

## SSAT and Dulux Smarter Spaces Project – end of project report

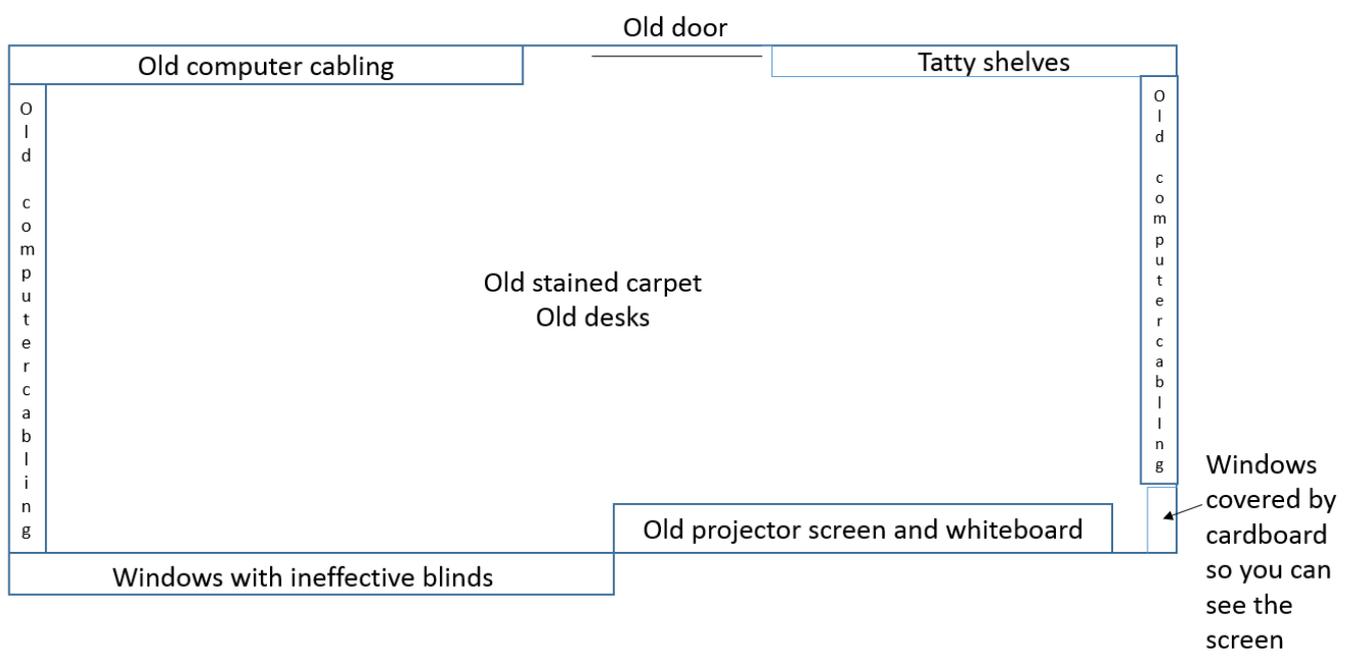
School Name: Upton By Chester High School
Name of person completing this report: John Keegan
Brief description of type of room/space: An underused classroom

**Overview**

What impact did you expect Smarter Spaces to have before embarking on the project? We expected that the project would change C14 from an underused space into a digital workspace. It would also improve the learning environment which would in turn improve teaching and learning.

Were there any particular challenges you were facing that lead to your participation? It was a terrible teaching room as you can see from the photographs, comments and statistics below.

### Before: Transforming C14 into a Smarter Space

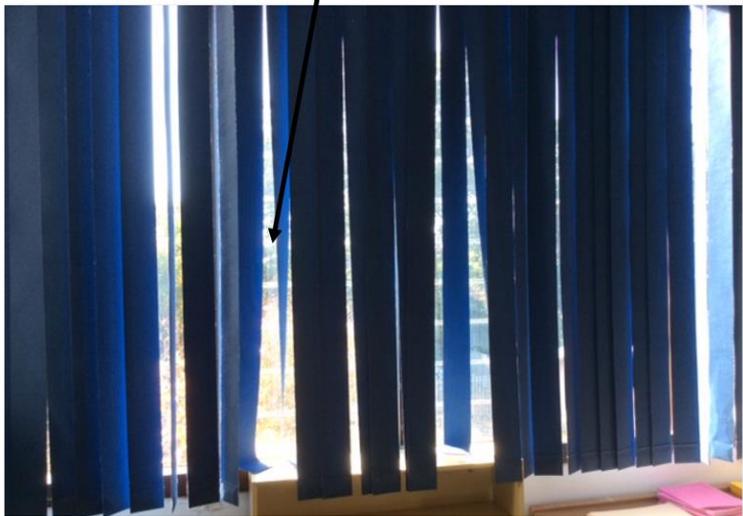


Mr Jones, who had used the room for a number of years said “It is a dismal place to teach and for students to learn. It is an uninspiring, unpleasant work space. Poor layout, lighting and unpleasant environment. I think this because the carpet is all a bit ripped and the blinds are broken, also the projector for apple TV, the sound for set work. Faulty wiring, poor paintwork and broken lights. I use the projector for presentations, film clips and exam board material to show good practice and students have paper based resources from the department in their files. Therefore, the room, doesn't help their learning at all, apart from some ICT provision. Unused space, restricted by position of whiteboard therefore less space for students, too many at a desk”.

Cardboard to cover windows so the sun does not shine on the screen



Ineffective blinds



Old damaged door



Tatty old shelves



Ripped screen

Damaged and old sockets and cabling



Damaged lighting



Stained carpet

Old computer cabling



The room was only used 48% of the time during the academic year 2015-16. Staff generally dislike using the room and it is only timetabled when there is no other room available. In a survey carried out with the staff we asked:

How well does the classroom environment of C14 help your students to learn?

On a scale of 1-5, 1 being a great place to learn and 5 being a poor place to learn

1	2	3	4	5
0%	0%	22.2%	22.2%	55.56%

As you can see the majority of staff believe it is a poor place to learn.

We also asked: How well does the classroom environment of C14 help you to teach?

On a scale of 1-5, 1 being a great place to teach and 5 being a poor place to teach

1	2	3	4	5
0%	0%	22.2%	22.2%	55.56%

As you can see the majority of staff believe it is a poor place to teach.

Asking teachers why the room was 'underused' the main reply was due to the condition of the room, the poor layout due to the position of the projector screen and white boards as well as the poor state of the equipment and furniture.

We asked the staff:

What are the 5 most important things that need to change about C14?

Answer Choices	Responses	Responses
▼ The lights	55.56%	5
▼ The blinds	77.78%	7
▼ The furniture	77.78%	7
▼ The walls	22.22%	2
▼ The carpet	77.78%	7
▼ The white board	11.11%	1
▼ The projector screen	22.22%	2
▼ Storage/shelving	22.22%	2
▼ The door	22.22%	2
▼ The layout	88.89%	8
▼ Other (please specify)	Responses	0.00%
Total Respondents: 9		

As you can see the layout of the room is of greatest concern. When speaking to staff they felt that it is badly organised. They said that if the projector screen was relocated then better use could be made of the available space so that students had more room to work. The blinds, furniture and carpet were equally of second greatest concern. These are in a very poor state. The blinds are ineffective since they do not block out the light sufficiently to allow students to see the work on the projector and to stop the sun from shining in the students' eyes. The furniture is very old and in a state of disrepair. The carpet is also old and stained and not pleasant to look at. There was a lack of school funds that could be used to develop the room.

How does the result measure against expectations? There has been a significant improvement but there is still more we would like to continue developing the room. We underestimated the number of tables we would need. We need two more tables to accommodate a full class. We are looking to update the lights and change the door. Please click on the link below to view how C14 has been transformed.

<https://youtu.be/8rmel9m3V50>

We carried out a survey after the work was completed and the students had spent time in the room. We asked the students:

How well does the classroom environment of C14 help you to learn?

On a scale of 1-5, 1 being a great place to learn and 5 being a poor place to learn

1	2	3	4	5
28.57%	55.71%	12.86%	2.86%	0%

As you can see the majority of students see C14 as a great place to learn and some of the comments can be seen below:

It's colourful and calming. It is also equipped with useful technology.

Because it is bright and colourful and it is very friendly colours.

It's different to a normal classroom.

I love the class room and because I was one of the ones that designed it.

Because it's a nice environment and it's like you are in your own little team! And you work better.

I think this because it's a great place to learn but maybe add a few more tables so more people can work together in room.

We asked the students: How well does the classroom environment of C14 help your teacher to teach?  
On a scale of 1-5, 1 being a great place to teach and 5 being a poor place to teach

1	2	3	4	5
52.86%	30%	11.43%	4.29%	1.43%

As you can see the majority of students see C14 as a great place to teach and some of the comments can be seen below:

They can use the technological resources easily and the whole class can see them. Because it puts you in a happy mood. Because it's a good atmosphere. It is a good open space to teach and it's very bright. It is a good open space to work and there is an interactive board and green screen. The classroom is colourful. The forest wall paper is useful when you are doing settlements and the Dulux paint that is a white board. Because it's nice and calm and bright. Because it's very green and bright so you can use green screen and that's a good way of teaching. Because when you walk in to the classroom you feel that you're in a different world of learning. I think it a good place to teach because a nice clean classroom with very nice things in it like an Apple TV. Because if the environment is happy, it will make the teacher happier. I think teachers would like to teach in here as it is a nicer environment to teach in. Lots of different methods of teaching can be used in the classroom. It relaxes you as you are in a new environment, enhancing the technological side of working. As well as the students, the teachers now learn how to develop their technical skills on the iPads.

The less positive comments are as follows: I don't think there is a difference because it does not affect the teacher.

We also surveyed the staff and asked the following questions:

How well does the classroom environment of C14 help your students to learn?

On a scale of 1-5, 1 being a great place to learn and 5 being a poor place to learn

1	2	3	4	5
75% (3)	0%	25% (1)	0%	0%

As you can see the majority of staff see C14 as a great place to learn and some of the comments can be seen below:

The atmosphere that has been created by the colour, wall paper and furniture within the room.

The lovely decoration of the trees makes it a calm environment. The technology available feels like it is a 21st century classroom.

Organised, great resources TV and Apple TV, Immersive wall paper.

The one negative comment was:

Classroom not big enough. Green screen is great tool and classroom environment is pleasant.

The size of the room is not something we can change.

We asked: How well does the classroom environment of C14 help you to teach?

On a scale of 1-5, 1 being a great place to learn and 5 being a poor place to learn

1	2	3	4	5
75% (3)	0%	25% (1)	0%	0%

As you can see the majority of staff see C14 as a great place to teach.

We asked the staff: What do you like about C14?

Answer Choices	Responses	
The blinds	75.00%	3
The furniture	75.00%	3
The immersive wall paper	100.00%	4
The white board	50.00%	2
The write on walls	75.00%	3
The projector screen	75.00%	3
Storage/shelving	50.00%	2
The layout	75.00%	3
The green screen	100.00%	4
Other (please specify)	25.00%	1
<b>Total Respondents: 4</b>		

The most positive response was for the immersive wall paper and the green screen. All of the staff said that they would book the room again.

How were staff and learners selected to take part? The E-learning Facilitators (ELFs) were selected since they needed a digital workspace for training and meetings. The students I taught were selected because it was my teaching room at the time. I also included staff who were timetabled in there and the classes they taught.

### **Enhance the teaching and learning environment**

What did the space look like before and after the treatment? The space has changed considerably. See pages 1-6 above. We also asked the students if they would like the teachers to book C14 again. 91.43% (64) of students said they would. When asked to give reasons they said:

It was good to use the technology in C14 on our training day. It's the best room from the whole school and it's the best place to learn. Yes, because it is a wonderful classroom and has an excellent atmosphere. It has a good lay out. It has a green screen so we can create presentations either on our own or in groups. This classroom is different to all the other rooms and it's a really creative classroom and it feels really calm when you come into this room and you get on to your work quickly and easily. It's a great way to learn with the green screen also with Apple TV. It's a room which I would be enthusiastic to learn in and it's so different compared to the other classroom so it's a great experience and place to be a part of. I would like to use the classroom as it gives us an alternate way to complete and display our work. It is also a more calming atmosphere due to the colours, layout and pictures on the walls.

We asked the staff if they would book the room again and all of them said they would. We asked them to give reasons seen below.

It is a great room, which allows flexibility when teaching in there. My students thoroughly enjoyed making videos using the green screen. Round tables, the green screen and write on walls make it the perfect place for collaborative learning. It a great place to learn and use digital technology.

It is clear from staff and student responses that the design has made the environment more comfortable both physically and mentally due to its new layout. The technology and immersive wall paper provide opportunities for a variety of stimulating activities which cater for different styles of teaching and learning.

What other projects, initiatives or assets has the school previously invested in with a view to improving student performance and /or creating new revenue opportunities (excluding staff)? We have developed a Multi-Use Games Area (MUGA) and a Learning Hub. The MUGA cost £163K to construct, with the aid of a £75K Inspired Facilities (i.e. Lottery funded) grant from Sport England and a £5K grant from MBNA Bank. The Learning Hub cost c. £220K (, around £100K of which was funded from Specialism funding when we became a Humanities College. The cost of redeveloping C14 was significantly less, approximately £5000. On page 5 are comments and statistics from the staff and student surveys which show the positive impact of this redevelopment.

### Inspire Engagement

What anecdotal evidence do you have about how it improved student engagement and satisfactions? We carried out a survey with the students who used the room to help the E learning facilitators (ELFs) with the design process. 13 students surveyed made negative comments about blinds stating that they were ineffective. These comments influenced the plan made by the ELFs to change the blinds in the room. 8 students made negative comments about the layout of the room. They felt that the room was badly laid out and space was not utilised effectively. These comments influenced the plan made by the ELFs to change the layout of the room. They wanted to move the projector screen so that the space within the room could be used more than effectively. 5 students made the following negative comments about the carpet in the room stating that it was dirty and unpleasant.

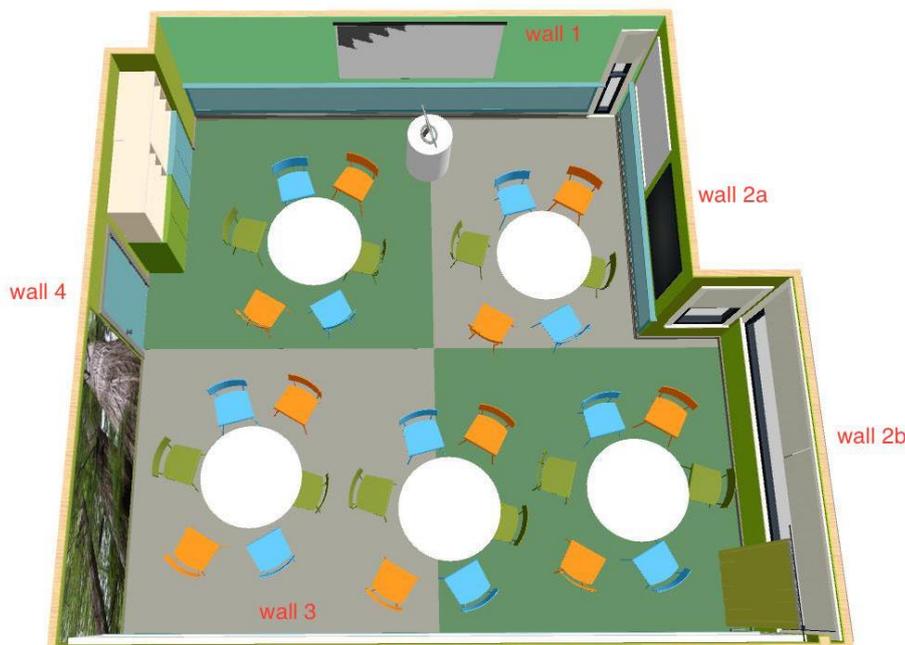
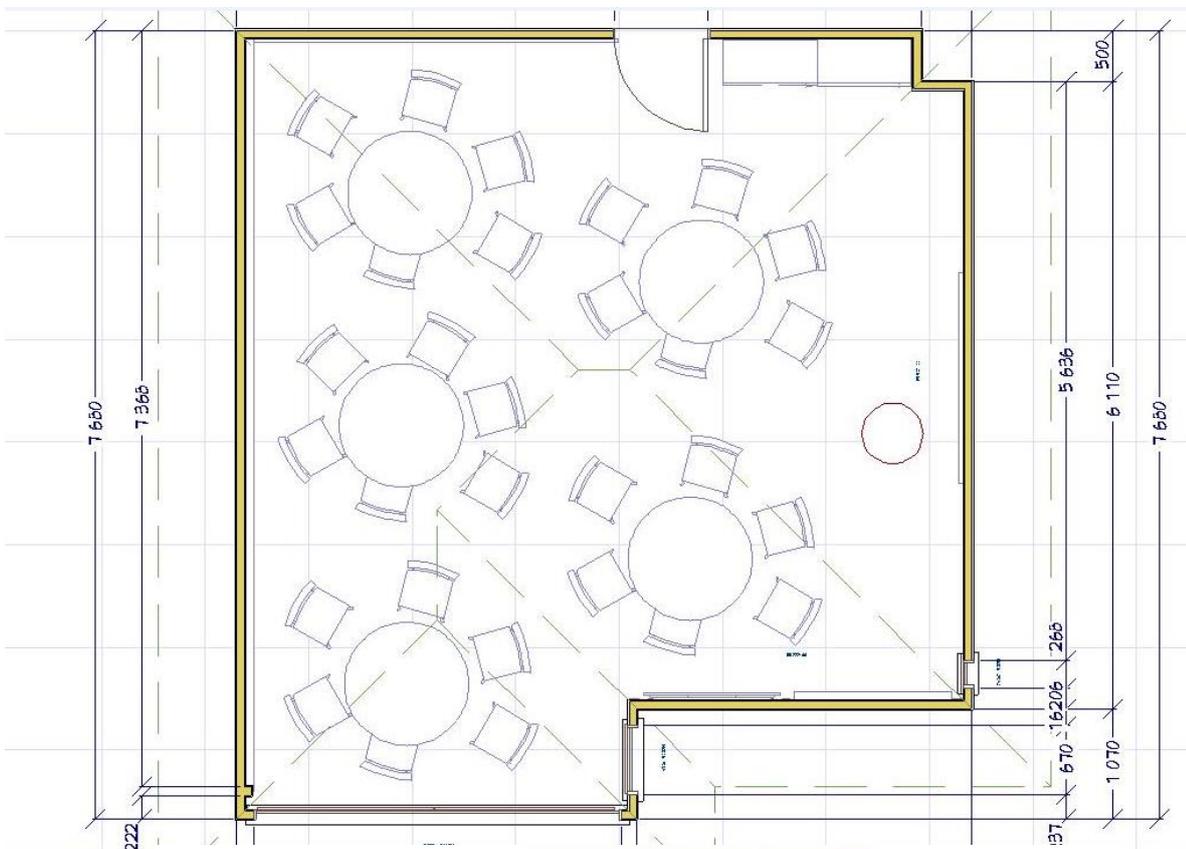
For this reason, the ELFs decided that they need to replace the carpet as a priority and made it part of their plan. 13 students stated that the furniture needed replacing due to its state and age. Therefore, the ELFs included the replacement of the furniture in their plan. The majority of the comments were made about the classroom environment in general. 71 students made negative comments about the environment referring to it being dull and not conducive to learning. For these reasons the ELFs decided to include the need to paint the room in bright and stimulating colours as well as immersive wall paper. 21 (17%) students stated that they did not think the environment affected their learning however the overwhelming majority did (83%) which justified the changes to the environment and the research to be carried out. The overwhelming majority of students (91.43%) wanted their teacher to book the room again, see the comments made by the students above under the heading Enhance the teaching and learning environment.

Is there any data that can prove student learning improved – either through attendance, academic performance or behaviour? There has been a 2.31% improvement in attendance in the classes taught in C14 since it has been redeveloped with an average of 92.06% compared with an average of 89.75% last year. The table below shows that Year 7 groups who use this room, highlighted in yellow, are making greater progress than those groups who do not.

Name	Total Grades	Average Points	Target Avg Pts	Difference
7x/Gg4 JKE	31	2.45	2.03	0.42
7y/Gg4 JKE	25	2.24	2	0.24
7y/Gg5 JKE	17	1.76	1.59	0.17
7x/Gg5 JKE	11	1.91	1.82	0.09
7x/Gg2 JWA	33	3.03	2.97	0.06
7x/Gg3 MCA	29	2.83	2.79	0.04
7x/Gg1 JWA	33	3.33	3.33	0
7y/Gg1 MCA	30	3.3	3.3	0
7y/Gg2 MCA	30	3	3.03	-0.03
7y/Gg3 MCA	29	2.52	2.55	-0.03

Is there any financial benefit to investing in Smarter Spaces – e.g. increased roll, a lettings business etc.? Not yet, however we are going to use the room to provide iPad training for staff from other schools and charge them for this training. We have used the school learning hub in the past.

How did the learners and staff engage in the design process? We surveyed both staff and students about what they would like the room to have and how they would like it to change. Seven staff who used the room at the time responded and their opinions were included within the design process (See page 4 above for their responses). We surveyed 132 students who were taught in the room and their recommendations for change can be seen on page 7. Ten ELFs and two members of staff then met with the designer, Debbie Logan, in March 2015. We discussed the surveys we had conducted and the comments made by both staff and students. We looked at different types of paint, discussed the colours we would use and why, as well as the flooring and furniture. The ELFs led the conversation and made the final decisions on the design of the room. We received the first design scheme from Debbie on 18/4/16 (See below).



**UPTON-BY-CHESTER HIGH SCHOOL**

COLOUR SCHEME

CEILING (including beams)	Dulux Cameo Silk 1 (50YY 74/069) Emulsion
WALL 1 – above dado	Dulux Moorland Magic 3 (50GY 52/263) Emulsion
WALL 1 – below dado	Dulux Inky Pool 3 (10BG 39/169) Emulsion
WALL 2a – above dado	Dulux Indian Ivy 5 (90YY 48/500) Emulsion
WALL 2a – below dado	Dulux Inky Pool 3 (10BG 39/169) Emulsion
WALL 2b	Dulux Indian Ivy 5 (90YY 48/500) Emulsion
WALL 3 – above dado	Dulux Indian Ivy 5 (90YY 48/500) Emulsion
WALL 3 – below dado	Dulux Inky Pool 3 (10BG 39/169) Emulsion
WALL 4	Dulux Indian Ivy 5 (90YY 48/500) Emulsion
WOODWORK TRIM	Dulux Dusted Moss 1 (50YY 33/065) Diamond Eggshell
DOOR (classroom side)	Dulux Inky Pool 3 (10BG 39/169) Diamond Eggshell
SHELVING UNIT:	
Frame, Back & Shelves	Dulux Dusted Moss 1 (50YY 33/065) Diamond Eggshell
Doors (2 each in)	Dulux Indian Ivy 5 (90YY 48/500) Diamond Eggshell Dulux Inky Pool 3 (10BG 39/169) Diamond Eggshell



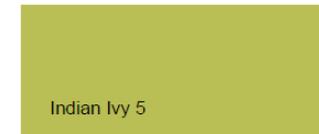
Cameo Silk 1



Moorland Magic 3



Inky Pool 3



Indian Ivy 5



Dusted Moss 1

FLOORING



CEILING  
COLOUR

Cameo Silk 1

WOODWORK  
COLOUR

Dusted Moss 1



The students responded to this scheme and requested that the chairs be blue and green rather than orange. They also decided that projector screen be put on wall 1 and that the white boards remain on Wall 2a. Once the design was completed we discovered that the white board wall did not cover wall 3 but only a small part of it. The designer also underestimated the number of tables we would need and some of the old tables have had to be used to accommodate the number of students.

Are there opportunities for self-directed learning?

Since the start of this academic year, students have been busy using digital technology across a range of subjects in C14. Teachers have been making the most out of our newly decorated classroom. The classroom has been specifically designed to give teachers and students a space to feel inspired, get creative and engage with learning through digital technology.



English: A group of Year 8 students completed an amazing project using the green screen and the iMovie app. Students were tasked with researching about Alcatraz. They had been asked to produce a presentation about their findings. These presentations were then filmed using the green screen and once completed, students iPad skills were enhanced further by learning how to edit film footage, using the iMovie app. Feedback from Mrs Johns (English): "C14 is a fantastic space to work in. Whilst working on their tour guide to Alcatraz, the students were more motivated as a class and really enjoyed their learning. They all said they would happily do this again." Samuel: "I thought we finished with an amazing product. We mentioned lots of people and things about Alcatraz and covered a lot." Dylan: "I learnt about Alcatraz, Machine Gun Kelly and I now know how to use a green screen." Enzo: "I enjoy using the iPads. I learnt lots more about editing my videos and worked as a team."



Business Studies: The Year 9 Business studies groups have been learning all about how companies such as Nike have factories in Indonesia. Students gained an understanding about the unfair working conditions and the people that are employed to work in such places. Once their research was completed the students were asked to put together a presentation based on their findings. The presentations were filmed on the green screen, giving the students the opportunity to be creative when delivering their new-found knowledge and improving their confidence when delivering presentations.



Geography Rock Cycle Presentations: Some Year 7 Geography groups have been learning all about the rock cycle. In small groups they were tasked with researching one of the three rock types. Once they had completed their research they were asked to create a presentation, for which they used the green screen technology. Once their presentations were complete the students were asked to individually create an iMovie, using their presentation film footage. They were asked to include text, images, music and to make their presentations individual.

## Geography - Volcanoes Augmented Reality: Some Year 7



Geography groups used the Quiver Education app to bring volcanoes to life. Students were amazed to see the augmented model in front of their eyes. They were able to watch the volcanic eruption. Students then participated in the interactive volcano quiz, learning the 8 volcanic

components. This truly was a fantastic lesson which brought geographical augmented reality into the classroom.

Music: Year 8 music students were asked to make a musical advert. Some Year 8 students decided to use green screen technology to create their adverts. Lottie said: "As a group we liked using the green screen because it put an effect to the advert which we were creating. It also made the advert look more professional due to it having special effects that you couldn't normally use. I thought using the new classroom made us want to do the work to the best of our ability."



Teacher iPad training: Elf students delivered their first iPad teacher training workshop this half term. The event gave students the opportunity to showcase their knowledge and digital technology talents. Staff who attended thoroughly enjoyed the workshop and commented that they would definitely incorporate the use of digital technology within their lesson plans.

Year 7 Appy Hour: The Year 8 ELF students planned and delivered 3 Appy Hour events during September and October. The events were a great success and gave the ELF students the opportunity to pass on their iPad skills and knowledge to their fellow students. During the Appy Hour events Year 7 & 8 students participated in the following activities: • Creating iMovies, including editing and adding sound effects • Producing creative pieces of work on Explain Everything • Learning how to use the green screen technology and creating some imaginative films • Getting creative with augmented reality, using an app called Quiver Education • Taking a journey into space using the virtual reality goggles. Exploring the exciting and innovative opportunity VR technology has to offer. Due to the success of Appy Hour and by request of the Year 7 students, there will now be an Appy Hour workshop every first Tuesday of the month.

During the last half term ELF students and Digital Leaders took part in an iPad training day in C14. Both days were led by a trained Apple educator. The Year 9 ELF Students and the Year 10 Digital Leaders took part in their iPad training day on Monday 6th February. The students created an interactive e-safety wall. They produced posters using pic collage that contain QR codes. The QR codes are linked to films, that they created using an app called Quik. The students are now going to share these films that contain important messages about e-safety with all Year 7 and 8 students.



Students using both iPads and traditional learning tools to create work for the e-safety wall



Students being taught how to use the Quik App



The finished e-safety wall

The Year 7 and 8 students took part in their training day on Wednesday 8th February. They were tasked with making short animation films with positive messages, about the transition from primary to high school. The ELF students did this by creating plasticine characters, preparing scripts, creating green screen backdrops and using the iMotion app.



The plasticine models



Anna & Rhona preparing their iMotion clips.



Hatty & Holly preparing their iMotion clips.

The students are now going to use their newly gained digital technology skills and knowledge, to prepare a transition workshop for Year 6 students. They will also be sharing their films with Year 6 students to help support a smooth transition.

Both training days were a great success and enjoyed by all students who attended. The activities enabled students to gain some valuable skills, which they can now pass on to their fellow students. All students produced some excellent work, with clear important messages that will benefit current and future students at Upton-by-Chester High School.

### **Encourage Positive Behaviour and Attitude**

Does this smarter space help raise the aspirations of pupils and teachers? Does the space allow teachers and learners to make choices? Do you have quotes from a range of stakeholders? Is there anything to show increased participation in extracurricular activities thanks to the smarter space?

Yes, see pages 5 and 6 to see the positive comments from students and staff. See pages 10 and 11 which give examples of how students and teachers have benefited. Click on this link to watch how the students have responded to the redevelopment: <https://youtu.be/8rmel9m3V50>

## **Promote Personal Development and Wellbeing**

What are the issues children with challenging behaviour face and what mechanisms do you have to support them?

Children with behavioural difficulties are taught within C14. At first, they found the round tables a challenge because they were not always facing the teacher. However, we now have routines in place for this room so that they know when to reposition their chair to see the teacher. We have found that the green paint used in the room has had a calming effect, as has the immersive wallpaper. When we asked the students why the classroom helps them with their learning, we found that 54.29% of students felt that the new colour scheme had a positive impact upon their learning, as opposed to 7.14% who found the décor distracting.

How does your design provide alternative spaces within the school or indeed within the room?

We have a green screen area where students can produce presentations such as the rock cycle in Geography. The white wall is used for students to collaborate and generate ideas such as healthy eating in PSHE. The immersive wallpaper has been used for mindfulness training in our LEEP (Learner Effectiveness Enhancement Programme) sessions and creative writing in English. The TV and Apple TV has been used for students to present their work from their iPads using Airplay and by the staff to demonstrate new skills such as how to use an app.

What has this meant for other staff using the room? It is a versatile space so staff have used it instead of their traditional classroom. For instance, the English department have used it to create presentations on Alcatraz with low ability boys who they found difficult to engage (See page 10) The tables are round so it more conducive for collaborative learning and they are easily moved because they are on castors so the room can be changed for more active learning as seen in the examples on pages 11 and 12 above.

Are you utilising plants, colours or images that link to the outside world?

Yes, there is immersive wallpaper with a forest scene, as can be seen in the video.

## **Help improve building function**

Is the space able to accommodate different organisational structures or pedagogies over time?

We have had a 1:1 iPad scheme running successfully for the last 4 years and there is every intention for this to continue. The design of the room was based on using digital technology to enhance learning. We are also a TEEP Ambassador school and one of the 5 underpinning elements is the effective use of ICT. The room is also designed for effective collaboration between staff and students as well as students and students. Collaborative learning is one of the 5 underpinning elements of the TEEP model.

How well does the design allow for the future expansion of the school? Ideally, if school funding allowed, we would use this room as a model for all classrooms within the school.

Is the space accessible by all, and have a clear way finding and signage?

No, this is something we have to work on. We need a sign for the door and it needs to be included on the school map.