

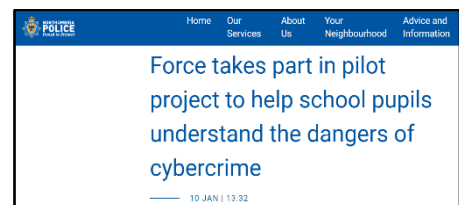
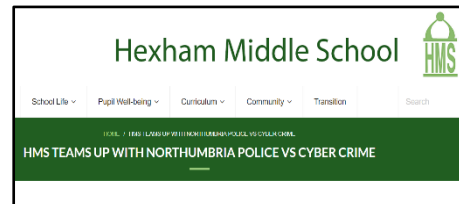
# Cybersecurity Project

## Hexham Middle School

### National Curriculum subject content: intent

**Year 8 National Curriculum subject: Computing**  
**Specific Topic: e-safety**  
**School scheme of work:**

1. My media: students' review of own media habits and reflect on role of digital media
2. A creator's responsibilities: reflect on responsibility as creators and users of creative work
3. Safe online talk
4. How to present yourself online
5. Gender stereotypes online



### Project Summary

The aim of this project was to create a meaningful context for the teaching of e-safety in the Computing Curriculum. The Year 8 students were set a challenge by the Northumbria Police Force Specialist Cyber Investigation Team to create a child-friendly version of the Computer Misuse Act 1990 that could be shared with other schools in the area and also be potentially shared with other schools across the country.

The project brief and success criteria/assessment as well as the overall timings, were developed collaboratively by the Head of Science and Computing, a Force Specialist Cyber Prevent Officer from Northumbria Police, the Digital Inclusion Project Co-ordinator from Northumberland County Council (NCC) and a researcher in Project Based Learning from Newcastle University.

The project challenge was launched during an assembly and then the students worked on their research and presentations during their computing lessons. The groups were made up of 3-5 students (friendship groups) with roles outlined at the start that the students assigned themselves based on where they felt their strengths lay. The presentations were created using either Adobe Spark or PowerPoint with the students encouraged to use a multimodal approach. Visits took place by all of the project development team throughout the seven week project to check up on the students' work and provide a sense of momentum. The final presentations were initially peer-assessed by the school digital leaders. They chose one presentation per class to put forward to the final judging.

Owing to the Covid 19 school closures the final stage of the project was unable to take place, however the following would have occurred:

- Final 6 projects judged by the panel (Northumbria Police Force Specialist Cyber Investigation Team, NCC, Newcastle University)
- Prize awarded by Northumbria Police Force Specialist Cyber Investigation Team to winning team
- Visit to School of Computing, Newcastle University for a workshop.

## Skill development

- Team work
- Working to a project brief
- Working to deadlines
- Producing work for a specific target audience
- Presenting to an external audience

## Cultural capital

The project was designed to provide the students with opportunities to meet new people from a range organisations. A visit to the local university to attend a workshop in the School of Computing was also due to take place that would have provided the students with the chance to meet students, see what it is like to study at university and take part in some actual work using university facilities.

## Gatsby Benchmarks

BM4: Linking curriculum learning to careers

BM5 Encounters with employers and employees

During the launch presentation the project development team from Northumbria Police Force Specialist Cyber Investigation Team, Newcastle University and Northumberland County Council introduced themselves and discussed their current roles, plus their study and career journeys. This was built in from the very start to ensure that the students would not only be set a brief but would gain an understanding of career possibilities. These individual narratives are critical in helping to support students to understand their own possible futures.

## Project activity with timeline

Week 1: project launch (7-10 Jan 2020)	Week 2 13-17 Jan	Week 3 20-24 Jan	Week 4 27-31 Jan	Week 5 3-7 Feb	Week 6 (Class teacher away) 10-14 Feb	Week of 24 <sup>th</sup> Feb
Presentation of challenge to whole year group in an assembly: Northumbria Police, NCC, Newcastle University	Students to research and work on section 1 of the CMA and create first part of presentation using adobe spark Visits from project team	Students to research and work on section 2 of the CMA and create second part of presentation using adobe spark	Students to research and work on section 3 subsections and create third part of presentation using adobe spark	Students to research and work on section 3 subsections and create third part of presentation using adobe spark Visits from project team	Presentations finalised ready to submit to the digital leaders to assess.  Digital leaders to assess	Winning groups from each class to present their product to the panel who judge it using success criteria. ( 6 groups in total)

## Entry event

A key component of the project was that it had an official start that would set the tone for the coming weeks. The whole year group attended an assembly where the challenge was set by Northumbria Police Force Specialist Cyber Investigation Team. The launch was publicised on social media and in the local paper thus raising the profile of the project within the school and community and raising the stakes for the students.

### 15th January Hexham pupils spread the word about cyber crime

By Samantha Spower | @CourantSam



Students Ben Sanderson, Luke Galloway, Will Daykin and Robbie Jarvis have been working on the cyber crime project. Photo: HSC22022

## Final product

The challenge that was set by Northumbria Police Force Specialist Cyber Investigation Team and the council was to:

*Design your own version of the Computer Misuse Act 1990 so children the same age as you can learn about it.*

*Come up with your own examples for each section of the act.*

*You can use examples that may talk about apps, websites or technology you use now.*

The students were asked to produce a presentation exemplifying their new version of the act using either adobe spark and iPads or PowerPoint on the PCs in the IT suite. A multi-modal approach i.e. using video etc. was encouraged.

Crucially the students were told that the winning team could have their child-friendly version of the Act shared with other schools in the area with the potential for it to also be shared with other schools across the country.

I think that's what really motivated the pupils that actually, if theirs was good enough, it could be used.

## Assessment and final presentation

Whilst the teachers continued with their ongoing assessment of the national curriculum content, the product and process assessment criteria were devised by the Force Specialist Cyber Prevent Officer from Northumbria Police and the Digital Inclusion Project Co-ordinator from Northumberland County Council (NCC). These criteria were presented to the students at the launch event so that they would have a clear understanding of how their work was going to be judged.

Peer assessment was also built in to the project, with the school digital leaders asked to undertake the initial narrowing down of the total 36 presentations to 6 (one per class).

The six best presentations/versions of the act (as determined through peer assessment by the digital leaders) went through to the final showcase event. Here the students were expected to talk through their product and the process of making it to a panel made up of the Police, Council, University and teaching staff. A competitive element had been considered an important feature to drive up the quality of the work and therefore a prize had been offered from the outset which one group would win. The whole year however would get a certificate and the opportunity to go to a workshop in the School of computing at the University.

Northumbria Police - Content	Northumberland County Council - Tech
Can your product be understood by a younger audience	How you used Adobe Spark during the project
How did you think of the examples you use	Type of template used
How the roles were used when creating the content	How the roles were used when using Adobe Spark

## Planning the project: who, how?

The planning process took several months and involved discussions at the university and at the school between the Head of Science and Computing, the Cyber Prevent Officer from Northumbria Police, the Digital Inclusion Project Co-ordinator from Northumberland County Council and the researcher from the university. The project planning map and timeline were used to record specific practical details e.g. timings of lessons, the IT hardware and software available, when the teacher would be away etc. as well as potential ideas for a product and showcase and the success/assessment criteria. This document was refined and revised at every meeting ensuring that by the start of the project all participants were clear on their roles and were happy with the project content and logistics. Having all of these different participants present in the planning process was critical to the success of the project for the following reasons:

- 1) It ensured that an interesting and authentic project developed using the ideas and knowledge all of the contributors.
2. It ensured that the context of all stakeholders was understood. For example, the Head of Computing was able to provide the National Curriculum context for the project, the practical details and her knowledge of the Year 8 students. The Cyber Prevent Officer from Northumbria Police was able to draw on her knowledge of both the Act and her experience of working with school students in the region. The Digital Inclusion Project Co-ordinator from Northumberland County Council drew on his knowledge of developing projects that have digital products as their outputs. The university researcher helped support the group to create and deliver the project through the provision of planning tools and exemplification of potential approaches.

Well, I'm not used to planning with people from outside of school or outside of you know the partnership, so it was great to get that bigger perspective of what's going on across Northumberland in terms of digital literacy and actually a real- life organisation like Northumbria Police and what they're looking at.

## Learning for next time

- All of the project partners agreed that the time allocated to the planning before the project was critical to its success.
- The ability to be flexible and change the timeframe was important as unexpected changes to lessons in some weeks meant the project needed to be extended.
- Having a real brief set by an external partner made the project meaningful for the students and created an important context for their learning.
- It was important that the project team from the police, council and university came to the school regularly when the project was running to ensure that the teachers felt supported and to keep the students motivated.
- The teachers created two presentations that provided the structure for the students to undertake their research and create their product. One was given out at the start and the second at the half way point to keep the students on track.
- The teaching staff equally felt under pressure to ensure that a high-quality product was created. Be prepared for this.
- Allowing the students to work in friendship groups worked very effectively.
- It was important to have all of the staff in the school on board as the students needed to be withdrawn from other subject lessons in order to attend, for example, the launch event.
- The product in terms of the hardware and software used had to be modified by one teacher as the iPads could not be used in her classroom owing to a poor wifi connection

## Useful resources

School of Computing Workshop, Newcastle University 'Understanding Network: communicating using binary' <http://casne.ncl.ac.uk/outreach/workshops/secondary/>

### Resources from the project and on the website:

The planning map plus timetable  
The project launch presentation  
Group roles  
The project success criteria  
The Computer Misuse Act (CMA) pdf  
Useful links and examples about the CMA

