




Science Department - Curriculum Intent

 <p>Globally Aware</p> <p>“How is this helping me understand the world around me and how it is changing?”</p>	<p>In the Science department we aspire to enable our students to become globally aware. We cover a wide range of topics that help our students build their knowledge for the future globally.</p> <p><i>For example, we cover:</i></p> <ul style="list-style-type: none"> • Water treatments in third world countries • Pathogens and how they affect different areas of the world- some countries don't have the basic equipment that we have. • In Physics we talk about nuclear reactions and explosions and the damaging affects they have had on places and people • Looking at international hazard symbols, which are the same in every language • Comparing periodic tables from different countries • Maths skills that are the same in every country • Climate change and how to reduce the amount of fossil fuels – electric cars, renewable energy etc.
 <p>Culturally Aware</p> <p>“How is this helping me understand other cultures and my locality?”</p>	<p>Being culturally aware is a crucial part of living in today's society. Whether you are working in Lincolnshire or travelling abroad, having certain knowledge and experiences is key. In science we incorporate many different topics which allow our students to become rounded individuals.</p> <ul style="list-style-type: none"> • We have a high standard of expectations in our department, having respect for each other will allow students to have respect for other cultures when they go travelling. • In chemistry we look at water treatments in third world countries compared to the UK methods so students are aware of how much of a struggle it can be for certain people to just have essentials. • We have a range of teaching methods such as debates that allow students to be aware of others and their thoughts and beliefs

	<ul style="list-style-type: none"> • In biology we carry out research on different topics that allow students to be aware of different types of mental illness, genetic disabilities etc. • We also look at diseases and treatments in third world countries compared to first world countries. In our ecology lessons we discuss different species native to the UK but also compare them with species from other countries.
 <p>Self-Aware</p> <p>“How is this helping me understand my emotions, my body, my actions?”</p>	<p>Being self-aware will allow our students to enrich their emotional intelligence and develop greater listening skills and strength their relationships and communications. It will also allow them to be better leaders and independent learners.</p> <p>In our biology lessons we teach about</p> <ul style="list-style-type: none"> • Hygiene • Diseases and how they spread • The menstrual cycle <p>In our chemistry lessons we teach about</p> <ul style="list-style-type: none"> • Water usage and ways to save water across the world • Plastic waste and the environmental impact. <p>In our physics lessons we teach about</p> <ul style="list-style-type: none"> • Appliance efficiency in the home and how they can save money and energy leading to a more green environment
 <p>Ambitious and work ready</p> <p>Life Ready</p> <p>“How is this preparing me for the next stage of my life?”</p>	<p>In the science department we arrange a wide variety of trips and events that allow our students to be ready for the world of work. We also try to enhance their understanding of certain career paths.</p> <ul style="list-style-type: none"> • Students take part in drop down days to enhance their knowledge (focusing on topics they struggle in, with a focus on core practical’s). • We take students on trips that involve possible careers in the future such as: <ul style="list-style-type: none"> ○ Medical techniques ○ Women in Engineering ○ Forensics day ○ Careers day (scientists from all over the country come to discuss their research) • Through our curriculum, we look at industrial processes; e.g. fractional distillation of crude oil

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| | <ul style="list-style-type: none">• Students get good laboratory practice, learning hazard symbols, following methods, using aseptic technique etc.• Every year we carry out a careers lesson, this gives students an idea of what science careers are out there and what grades and skills they need to pursue it. This is linked to our curriculum.• We also have a careers display in the Science Department giving students an insight on what careers are out there in science |
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