Crookhorn College
STEM Strategy

Vision

To raise awareness of STEM activities within the school, how they link to all subjects and where they can support the student's future.

Objectives

Build the profile of STEM within the school and virtually, using STEM ambassadors to help with this.	To promote STEM through House competitions	To provide an opportunity for targeted students to attend STEM activities outside the everyday college environment	Activities from the STEM programme to be reflected in curriculum maps for relevant subjects

Current Position Summary

Currently STEM activities are run as standalone activities and not cross referenced against other subjects. There is a lot of good practice and enrichment activities happening across the school however they are not logged as part of the bigger plan, therefore the students do not relate to them as being STEM activities they are just subject activities. The aim is to change the culture around STEM by making sure students know what it is, what we have at Crookhorn and how it applies to every subject.

Areas of strength

All departments run excellent enrichment programmes:

Science:
- Lunch Club
- Year 6 transition clubs
- Professor Cranium
- Science Christmas Show

Technology:
- STEM catering competition
- Techno Hunt
- Bournemouth University Robotics Day - New

Engineering
- Partnership with WASP.
- Girls in engineering
- Portsmouth Water – Farlington Treatment Centre Visit

Maths
- Maths Challenge x 3
- Maths Feast
- University South Maths Challenge
- Challenge Award

More events for each aspect of STEM can be found on the STEM programme.

Areas for Development

The areas to be developed are focused around pulling the programme all together and working as a team to have a promoted STEM programme. We also need to improve STEM across all areas of the school, not just in STEM subjects.

Objectives & Action Plan

Objective – Build the profile of STEM within the school and virtually, using STEM ambassadors to help with this.

Strand	Development/Activity	Milestones	Impact
STEM ambassadors	Create calendar of meetings on STEM hub Add application form and process to STEM hub. (done by current Stem Ambassadors) Promote assemblies/tutor time. Regular meetings with STEM ambassadors once a half term.	Autumn term 1 – promote STEM ambassador sign up to all houses.	All year groups 7-10 have at least 2 STEM ambassadors
STEM hub	Training for STEM ambassadors with AJB for access to STEM hub. STEM Hub completed and fully up and running with STEM ambassadors.		Live itslearning page with sections linked to: Stem ambassadors Trips Stem Clubs. STEM enrichment STEM games
STEM programme	Wide range of enrichment opportunities offered across the college from STEM subjects.		Calendared trips/enrichment activities for all years. 24/25 - Start to focus on how to build this into the curriculum of non STEM subjects.
STEM Week	2 x House events for yr 7-9 Winchester Science Museum visit Tutor Time activities Promoting on computer desktop backgrounds		Promoting STEM to the whole school and raising the profile across the college

Objective: **To promote STEM through House competitions**				
SMART Target	Output	Activities	Who	**Impact**
During the Autumn term deliver two house competitions	Students attended the competitions	Create & Monitor the events	MB	**Students will have participated in STEM activities.**
During the Spring term deliver two	Students attended the	Create & Monitor the events	MB	

house competitions	competitions			
During the Summer term deliver two house competitions	Students attended the competitions	Create & Monitor the events	MB	

Objective: **To provide an opportunity for targeted students to attend STEM activities outside the everyday college environment**				
SMART Target	Output	Activities	Who	Impact
By the end of the September create a list of targeted students for STEM interventions	To be aware of the students aspirations	Use the options forms to identify year 9 students interested in STEM Use the survey to identify other year groups	CM	**Students will have participated in STEM activities and gained a greater understanding.**
During the Autumn term plan and attend at least one STEM event, outside the college environment	Students to be aware of outside opportunities	Review events already happening in the school and where there are none look for opportunities	MB	
During the Spring term plan and attend at least one STEM event, outside the college environment	Students to be aware of outside opportunities	Review events already happening in the school and where there are none look for opportunities	MB	
During the Summer term plan and attend at least one STEM event, outside the college environment	Students to be aware of outside opportunities	Review events already happening in the school and where there are none look for opportunities	MB	

Objective: **Activities from the STEM programme to be reflected in curriculum maps for relevant subjects**				
SMART Target	Output	Activities	Who	Impact
To meet with HOS to review where STEM is shown on their	STEM is mapped across the curriculum	Arrange a meeting with HOS to discuss how STEM is shown on	MB / HOS	Teachers will have more of an understanding of how STEM can be mapped

curriculum maps		their curriculum maps		across their curriculum.
To support all teachers to add starter activities that are related to STEM careers within their teaching.	STEM is mapped across the curriculum	Work with teachers to support the creation of starter activities	MB	

Stakeholder & Employee Engagement

A key aspect of the programme is the role that external stakeholders play, these include: Employers, FE Colleges, Apprenticeship providers, Universities, Alumni & Parents.

One of the advantages of running our work experience programme in-house is the networking opportunity that this provides, enabling the Work Experience Administrator to build relationships with individuals and companies. Many of our employers also support activities such as Skills for Life Day and Mock Interview Day as a result, which will mean that the students are having contact with STEM employers.

Whole School Approach

The diagram overleaf illustrates the diverse way in which staff can contribute to the STEM programme. One thing that is clear here is the vital role played by teaching staff in both their tutorial and subject specialism roles due to their continuous interaction with students. The value that the combination of both focused careers activities and the more informal conversations that may occur during the course of these interactions cannot be underestimated.

Whole College approach co-ordinated by STEM Co-ordinator

- All teachers
- PSHE teachers
- Media Technician
- Links with other curriculum subjects
- Promotion of STEM around the school
- Learning from STEM careers & Labour market information
- Subject Teachers /Career Champions
- More & Most Able Co-ordinator
- Experiences STEM Post 16 options at FE & HE
- STEM Days
- Tutors, Heads of House & Mentors
- Covering Staff
- Subject Teachers /Career Champions
- Support for STEM Ambassdors
- House Competitions
- Encounters with STEM Employers & Employees
- Subject Teachers /Career Champions
- Pastoral Support staff team/Senco
- Alumni
- Work Experience Administrator

Monitoring

To ensure that the strategy is being implemented as planned progress will be monitored in the following ways:

Objective	How	How often	Who
Build the profile of STEM within the school and virtually, using STEM ambassadors to help with this.	Discussed at meeting with CP	Monthly	MB
To promote STEM through House competitions	Evaluation with the students	At each event	MB
To provide an opportunity for targeted students to attend STEM activities outside the everyday college environment	Discussed at meeting with CP	Termly	MB / CP
Activities from the STEM programme to be reflected in curriculum maps for relevant subjects	Discussed at meeting with CP and HOS	TBC	MB / CP / HOS