



# Physics A Level: Developing Cultural Capital, Diversity and Equality

Cultural capital is the accumulation of knowledge, behaviours, and skills that a student can draw upon and which demonstrates their cultural awareness, knowledge, and competence; it is one of the key ingredients a student will draw upon to be successful in a diverse society, their career and the world of work. In the Sixth Form, we aim to build our student aspirations and expose them to a range of experiences to help them achieve goals and become successful individuals who understand and support diversity and equality.

We recognise that for students to aspire and be successful academically and in the wider areas of their lives, they need to be given diverse, rich, and sustained opportunities to develop their cultural capital. We do this in many ways, for example, through our curriculum, extra-curricular activities, trips and visits, careers activities, and PSHE/RSE programme.

There are nine key realms to cultural capital in the Sixth Form at Samuel Whitbread Academy:

**Cultural Capital**  
provides health,  
well-being and  
growth



**Cultural Capital**  
lets us share our  
histories, our memories,  
the people, the places  
and the things that  
matter to us.



**Cultural Capital**  
creates the curiosity and  
confidence to make  
connections between  
the past, the present and  
the future.



**Cultural Capital**  
sparks generations of  
innovators.



**Cultural Capital**  
is to be found locally,  
nationally, globally -  
**everywhere.**



**Cultural Capital**  
nurtures inclusive  
communities.





**Cultural Capital**  
enriches today and  
inspires tomorrow.



**Cultural Capital**  
is ours to discover,  
ours to create,  
ours to share.



**Cultural Capital**  
belongs to me,  
belongs to you,  
belongs to us all.



These nine realms can be broken down further into the following sub-categories: **Personal development, Social development (including political and current affairs awareness), physical development, spiritual development, moral development, and cultural development.**

What is now outlined are the key areas of both academic and enrichment that take place within and outside of this course area to enhance and develop these diverse elements of cultural capital:

### **Personal Development:**

Personal development consists of activities that develop a person's capabilities and potential, build human capital, facilitate employability, and enhance the quality of life and the realisation of dreams and aspirations.

Element of the curriculum and/or enrichment
<p>In physics, students will continually develop skills that will serve them well in later life. These include, but are not limited to: becoming an independent learner, become reflective, becoming proactive and becoming a good team player.</p> <p>Students are constantly faced with challenging tasks which require them to potentially seek help, work with others or conduct research in order to find a solution. The practical work that is undertaken also encourages good working relationships with their peers and helps develop the skills they'll need in future life or employment.</p> <p>The "How Science Works" elements of the specification also help contribute to personal development by highlighting the methods, processes and skills needed for a future career in the hard sciences. The skills of problem solving, thinking critically and analytically, and being able to manipulate data will all be developed during their two years of physics.</p>



## **Social Development:**

The process by which a child learns to interact with others around them. As they develop and perceive their own individuality within their community, they also gain skills to communicate with other people and process their actions.

Element of the curriculum and/or enrichment
<p>Through the Practical Endorsement part of the syllabus, students will inevitably have to work with different people. Relationships will be formed and communication skills will be fostered.</p> <p>Discussions and the sharing of ideas is a normal part of lesson time, where students will become proficient at interacting with others and critiquing ideas.</p> <p>Outside of lesson time students will have the opportunity to attend public lectures, and visit places such as Cambridge University and the European Centre for Nuclear Research (CERN). All of these experiences will aid their social development.</p>

## **Physical Development:**

These are the major motor or physical achievements a student enhances and develops. Physical development is a vital part of growing up as students learn to master control of their body

Element of the curriculum and/or enrichment
<p>Students will develop and improve their fine-motor skills during their time on the course. The importance of being able to take precise measurements will be made clear during Y12 and Y13. This inevitably involves the use of sensitive equipment such as cathode-ray oscilloscopes, micrometer screw-gauges, Vernier callipers, Hall probes, Geiger counters, lasers and signal generators to name a few.</p>



## **Spiritual Development:**

The development of the personality towards a religious or spiritual desired better personality.

Element of the curriculum and/or enrichment
Students will be confronted by some of the biggest ideas that humanity has every had to consider. These will include: -the Big Bang -the age of the universe -the fate/evolution of the universe -the nature of time and space While spirituality or religion will not be specifically discussed, these topics will inevitably lead to students' curiosity being piqued.



## **Moral Development:**

The development of attitudes and behaviours toward other people in society, based on social and cultural norms, rules, and laws.

Element of the curriculum and/or enrichment
Morality is an important aspect of several topics in physics. These include, but are not limited to: -nuclear power -nuclear weapons -renewable energy -global warming/climate change



## **Cultural Development:**

Cultural Diversity is at the heart of the Sixth Form and students will learn about themselves and relationships with others from a variety of cultural backgrounds.

Element of the curriculum and/or enrichment
Simply by interacting with their classmates, different cultures will be indirectly experienced by students on the physics course. They may have classmates who speak different languages, have a different/no religion or have parents from a different country. The syllabus itself doesn't address matters of cultural development, but this will happen organically amongst the students.



Students will also have the opportunity to experience other cultures through our extra-curricular program of lectures and trips, which will involve them travelling to Switzerland in Year 13.

