



STEM Manifesto

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CONNECT



High Tunstall
College of Science

Inspire | Support | Achieve





Vision

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At High Tunstall College of Science we aim to enrich the experience of all through the lens of a high quality STEM provision that drives improvement, opportunity and preparedness.

We understand the necessity of employer engagement so that we are preparing our students for future opportunities where qualifications are only one factor within the range of attributes necessary for success.

We recognise the importance of wide ranging partnerships to prepare our students for the demands of future education, training and employment. These partnerships will build a future workforce that will benefit the regional economy.

Together with partners we will inspire and support our community to achieve.





HTCS Context

High Tunstall College of Science has been through a period of radical transformation during the past 5 years and we are now ready to move to the next phase of improvement where we will become a STEM Centre of Excellence for the region.

HTCS is a fully comprehensive state secondary school in Hartlepool. We serve a broad community where affluence and deprivation co-exist. We are a fully student centred organisation and are committed to system leadership and self improvement.

The future is exciting and our STEM Manifesto highlights the pledges we have made for the next 3 years prior to the move to our new facilities. The first step has been to invest in the STEM Assured process and we are proud to be the first 11-16 secondary school in the country to achieve this accreditation .

This investment and the recognition of the STEM Foundation of our current provision and ambition is evidence of our determination to realise our vision.



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Clusters

HTCS engagement with the STEM Assured process means that we have clear indications of the current and future demands for the region. This has enabled us to develop a range of STEM Clusters that will focus our delivery and build skills and qualifications for our students that are intrinsically linked to the forecasted regional economy and labour market.

Our STEM Clusters are:

- Healthcare and Wellbeing
- Engineering, Robotics & Process Engineering
- Construction, Energy & Low Carbon Technologies
- Transport Logistics & Retail Management
- Media, Design & Computing

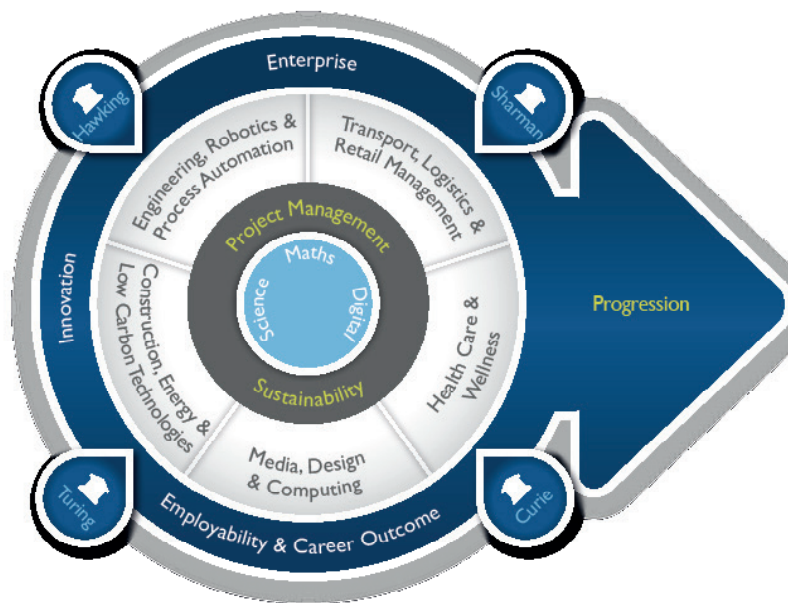
The STEM Clusters provide clarity for curriculum development, enhanced provision and the necessary skills base that we will develop for all students.

The Clusters are connected through the threads of **Enterprise, Innovation and Employability** and we will use these to develop qualifications and pathways that are connected to regional industry through robust and reciprocal partnerships.

New and emerging technologies that meet the needs of key regional industry sectors will be embraced as part of our core strategy of employer and community engagement.

All activity will be designed to close the gap between the skills demanded by the education system and the skills required by employers.





CONNECT to Industry

The central pledge of our manifesto is to connect with industry partners to develop:

- A curriculum that meets the needs of the education system and the needs of employers.
- Learners that have the necessary attributes for future education, training and employment.
- A fully mapped enhanced provision programme so that all have access to wide ranging extra curricular opportunities.
- Student understanding of the workplace and the range of career opportunities available to them.

We will connect with a range of partners for each of the STEM clusters and will establish a core Stakeholder group that will determine the direction of STEM provision at HTCS.





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Learning

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In 2015 HTCS launched the Tunstall 20, which lists the 10 teaching behaviours that facilitate the development of 10 core learning behaviours. The T20 learning behaviours are based upon the skills gaps identified by employers alongside the behaviours necessary for students to become fully independent and active citizens.

College professional development is fully connected to the T20 and we will ensure that all teaching is planned around the behaviours so that the HTCS community is immersed in these essential skills on a daily basis.

We will ensure that T20 is the framework upon which all opportunities are developed so that it is possible to map provision for all individuals within the College.





T20

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Teaching will be...

- Rewarding
- Inspirational
- Challenging
- Adaptive
- Thought Provoking
- Inclusive
- 360 Degrees
- Facilitative
- Cognitive
- Boundless

Learners will be...

- Aspirational
- Active
- Resilient
- Reflective
- Innovative
- Problem Solvers
- Flexible
- Leaders
- Communicators
- Independent



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Opportunities

HTCS seeks to provide opportunities for students to connect their learning to real life applications. We will work with our partners to develop this principle and aim to provide all students and our wider community with experiences that will facilitate their understanding of the skill sets necessary for employment. We will achieve this by:

- Designing immersive work experience opportunities
- Establishing a network of industry mentors.
- Developing annual teacher industry placements
- Providing a range of extra curricular opportunities focused on employability, innovation and enterprise
- Delivering extra curricular activities based upon the needs identified within the 5 STEM Clusters





CONNECTED Community

HTCS has strong connections with the Primary and Post 16 education sectors and we will develop these partnerships further within the framework of our STEM vision. All the pledges within our Manifesto relate to provision beyond the confines of HTCS as we are well placed to provide civic leadership across Hartlepool and beyond.

The development of industry connections will only add to the strength of this community and its ability to provide a dynamic form of education.

We will work beyond our statutory duty and endeavour to provide access to education and training opportunities for adults to facilitate the employment opportunities that exist within the 5 STEM clusters.



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Environment

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In 2015 we received notification of substantial investment in our facilities . The planning and implementation of the new build will take place during the lifetime of this Manifesto and we are committed to connecting with STEM industries to help us create an environment that meets the needs of the 5 STEM Clusters.

We will work with industry partners to develop specialist teaching spaces that will enable our students to learn in state of the art facilities that prepare them for future employment. These facilities will also be accessed by industry for training and development as part of reciprocal partnership arrangements.

This connection to industry is pivotal to the realisation of our vision. The potential of these partnerships will help us redesign our education provision into a landscape that recognises the connection between our children and the successful future of the region.

Britain's first astronaut, Helen Sharman, visits HTCS.





CONNECTIONS

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HTCS will establish a stakeholder group that will consist of a representative industry partner from each of the 5 clusters, representatives from our primary and post 16 partners and the core team from HTCS. This group will oversee the strategic direction of STEM at HTCS and monitor the progress towards achieving the pledges set out in this manifesto.

If you would like to get involved or would simply like more information please contact the HTCS Core Team:

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