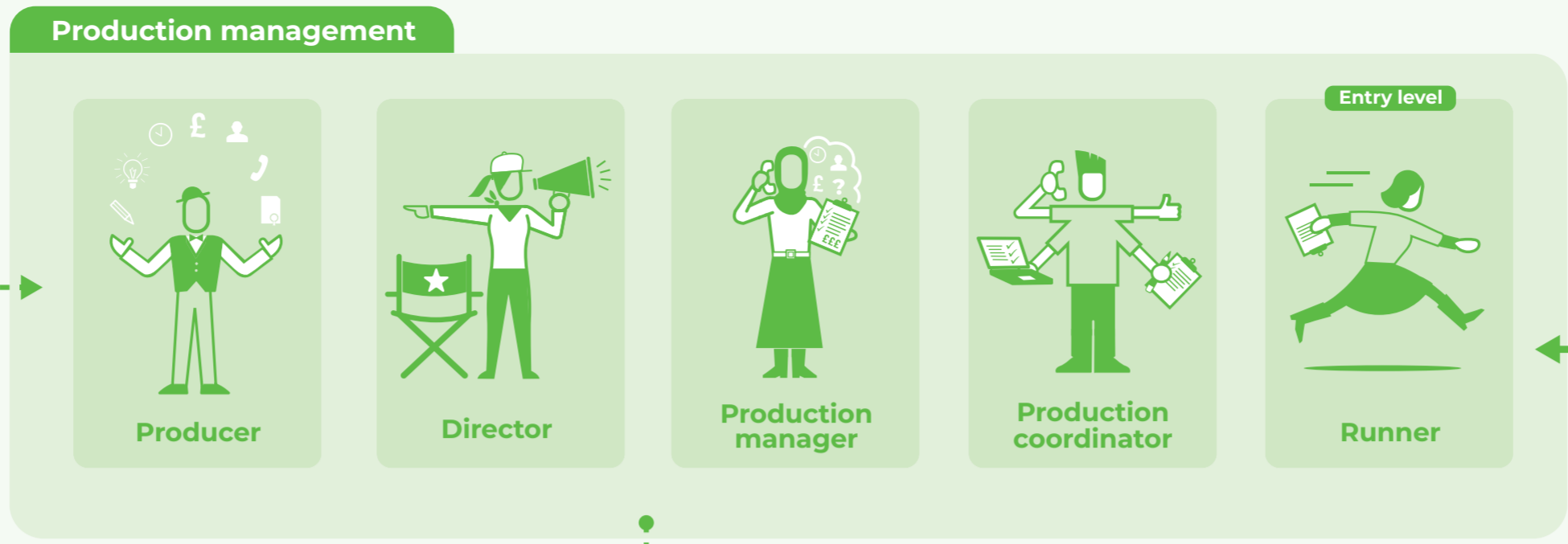The green stamps show the routes in. Remember, you can move from one department to another.

Follow the arrows to learn how an animation is made.

Production management
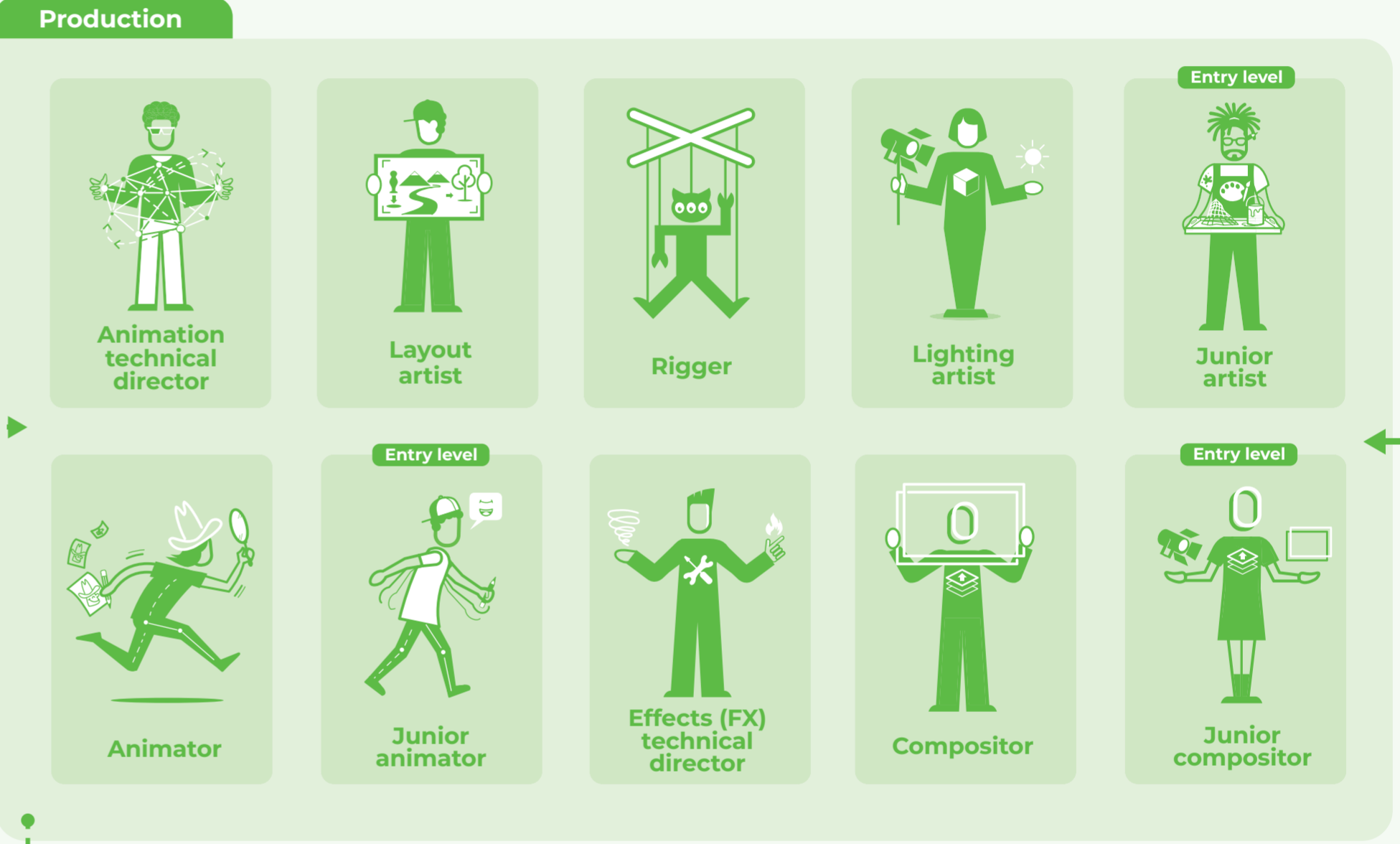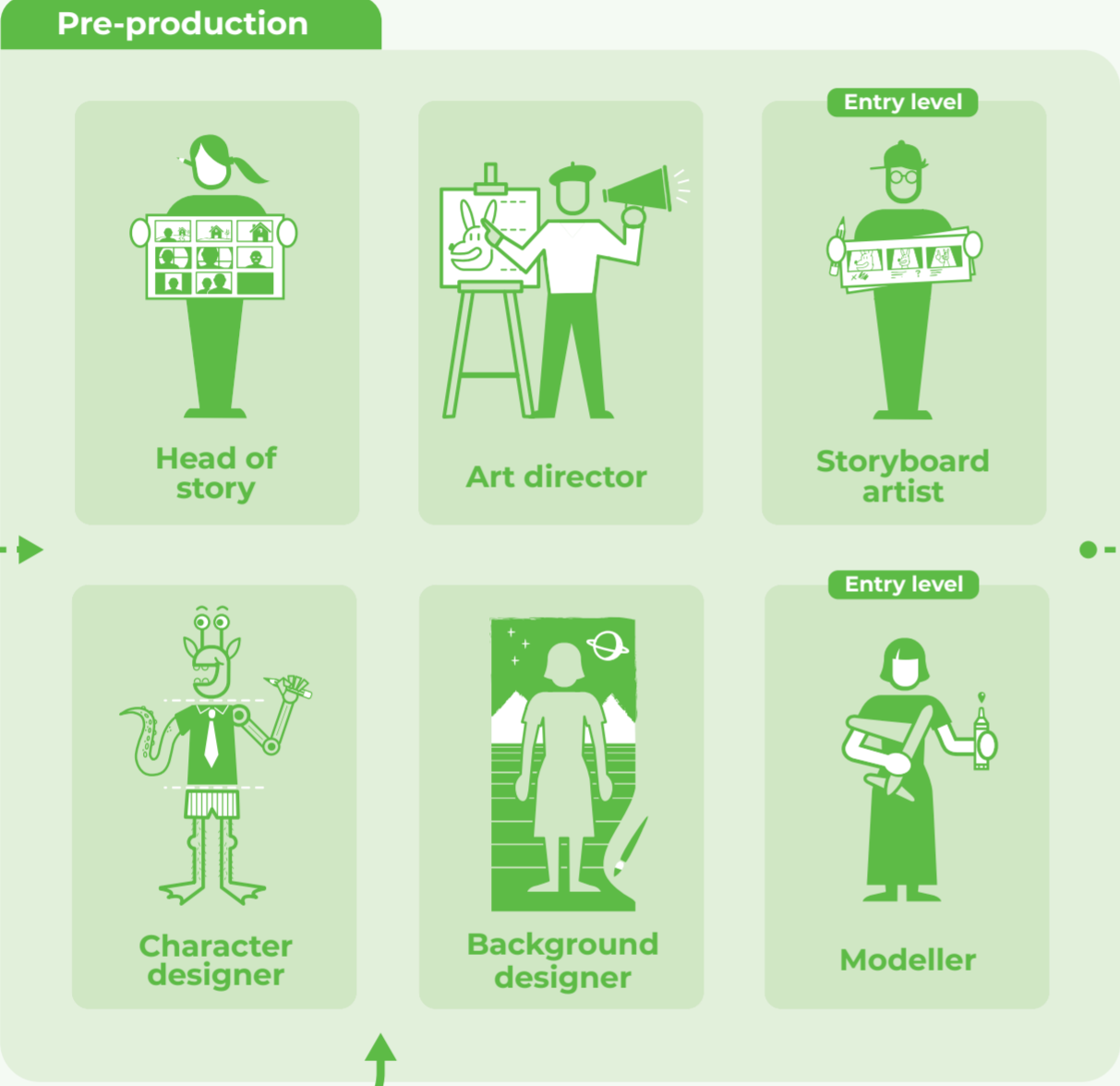
Producer

Director

Production manager

Production coordinator

Entry level
Runner

Multiple entry routes

Development

Film or literature route

Writer

Art, film, graphic design route

Concept artist

Pre-production

Head of story

Art director

Entry level
Storyboard artist

Character designer

Entry level
Background designer

Entry level
Modeller

Production

Animation technical director

Layout artist

Rigger

Lighting artist

Entry level
Junior artist

Animator

Entry level
Junior animator

Effects (FX) technical director

Compositor

Entry level
Junior compositor

Animation, art, graphic art routes

Post-production
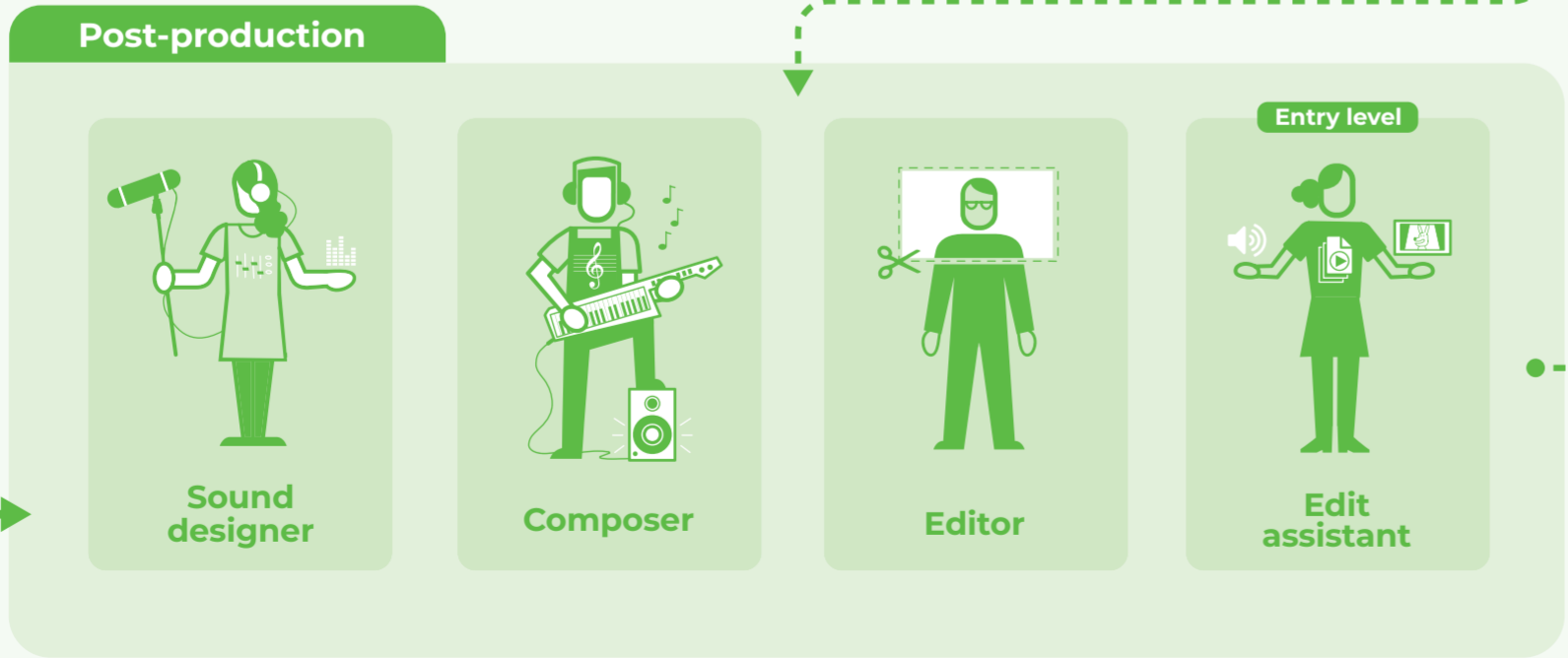
Art, graphic art, film routes

Music, audio, art routes

Sound designer

Composer

Editor

Entry level
Edit assistant

Delivery and distribution

Sales executive

Marketing executive

Entry level
Marketing assistant

Multiple entry routes

Animation industry career map

Go to ScreenSkills for more details:
www.screenskills.com/careers-in-animation

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The animation industry

Animation is an industry in which the UK excels. Think of the plasticine characters in *Early Man*, the hand-drawn figures in *The Tiger who Came to Tea* or the computer-generated *Digby Dragon*. These productions, and many more, have established the UK animation industry as one of the best in the world.

What animation is

Animation is the process of displaying still images in a rapid sequence to create the illusion of movement, using knowledge of the way that a character or object moves to make them believable, and showing emotion to tell a story.

The different categories of animation include:

- **Hand-drawn animation**, in which each frame is drawn by hand
- **Stop-motion animation** (also known as stop-frame), in which different materials, such as clay, puppets, paper and photographs, are used to make objects that are moved and photographed frame by frame
- **Computer-generated animation**, in which frames are drawn on a computer, either in 2D, 3D or a mixture of the two, and then altered using animation software

Though the technical skills needed to create the frames vary depending on the type of animation, the understanding of the performance, characters, emotion and story is the same.

UK animation studios

There are various sizes of UK animation studios. Approximately one third of animation companies in the UK have fewer than five full-time employees, one third have more than 50 and the rest are somewhere in between.

The output and remit of studios vary. Some specialise in a particular type of animation, while others are capable of several; some specialise in making content for a particular audience, such as children; some specialise in making content for TV channels (such as CITV, CBeebies, Cartoon Network and Nickelodeon), while others make films shown in cinemas.

Increasingly, animation studios make content for on-demand and subscription services like Amazon, Netflix and Sky, and for apps like Azoomee, Hopster and YouTube Kids. Studios also provide animation services for commercials, for education videos, for games, visual effects (VFX) and virtual reality companies.

Animation industry skills and jobs

The skills needed to work in animation are broad and varied. Within a smaller studio, it's not unusual for an individual to have a wide spectrum of skills and be asked to work across a number of roles. In a larger company, it's more likely that people will specialise.

Less than one third (27%) of people in the animation industry work outside London. However, there are hubs of animation companies in Bristol, Cardiff and Manchester. Have a look at Animation UK's directory to see where the employers are (**animationuk.org/directory**).

There's a shortage of animators, storyboard artists, artists and technical directors in the industry, so people with those skills are likely to be in high demand. There's also a need for creative people with business skills; producers who can organise an animation pipeline and raise the money for productions.

Explore the roles that might be right for you. Go to **screenskills.com/careers-in-animation** to find all the roles listed on this map with full details of how to get into each role.

What animation employees earn

The median salary within animation is £42,280. That means that if you lined the salaries up in a row, starting with the lowest and going up to the highest, then £42,280 is the mid-point. There are wide variations depending on job role and level of seniority. Entry level roles tend to be between £16,000 and £20,000 and there's the potential to earn considerably more as your career develops.

It's worth noting that a large proportion of people who work in animation are self-employed. It's estimated that half the people are fulltime staff (53%), 4% are interns, 3% are part-time employees and 1% are apprentices. The other 39% are freelance.

Start creating

If you want to be an artist or an animator, learn the skills through formal education or through teaching yourself. Sites like Khan Academy's Pixar in a Box can show you how. You can start honing your skills from an early age through the wide availability of free industry-standard software like Blender or Synfig. Share your creations through forums, blogs and video sharing sites. Get feedback.

Make a showreel of what you have made. Employers will want to see a portfolio of your work in addition to your formal qualifications. Visit ScreenSkills' page on building a portfolio for details of how to do this (**screenskills.com/portfolio**).

Choose the right course

In general, animation is a combination of art and technical skills, so, if you can combine art or art and design with physics, maths or computer programming in your A-levels or Highers, you have the good basis for a career. It's also worth considering vocational qualifications that focus on animation, digital media production or graphic design. In production and marketing roles, good grammar and writing are important too.

The animation workforce is highly qualified, with 93% of workers having a degree and 26% also having a post-graduate degree. If you want to take a degree, make sure you take one that will best equip you for a job. Have a look at ScreenSkills' Select list of recommended courses at **screenskills.com/courses** and select one in animation. We recognise courses where they offer training in the relevant software, dedicated time to building a portfolio and have strong links with the animation industry.

Get an apprenticeship

Alternatively, you might be able to get a job as an apprentice. An apprenticeship is a job combined with training, so it's a great opportunity to earn as you learn. Apprenticeships as junior animators and storyboard artists are in development. And there are apprenticeships available for 2D artists, post-production technical operators, content producers, marketing assistants, project managers and accountants, all of which are needed in the animation industry.

Make a list of the animation companies for which you would like to work. Check their websites to see if they are advertising for apprenticeships or junior roles.

Get to know the industry

In the animation industry, the most common way in which people get jobs is through word-of-mouth – 54% of employers say it's their most used means of recruiting. The second most common way of getting a job is through company websites (34%) and then through social media sites (18%).

So check out the websites of animation companies. Sign up to newsletters. Read industry publications. (Look at the list of recommended websites on the back page of this map.) Watch animations. Find out who made them by looking at the credits.

Go to events like ScreenSkills Open Doors to meet people in the industry (**screenskills.com/events**). Find out where there are animation festivals or related markets and conferences and go to them. Find animation groups on sites like Facebook and LinkedIn. Start having conversations.

Look at the websites of animation companies and see if they offer work experience. If they don't mention it, then write to them and ask.

Develop yourself

Whichever route you choose, take an active role in your own career progression. Developing your skills, experiences and networks will be just as important as gaining qualifications.

Production management is the department that keeps the ideas and assets moving through the pipeline.

The animation pipeline

Development

This is where the idea is generated, a script is drafted, a budget is worked out and the look and overall vision are thought through. The target audience is defined. Finance is raised to fund the project and the right people get onside. Getting the right people involved can mean travelling to trade markets, film festivals, and networking events – all over the world, when required.

Pre-production

Once the funds and the legalities have been agreed, an animation project is greenlit and goes into pre-production. This is where the script is honed, the animation is storyboarded and design work for everything in the script is agreed. It's vital to get as much thinking done as possible during the pre-production stage because it becomes much more labour intensive – and therefore expensive – to change mistakes further down the pipeline.

Production

This is where the assets are built. The characters are rigged and animated. Visual effects are added. Any problems with rendering are sorted out. The layers are put together (compositing) and a rough edit is assembled.

Post-production

In post-production the final edits to the animation are made. The music is put in. And the whole thing is rendered, colour-corrected (graded) and quality controlled. Different versions of the production are made. If the animation is going to be broadcast, it gets delivered to the broadcaster at this point.

Sales and marketing

Once a project is completed or nearing completion the sales and marketing team makes sure the audience knows about it. They do this through making a campaign involving trailers, newsletters, billboards and posters. This team is also responsible for the merchandising, which is a particularly important way in which animation companies recoup costs.

Careers in
The animation industry

Production management

Producer
Has overall responsibility for an animation. Producers use the script and the concept art to raise the money for a film or TV programme by getting financial backing from distributors or broadcasters. They propose a budget and appoint a director. Producers also have a deep understanding of animation and its creative possibilities. They allow the animators the freedom to experiment, at the same time as keeping the production on schedule.

Director
Holds the creative vision of an animated film or TV series. Directors work out the style of the animation; its mood, how it will look and how it will sound. When an animation involves voice actors, directors work with them to get the kind of performance that they need. They are also responsible for the quality of the edited film. When all the animation frames have been assembled and edited with the sound added, the director signs it off.

Production manager
Responsible for managing the production schedule of an animation and ensuring that all the deadlines are met. They report to the producer and work closely with them to oversee the crew. They are often the main point of contact with any third-party contractors such as post-production houses or studios.

Production coordinator
Keeps everything in the animation pipeline running smoothly. Production coordinators are responsible for keeping a record of all the assets that are created to make the animation. They are responsible for checking stocks and reordering studio supplies, as well as organising couriers and shipments. They also help with accounts and keep the petty cash.

Runner – entry level
Does any administrative jobs as the most junior member of the department. Runners take notes in production meetings and do general office jobs like answering the phone, filing paperwork, entering data, booking travel and accommodation.

Development

Writer
Writes the script. Writers come up with a story, outline what happens in each scene and then write all the dialogue with very specific actions. The script can be used as the basis for the animation. It's also used to sell the idea for a film or TV series to an animation producer or studio.

Concept artist
Draws the very first sketches of the animation, conceptualises how it will look. The artwork of concept artists is used as a reference point for the animators and designers further down the animation pipeline. Like the script, the concept art is used in the pitch to sell the film or TV series, before production is underway.

Pre-production

Head of story
Turns the writer's words, the concept artist's drawings and the director's vision into a visual representation of the story. Heads of story produce series of panels to plan the action, staging and camera choices. They work closely with the director to develop the story, often contributing to the writing and editing of a film or series. They create animatics, which is where they put the storyboards into an editing program and these are cut together with the correct timing and pace of the film, including basic sound effects, dialogue recordings and a scratch soundtrack. This is used as the basis for the production.

Art director
Is responsible for the visual style of the animation. Working with the concept artist, art directors decide how the characters, props and environments are going to look. They supervise the other artists, such as modellers, character designers and background designers. They are responsible for ensuring all art work is of a high quality and in line with the director's vision.

Storyboard artist – entry level
Helps the head of story create a storyboard, the visual representation of the animation's narrative. Storyboard artists may be asked to complete partly-drawn panels and ensure they are in the right style for the animation project. They might fill in background details or revise scenes already drawn by senior artists.

Character designer
Creates the look of individual characters. They draw them working from the script, the director's notes and the concept art. They communicate the characters' personalities through their facial expressions and physical poses.

Background designer
Designs the scenery where the animation happens. Background designers use the storyboard panels as a basis from which to create detailed backgrounds for each scene.

Modeller – entry level
Translates concept art, character designs and environment designs into models ready to be animated. In stop-motion animation the role is known as 'model maker'. They make models from materials, such as Plasticine or metal. In 3D computer-generated animation, they are known as 'modellers' and make models with computer software.

Production

Animation technical director (TD)
Programs digital tools to help the artists. Animation TDs work with the animation software, developing and testing tools, custom features and add-ons, making sure it does the best job possible for the animators and layout artists.

Layout artist
Decides the depth and perspective of what's being displayed on the screen. In 2D hand-drawn animation, layout artists do this by drawing the backgrounds and showing the relative size of the objects in the foreground. In 3D animation, layout artists are the directors of photography in a virtual space. They make decisions about lenses, camera angles and camera movements and use 3D animation software to affect this. Layout artists begin their work once the storyboard has been agreed.

Rigger
Creates digital skeletons for 3D computer-generated (CG) characters. These skeletons, or rigs, are like puppets that define the range of movement of a character or creature; such as how a big cat runs or how a person's face moves when they sing. Rigs are used by animators as the basis for the movements of their characters.

Lighting artist
Lights the scenes in an animation. Lighting artists decide what lights to use and where to place them. They use software to create the lighting effects, showing the source of the light and enhancing the mood, tone and depth of a scene.

Junior artist – entry level
Might work in pre-production, production or post-production with any artist roles. Junior artists could be junior layout artists, junior lighting artists or junior modellers. They might help with rigging, rendering and compositing too. Some help with editing and ensuring the synchronisation of frames and audio.

Animator
Makes still images that are played in a rapid sequence to create the illusion of movement. There are different types of animators. Some draw frames by hand in 2D, others create 3D animations using computer software and others move models by tiny amounts, one frame at a time. But whatever the medium, the basis of animation is the same. Animators know how characters show emotion. They have a good, technical understanding of the way things move. They make a believable world through the blend of realism and artistry.

Junior animator – entry level
Helps senior animators create the animations. In 2D animation, they might be called inbetweeners or clean-up artists, where they fill in the frames produced by a senior animator or apply the final 'line' to a senior animator's drawings. In 3D animation, they help test rigs, research the way things move and film them for reference. They animate small scenes or do tasks like lip-syncing, in which the movement of a character's mouth is matched to the voice track.

Effects technical director (FX TD)
Makes physics-based digital effects, such as explosions, smoke and water, for the artists to use in their shots and sequences. They make sure the effects look believable and are consistent with the style of the animation so that they blend seamlessly with the other art assets.

Compositor
Creates the final image of a frame, shot or sequence. Compositors take different elements, like the animations, background plates, graphics and effects and put them together to make a believable picture. They make sure the shots are well composed and they enhance the lighting. They are also responsible for continuity, ensuring that the art from different sources and different artists looks the same. They ensure the overall look of the animation is in line with the director's vision.

Junior compositor – entry level
Works closely with the compositor to help create the final image. Junior compositors take on simple tasks like matching colours and adding in shadows. The also help with rendering and ensuring the quality of the rendered assets. The junior compositor role is sometimes combined with a junior lighting artist role. Junior compositors might help any of the artists or technical directors in the production department.

Post Production

Sound designer
Creates the soundscape for an animation. In animation, there are no natural sounds to work with (as there would be when filming live action) so sound designers create all the sounds from scratch. They might record sounds from real life or create sounds on a computer. They have to be highly imaginative, especially when designing the sound of a fantasy creature or environment.

Composer
Writes original music for an animation. Composers write music to communicate the atmosphere, emotion of the characters and the story. They are usually given a brief in pre-production at the storyboarding stage, when the storyboard is edited to a soundtrack (animatics). They compose music for the animatics and keep revising it until they have the final score, responding to feedback from the director, producer and editor.

Editor
Crafts the telling of the story from the start of the production to the finish. Editors work with the writer, director and producer, discussing the script and storyboard. They plan the different scenes and shots. Once the production work has been done, they arrange the final footage and prepare a rough cut. They add in the sound effects and music, and prepare a director's cut and final cut.

Edit assistant – entry level
Supports the editor in putting all the parts of the animation together in the right order. Edit assistants keep a log of all materials coming into the editorial department. This can include storyboard panels, animated scenes, dialogue and sound effects, and the musical soundtrack. They output the film in different formats for clients and other departments as required. Sometimes they are asked to cut rough assemblies for the editor.

Sales and marketing

Sales executive
Works on behalf of the producer to license the rights of the production across the world, so that the animation can be screened. Sales executives negotiate fees and commercial terms with platforms or channels. They estimate how much money the production will make at the box office or through advertising or the sale of merchandise. They are also responsible for promoting the animation at festivals and TV and film markets.

Marketing executive
Persuades people to watch the animation. Marketing executives plan, develop and implement marketing campaigns to let audiences know that a production is about to be launched or broadcast. The campaign might involve print, TV, cinema, promotional events and digital advertising. They write copy and develop promotional material.

Marketing assistant – entry level
Does anything to help a marketing campaign, from scheduling tweets to ordering lunch for meetings. Marketing assistants help with proofreading copy, filing, and inputting contact details into research spreadsheets. They often coordinate market research projects and use the data to help assess the effectiveness of campaigns to help with future ones.