, the food moves to music and to our brain in the head to keep us warm”.

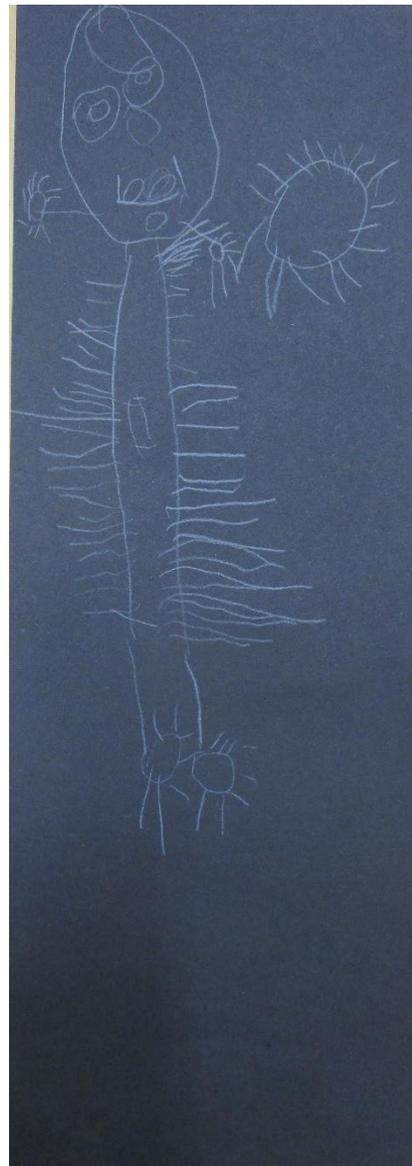


“Its got eyes, it’s got two arms and feet and lots of bones”.

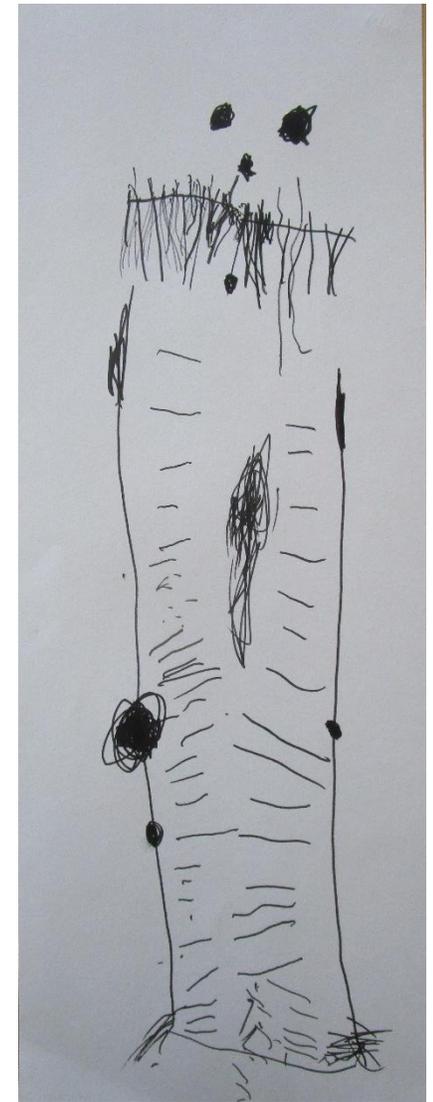




Through the children's drawings it was evident that they had deepened their knowledge and started to use scientific language when describing parts of the skeleton such as skull, teeth, ribs, knees, toes and fingers and eyeballs.



“It's a skeleton those are the ribs in our bodies they make us wiggle....them the bones to make us move...that's the skull and that's our brain but we haven't met our brains before”.



Using digital media

Digital media provided opportunity for the children to interact and view skeletons in a different way. The children watched a short clip of the Disney film 'Coco' and this enabled the children to begin to pose new questions.

**“They’re not real skeletons
they’re just face paint”**

**“How do they talk the
skeletons?”**



“It looks a bit like tattoos”

**“They got painted face
with patterns on”**

“They look like pirates”

**“That’s not a skeleton
that’s just someone
dressed and drawn on
their face”**



Following on from the digital clip, the children were offered an outline of a skull and using a selection of loose parts they designed their own interpretation of a patterned skull, thinking carefully about what shapes they may need to use. The children created a range of visual provocations of what could be inside the skull, beginning to make links with the possibilities of it being a brain and commenting on the colours they had seen.



“This is the rainbow brain and a disco brain”

“My brain is inside my skull I can feel it, it can move”



“Our brain is inside and outside”



“It’s all colourful”



The children expressed their own ideas and interpretations by being offered their original drawings of their skeletons using water colours to add detail. Through their dialogue the children began to comment on the brain, blood and heart.



“That’s the brain in the skeleton”



“The red is for the brain and teeth, that’s the heart [it] makes the skeleton run and dance and goes pump, pump, pump, pumps all them colours and blood around the body”



“Its got ribs and blood in the head. It pumps out and pumps out again”





The children's theories

The children were starting to express their ideas through their drawings, discussions, patterns and paintings. They began to articulate strong ideas about the brain and the importance of the blood.



“Look, I can see the blood in the skeleton. It’s red blood”



“That’s all the colours in our brain to keep us healthy”



“The blue is for the brain, it’s for the living boy it keeps us alive”

Using a range of media, colour was a key factor in the project and enabled two themes to emerge.



What's a brain?

“our brain is inside us”

“it keeps us healthy”

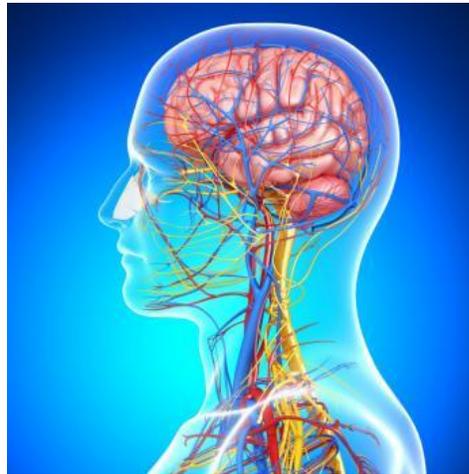
“keeps us to remember, I remember when I went to Kingswood”

“it helps us to talk and be nice”

“our brain make us dance”

“our brain helps to learn”

“my brain is working ‘cus it told me something....maybe when we close our eyes it tells us to go to sleep”



What is blood?

“blood is in my body”

“blood keeps us alive”

“lots of blood help you not to die. Blood in the middle goes all around us”

“blood is red”

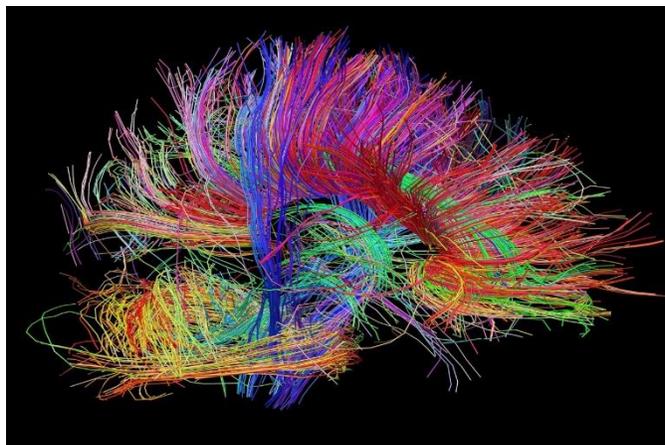
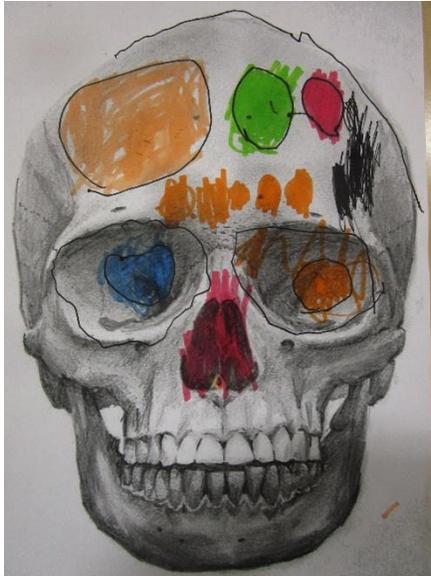
“makes us strong”

“it moves”



Responding to the children's enquiries empowered the children to take control of the project enabling them to deepen their thinking around the brain and the blood.

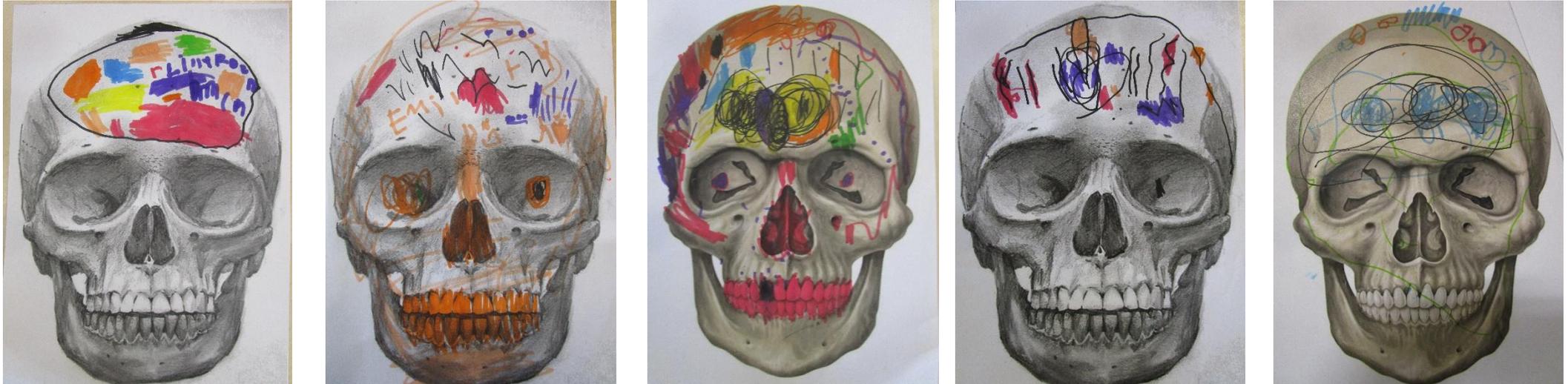
The children were offered visual pictures of a skull and an outline of a large human body alongside visual images. Children thought critically about what happens inside our brain and the importance of the blood inside the body.



Making links

The children showed their thinking on how the brain works through their drawings using different marks such as circles, lines, zigzags, writing and adding a range of colour.

“Our brain tells us all the good things and all the bad things. Them [are] all the phones in my head and tells me all the messages. The colours tell us to eat and walk”.



“[There are] all these different colours. The pink make it run, peach, makes it walk and blue makes us sit down and the green makes us learn”.



Offering the children visual images of the circulatory system generated discussions around the red and blue blood and thoughts of other organs in our bodies.

As a group we created our own template of the human body and the children represented their ideas through different marks.

Black represented the bones.

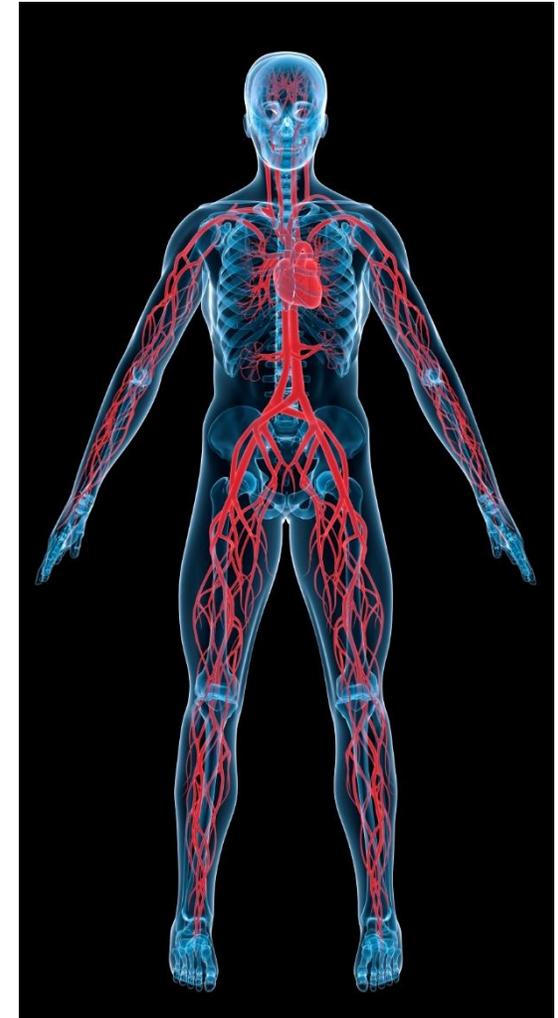
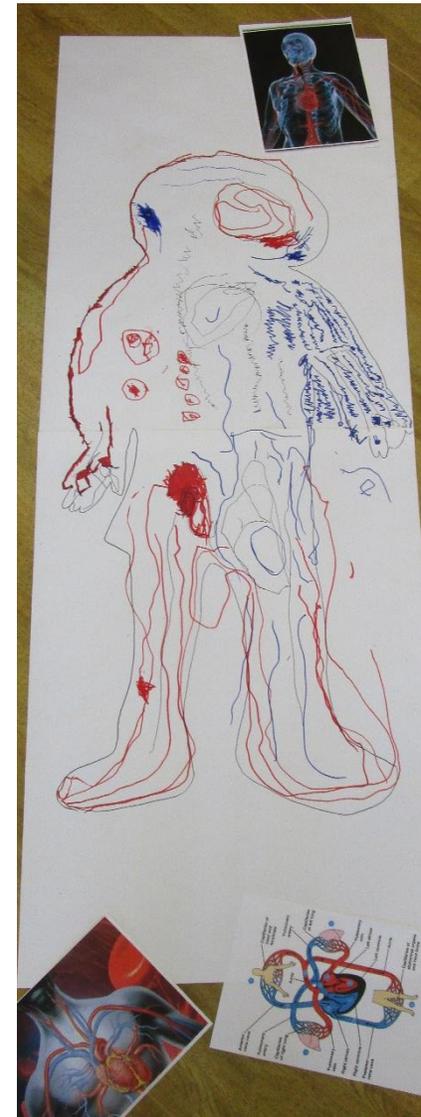
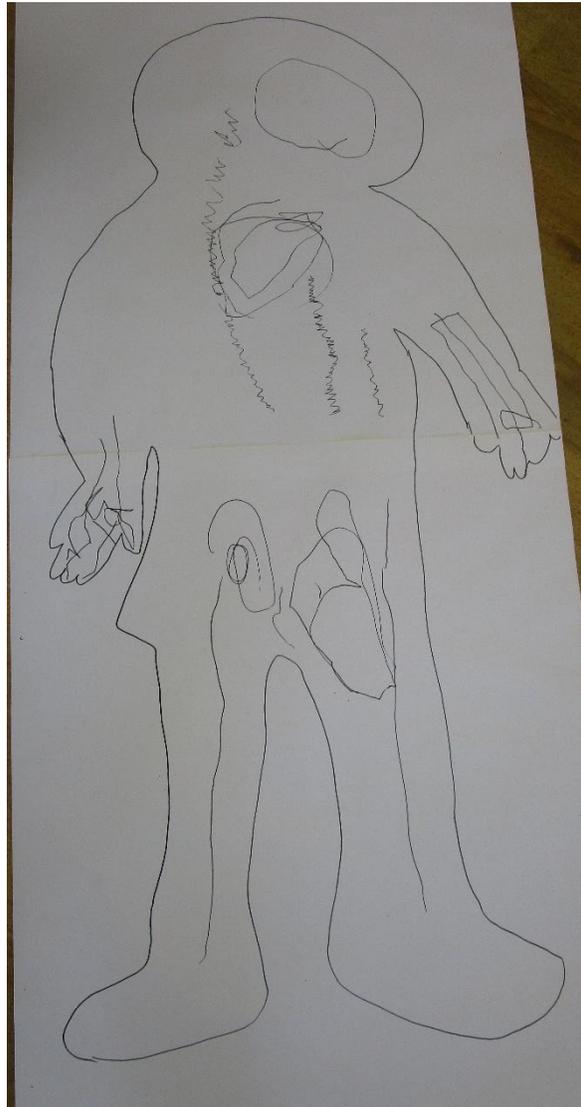
“That’s the skull”

“We have big bones and small bones”

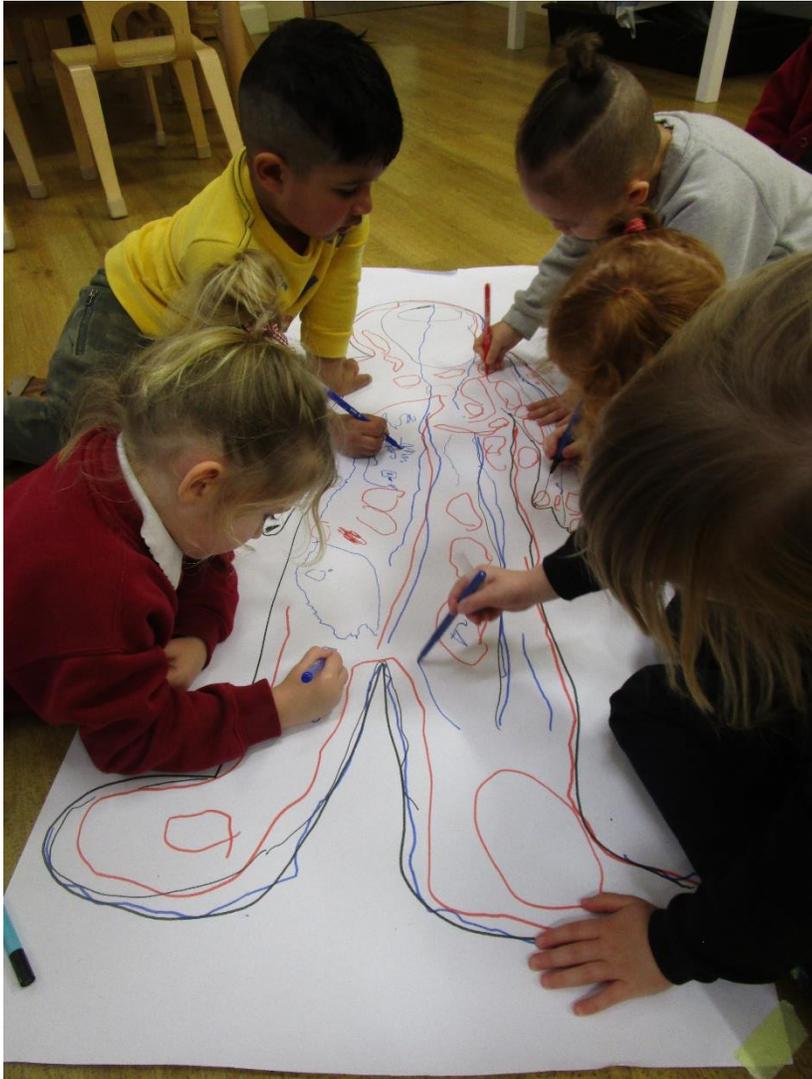
“The red is for the blood and it keeps us alive”

“It goes up and down into our head and down”

“The blue blood makes us die”



Working collaboratively on the human body provided the children with rich opportunities for learning. Through discussions, they shared their individual knowledge, contributed to each others ideas and had the confidence to challenge one another if they didn't agree.



From their marks it was evident they understood that blood travelled around the body.



Using the 'human body' app enabled the children to discover other organs and prompted new questions.

“What’s this?”

“I don’t know”

“It’s got red and blue like the blood”.

Linking their thoughts, enquiries about the heart began to take place.



Watching a video clip of the heart supported the children to make possible connections between their own bodies and the blood.

“Have we got a heart?”

“Yeah, its inside us”

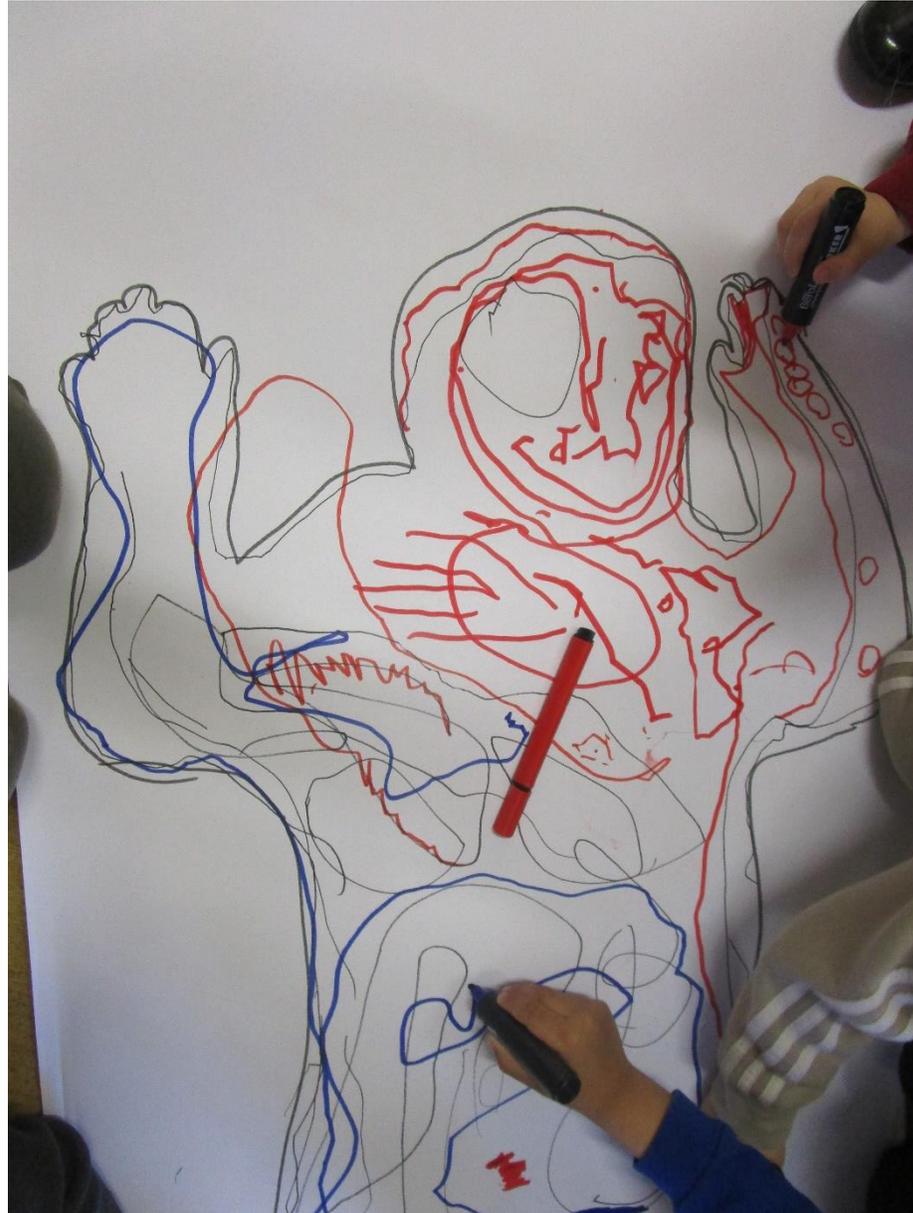
“Our heart goes pump, pump, really fast when we run”

“What does it look like?”

“ I don’t know maybe like a love heart”

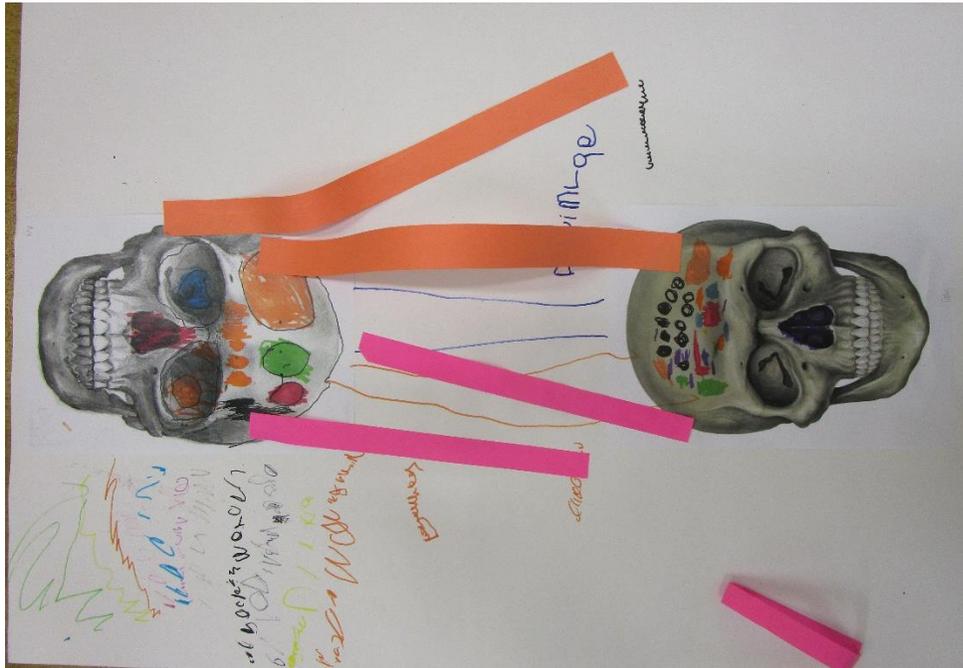
“It keeps us alive and not be poorly”

They started to understand the role of the heart and how the heart functioned.



Reflecting on the children's comments around how the brain functioned provided new learning opportunities. They were making the connection between the brain and the possibilities of how it communicated.

Using their original drawings the children used colour strips of paper to show their methods of how the brain worked.



“My message says do you want to come to my house Lilly?” “ That’s my writing, it says you’ll have to ask my mommy first when she comes to pick me up”.





Over time the children began to make their strips 3D as a way of showing how a message travels between the brain and how it connects to another brain. They also drew pictures to represent family members and added marks to show ways of communicating.



The children became fascinated with the three different blood colours they had observed and the bond they had with the heart. They began to construct their own theories around the red, blue and yellow blood systems.

“The red blood keeps us alive and not to die”

“If we didn’t have blood we would be poorly”

“Red blood makes us better”

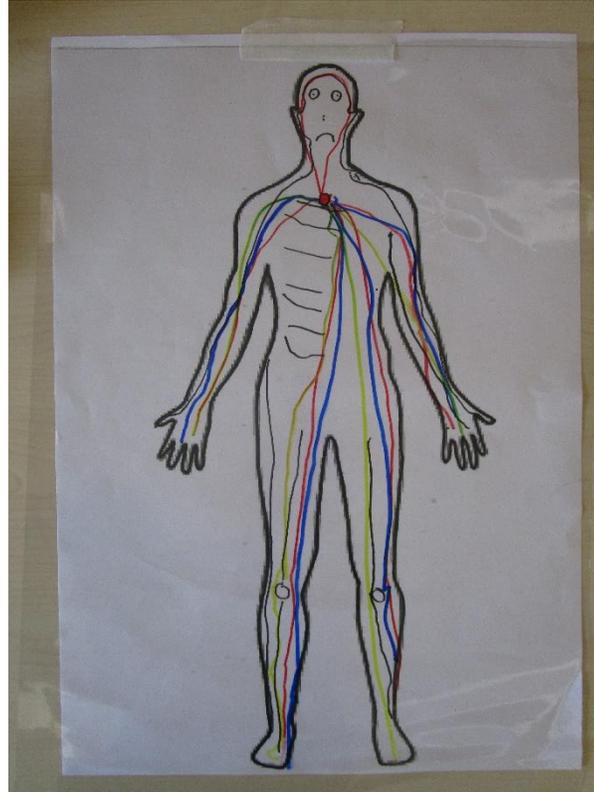
“It comes out the heart and to the bones and all around us”

“Blue blood makes us die”

“It races the red blood”

“It makes us poorly”

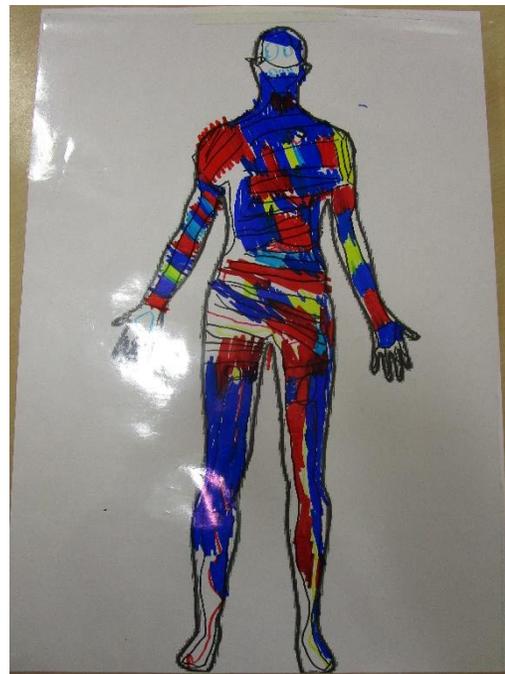
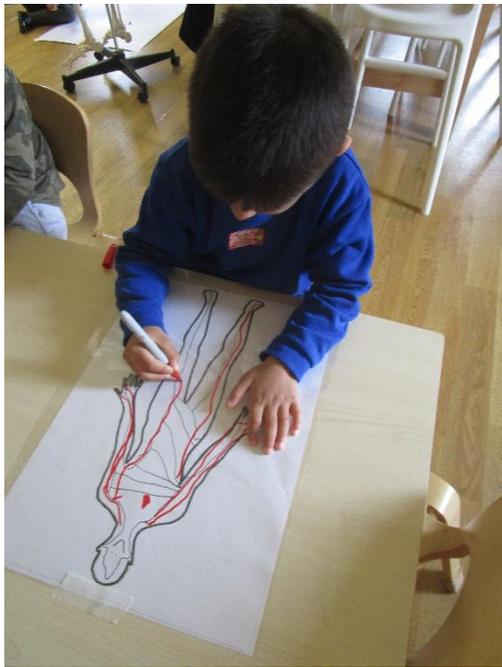
“We cant see the blue blood”



“Yellow blood makes us breath and move our bodies”

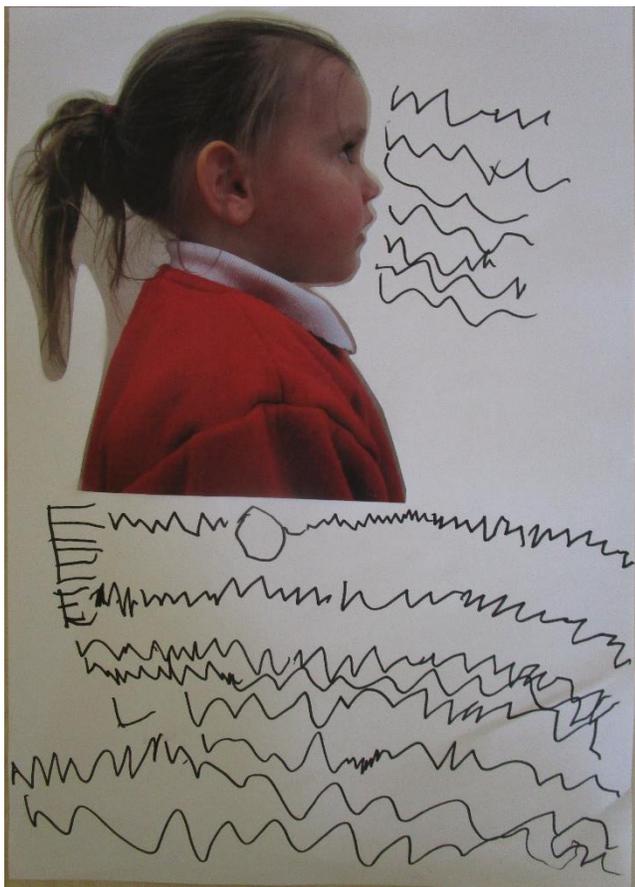
“Yellow blood helps the blue blood”





Communication became an integral part of our project and together through discussions we clarified as a group what a message meant and considered the ways of sending a message.

“A message; it’s to tell someone we love them, ask some questions about what they like, talking to them and we can write a message to people in a different country. But we need to remember to put loves and kisses at the end”



“We can phone people”

“Mommy sends a message on her phone pressing the buttons”

“A message in a card for poorly people and a message to say we love you”

“You get a message in a post box”

“I have an invitation for my friends to come to my birthday party”



To conclude our project the children decided to create a message for the new children starting in September.

Dear the new children,

This is a message for you telling you all about nursery.

- Nursery is a happy place and you will have lots of fun
- You will be celebrating your birthdays
- You will say bye to your mommies, daddys and nannies and grandads but dont worry they will be back to get you
- Nursery is so lovely you will be able to play outside have some snacks
- you can play in the mud kitchen
- you can play in the magnets and lego
- you can build
- you can paint
- You have two rules to follow be kind and be a good listener
- You will make lots of friends
- you can be the helper

Love from Rosie
Mason
Emilia
Liam
Rose
Dora
Ella
Noah
Leo
Mia
Oliver
Sophie
Thomas
Charlotte
Lucas
Mia
Noah
Leo
Mia
Oliver
Sophie
Thomas
Charlotte
Lucas



Children's learning opportunities

This project has provided rich opportunities for enquiry where adults and children learn together.

Children made connections with their bodies and gained a greater understanding of how the blood system functions, being able to articulate their ideas with more detail and express their knowledge through their drawings.

The children's vocabulary has widened and the project has provided them a context to look closely at the skull and consider how the brain operates; at how signals are sent to our brains and how it communicates with others.



Reflection

All children have an innate desire to learn therefore it is part of my role is to create environments that promote children's own ideas to be realised.

Collaborative group work deepens curiosity and questioning and stimulates new ways of thinking. Recognising that children have a right to make their own choices and decisions and that they are capable of initiating their own learning gives the learner agency over their own learning.

At times, as an Educator, I felt lost in knowing what to do next. Reflecting upon their work, however and keeping close to the children's interests, ideas, theories, re-offering and revisiting the children's work enabled me to gain a clear understanding of what is was the children wanted to find out about and how I could facilitate this as their Educator.

