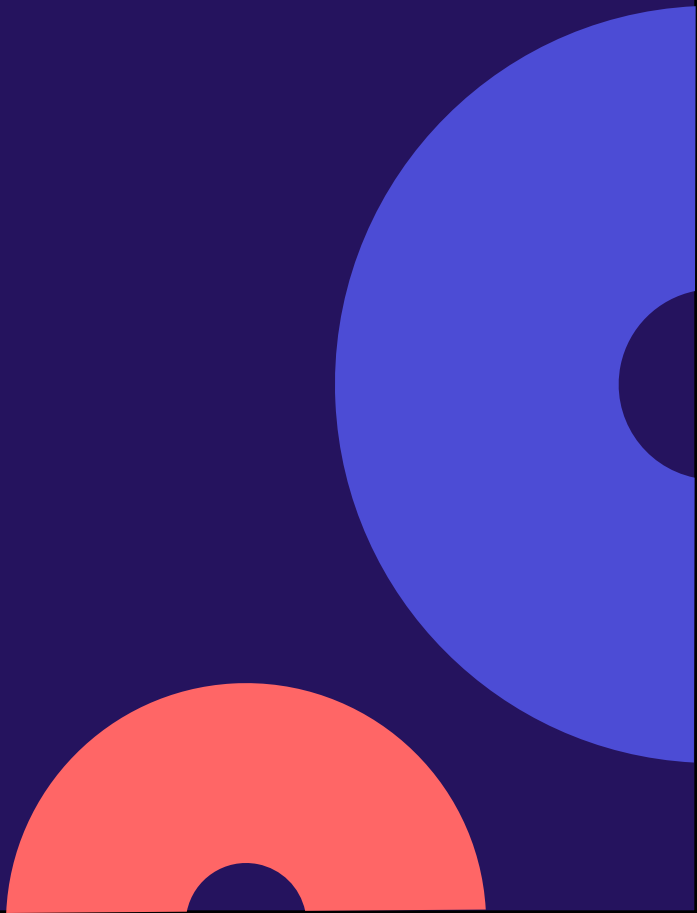


Focus on VFX

60 - 90 minute lesson
Age 11 - 18



Teacher	Subject:	Age range:	Lesson timing:	Any other notes
	PHSE Art Maths Computer Science/IT	11-18	Ideally, 60 minutes is recommended. Can be extended to accommodate your school lesson timings.	
<p>Previous knowledge through questioning.</p> <p>LO: To be able to apply some fundamental concepts of photography and visual effects.</p> <p>AIM: To develop an understanding of the relationship between scale and the distance between the camera and subject. To gain an introductory knowledge of light and shadow in photography and the principles of image compositing.</p> <p>Materials: Paper or sticky notes, pencils/pens, tape measure, a phone with camera or any digital camera, the ability to move photos from camera to computer (e.g. USB/memory card)</p>			<p>CURRICULUM LINKS</p> <p>Literacy: Communicating in teams to interpret and problem solve scale and image composition.</p> <p>Numeracy: The use of mathematics in relation to scale and perspective.</p> <p>Gatsby benchmarks:</p> <p>Benchmark 2 - Learning from career and labour market information.</p> <p>Benchmark 4 - Linking curriculum learning to careers</p>	
<p>Adults: One teacher should be available for this lesson.</p>				

Time – Task/Discussion - Slide	Key/hinge questions	Measures of achievement
<p>Slides 3-8</p> <p>Slide 9</p> <p>What is VFX (visual effects)?</p> <p>Often confused with Special Effects (SFX) but not the same. Special Effects are practical effects created on set such as controlled explosions or prosthetic make-up techniques. Visual Effects (VFX) are entirely computer-generated images (CGI). VFX is used for several reasons:</p> <ol style="list-style-type: none"> 1. Something is too dangerous/impractical to achieve on set 2. Something is too expensive to achieve on set 3. Something simply cannot be achieved in real life (dragons or dinosaurs for example!) <p>Let's talk through some of the key job roles in VFX:</p> <p>Slide 10</p> <p>Concept Art – the first step of the process. Involves digital drawings using software such as Photoshop or Illustrator. Used to quickly agree designs/concepts with the director. Concept Artists typically have an arts background having studied subjects such as Fine Art, Illustration or Graphic Design.</p> <p>Slide 11</p> <p>Asset Artist – the people who create the computer-generated objects, props, environments or creatures/characters. They create following similar techniques to sculptors so quite often have artistic backgrounds. However, all of the characters and creatures are built anatomically correctly so an understanding of biology and anatomy is really important. When creating environments, an understanding of both architecture and architectural history is important as well as an understanding of the geography of the natural world.</p> <p>Slide 12</p> <p>Animator – the people who make our computer-generated characters and creatures move or come to life. Often have enjoyed animation since they were a child – creating animation flip books or stop-motion animations with plasticene. However, some also enjoyed performance/acting and use that skill by performing through digital characters or creatures.</p>	<p>Introductory quiz with answers</p> <p>What is VFX?</p> <p>What is the first step in creating VFX?</p> <p>What are the kinds of things an asset artist might create?</p> <p>How might acting skills be used in animation?</p>	<p>Engagement in topic</p> <p>Familiarity with terminology/concepts</p> <p>Comprehension of the relevance of art in creating VFX.</p> <p>Comprehension of the variety of computer-generated objects, characters and environments that feature in the media.</p> <p>Understanding the principles of animation and the relationship between a flipbook and 3D animation.</p>

Slide 13	Key/hinge questions	Measures of achievement
<p>Creature FX Artist – the people who create the fur, hair or clothing for digital characters or creatures. This is quite a technical job as it involves computer simulation. We simply couldn't hand animate 6 billion individual hairs and so we must simulate their movement instead. This involves an understanding of physics principles such as gravity, velocity and force but also involves some mathematical formulas and some Python scripting.</p>	<p>What makes creature FX more technical in nature?</p>	<p>Understanding how maths and physics might relate to creating images.</p>
<p>Slide 14</p> <p>FX Artist – the people who create all sorts of natural phenomena required for a scene. This could be elements such as rain, snow, smoke, dust, blood, water, fire, destruction or even magic. The skill set is the same as creature FX because this team also rely on computer simulation to achieve the results they need.</p>	<p>What are some examples you can think of FX in programmes you have seen or enjoyed?</p>	<p>Comprehension of the prevalence of additional VFX in film and TV.</p>
<p>Slide 15</p> <p>Lighting & Compositing – lighting involves replicating the on-set lighting conditions so that they can be applied onto the computer-generated objects or characters. Compositing is finalising the image – combining the live action footage with the computer-generated images to make the final picture that we all see on screen. Both teams share skills with photography – understanding how cameras work, colour theory, the physics of light and what makes for a balanced and attractive image.</p>	<p>How might you find out what the lighting conditions are in a particular environment?</p>	<p>Understanding how images are finished.</p>
<p>Slide 16</p> <p>Visual effects companies are businesses – just like businesses in any industry. And so, they don't just need creatives and computer scientists, they also need ...</p>		
<p>Slide 17</p> <p>Administrative roles such as project managers and receptionists.</p>		
<p>Slide 18</p> <p>Marketing and IT helpdesk staff and ...</p>		
<p>Slide 19</p> <p>Support staff such as human resources and finance. There are lots of ways to work in a creative environment but not in a creative role.</p>		
<p>Slide 20</p> <p>All the images in this presentation are from film and TV projects. But visual effects artists don't just work on film and TV. They also work for architectural firms, in games companies, in medicine, museums, the justice system and for theme parks. There are lots of industries that require these skill sets.</p>	<p>How might visual effects be used in industries like architecture or medicine?</p>	<p>Comprehension of the application of this skill set across the economy.</p>

<p>Slide 21</p> <p>Hopefully this has helped to demonstrate that all these commonly held myths about the visual effects industry simply aren't true. Some of the most successful visual effects companies in the world are based right here in the UK and they represent one of the fastest growing parts of the UK economy. It is also an industry that is embracing AI use but whose jobs are relatively AI proof.</p> <p>Slide 22</p> <p>Discussion – either large group or small groups depending on the environment.</p> <p>Slide 23</p> <p>If this industry sounds interesting, then what tools or skills could you be developing now?</p> <p>Slide 24</p> <p>Finishing on a high! Why should your students consider this industry as a possibility?</p> <p>EXTENSIONS/TASKS</p> <p>Work through attached worksheet with whatever time remains. This is a sheet that students can take away with them too so that the engaged/interested ones can continue to work on the tasks at home as all of them are achievable with limited equipment/tools.</p> <p>Plenary</p> <p>If students have any additional questions or would like more resources you can direct them to:</p> <ul style="list-style-type: none"> • Screenskills Career Maps: https://www.screenskills.com/job-profiles/ • BFI Academy Short Courses: https://www.bfi.org.uk/bfi-film-academy-opportunities-young-creatives/courses/bfi-film-academy-specialist-courses • <u>The Rookies</u>: A hub for up-and-coming creatives, offering challenges, short courses, and feedback • Free online mentoring: https://www.accessvfx.org/mentors. • Apprenticeships: https://www.nextgenskillsacademy.com/course/apprenticeships • Online Short Courses: https://www.escapestudios.ac.uk/course-finder/?refinementList%5B-type%5D%5B0%5D=3&page=1 • Degrees: https://www.therookies.co/schools/search?search=&sort=&certified=&ranking=231&certification=&program=&delivery=&dicipline=&country=United+Kingdom 	<p>Key/hinge questions</p> <p>Are there any of these myths that you still think are true?</p> <p>What are some the useful tools for creating VFX?</p>	<p>Measures of achievement</p> <p>Busting misconceptions about the industry.</p> <p>Checking learning.</p> <p>Providing stretch/next steps for those who are really interested.</p>
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