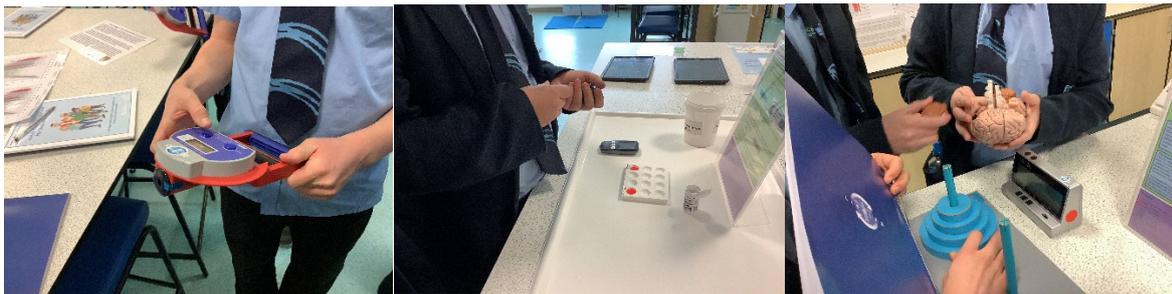


**LifeLab**  
**17<sup>th</sup> – 26 January 2024**  
**Year 9 – Science**

Over eight days in January, the Science department took over 150 of our year 9 students to LifeLab which is a specialist lab at the University Hospital Southampton. Lifelab is designed to teach teenagers about the science behind the health messages targeted at their age group.

The adventure started back in the classroom, at Sholing, where students were reminded about what a healthy lifestyle consists of, the science behind non-communicable diseases (these are diseases that are not spread from person to person, but are influenced by our lifestyle choices or genetics) and how social media can influence our lifestyle choices.

Classes then embarked on visits to Lifelab. There were lots of different tasks that could be tried such as measuring blood pressure, finding out how strong grip strength was, how high muscles allowed the body to jump, and what the maximum volume of air lungs could hold.



*Figure 1. Measuring our grip strength, blood sugar levels of a fictional teenager, puzzle solving.*

One of the highlights was being able to use the ultrasound machine to look at our carotid artery which is the artery found in our necks. It allowed students to see the blood flowing through and they could even turn the sound on and hear their heart beat!



*Figure 2 Ultra sound of the carotid artery*

In small groups students were then taught hands only CPR, a life skill which has now been brought back to the Sholing community. Amazing!



Figure 3. Student learning hands-only CPR

There was a fantastic opportunity to meet some of the scientists working around the hospital, learn about their jobs and career pathways. It was great to learn about jobs may have not been heard of before. One example was that they met specialists in diabetes, on designing new drugs and the process to get them licenced and DNA.

Fun fact: Did you know that there are over 60 analytical labs at the hospital working to analyse our test results and conducting new research?



Figure 4. Extracting our DNA

Students then got to practice their new skills and set up a gel electrophoresis, which is a process that allows us to separate DNA using electricity. This allowed them to look at the DNA of a fictional character and interpret their results, providing insights into how lifestyle can affect the health of an unborn baby. Extracting some DNA and then dyeing it so it could be seen was a highlight. Some students thought this was a little yucky as some of their snacks from breaktime in the samples could be seen.

Overall it was a really interesting day learning about health and potential future career opportunities. I would like to congratulate year 9 for their positive attitude to learning and attitude throughout the day.

Dr Saunders