



Where can studying Product Design take you?

Introduction

At The Careers & Enterprise Company, our mission is to help every young person find their best next step.

My Learning, My Future is a suite of resources that has been developed by The Careers & Enterprise Company in partnership with Skills Builder to help you speak confidently about careers related to your subject.

This guide has been updated with new content to reflect the changing pathways and skills needed by employers.

Benchmark 4

Linking curriculum learning to careers. Bring your subject to life by providing real-life examples from the world of work to help motivate and inspire students.

Learn more

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How to use this guide

In this guide and supporting documents, you'll find resources to engage your students in curriculum learning, supporting work towards Benchmark 4, by highlighting the relevance of your subject to future careers and opportunities.

Explore the five key areas of the guide to inspire your students about where your subject can take them in the future.

Essential Skills

Learn how you can engage with Skills Builder to help students identify and develop essential skills linked to your subject.

Pathways

Take a look at a wide variety of resources that focus on the pathways a young person can follow to a career linked to the subject.

Activity ideas

Create some 'buzz moments' in every lesson by highlighting relevant careers stories, or relating topics or essential skills from your subject to future opportunities.

Why study **Product Design?**

Access key resources that link to your subject area that can be used in your lessons to help your students explore future careers.

Careers in the curriculum

Discover resources and inspiration to link careers to the curriculum, employer engagement and extracurricular opportunities.



Why study Product Design?



Why Study Product Design?

This is your chance to share the passion you have for your subject. Here's five popular reasons teachers give as to why Product Design should be in the school curriculum:

- Practically everything you see, touch and use in a day is designed by someone – this is product design.
 From toys to fashion, architecture to jewellery and packaging
- Designers are responsible for the success or failure of every product and how it impacts on consumers who use them as well as designing considering environmental issues
- Product Design brings together the disciplines of art, business and engineering as you combine aesthetics, functionality and finance to design and make a product
- Product Designers are in demand and can work in a variety of fields: design, research, art, desktop publishing, marketing and many more
- You may become the next famous Designer, taking the world by storm with your ingenuity and become a household name

This section will connect you with key resources and links for students to explore opportunities linked to your subject area with the aim of motivating and inspiring your students about the world of work and pathways to a career using Product Design.

There are a number of examples of roles and activities to support your students to explore opportunities.



Access a student facing PowerPoint slide deck which will support you in highlighting the relevance of your subject with content taken from this guide.



Click here

Access a KS3 My Learning, My Future homework task (insert link) you can set for your students, which encourages them to research and explore roles linked to your subject.





Resources to highlight the relevance of your subject

- Why it Matters: Design resources have been designed by Loughborough University to help students to understand where studying different subjects (both post 16 and post 18) might lead
- Download What is DT poster by DT Association



BBC Bitesize Careers

Explore jobs in Manufacturing

Have your questions answered:

- How many people work in the manufacturing sector?
- How much can you earn in different roles?
- What routes can you take to get in?
- What do people currently working in manufacturing think of their jobs?



Labour Market Information

- The <u>LMI for All</u> portal provides high-quality, reliable labour market information (LMI) to inform careers decisions
- Help your students to find out what a job involves and if it is right for them with National Careers Service
- National Careers Week <u>Future of</u> Work Guide
- Help KS3 students find out more about jobs and careers in <u>Product</u> Design
- inspire KS4 students with the world of work through careers in <u>Product</u> Design
- LMI and study routes into STEM careers



OAT Futures

Check out how students have used their Product Design in the real world



Prospects

Explore Product Design related job sectors and job profiles.

- Responsibilities
- Salary
- Qualifications
- Skills
- Work experience
- Career prospects
- Related jobs and courses



Explore a career as a...

There are many more roles and careers linked to STEM and this guide contains the resource and support to explore many more opportunities. A small selection highlighted below and more information can be found via STEM Learning's careers resources



Woodworker/Carpenter

Furniture Makers make and restore items like chairs, tables, beds and display cabinets.

See case study 1

See case study 2

Visit National Careers Service to learn more







Industrial Designer, 3D Designer, Prototype designer, Inventor: they design and manufacture products and accessories.

See case study 1

See case study 2

See case study 3

Visit National Careers
Service to learn more

Architectural Assistant/ Technologist

Architectural Technologists manage all stages of the technical design and planning process of building projects.

See case study

Visit National Careers
Service to learn more



My Learning, My Future



Product Design Engineer

Design Engineers improve product performance and efficiency while researching and developing new manufacturing ideas and systems.

See case study 1

Visit National Careers
Service to learn more

User Experience (UX) Designer

UX Designers use research to understand their users and create websites, applications and software to meet their needs.

See case study

Visit National Careers
Service to learn more







Packaging Technologists design and develop packaging for different products.

See case Study 1

See ccase Study 2

Visit National Careers Service to learn more

Why not encourage your students to become a teacher?



As you know teaching is a career like no other, where your voice, passion, background and how you view the world is used to inspire young people.

Here are a couple of case studies to inspire you to share your story with your students. You might also then select one to share with your students.

- See case study: Shaniqua's story
- See case study: Vijendra's story

Why teach?

Share these reasons for teaching with your students and frame them in your own words...you might start with the ones that enticed you into teaching yourself:

1. Helping shape young minds, help shape the future.

As a teacher you'll instil attitudes and beliefs that will help shape the next generation and the future. It's your chance to make an impact.

2. Turn your passion into a career.

If you love something, you'll love teaching it. There's nothing better than seeing people being inspired by the things you're passionate about.

3. The reward is always worth the challenge.

As a teacher you'll be challenged and rewarded every day. And nothing is more rewarding than knowing you've made a difference.

4. More time for what you love.

Teaching gives you more holiday than most careers, which means you have more time to explore your own interests.

5. Start on at least £25k, or £32k in inner London.

Where you take your career from there is up to you.

Why is STEM important in the wider world?

- It boosts soft skills through thinking through problems and finding solutions
- It focuses curiosity by developing more scientific questions that turn into investigations
- It helps you to see and understand the world around you
- It helps children become future entrepreneurs

What makes a great teacher?

Here's what some Year 10 students think makes a great teacher – do your students agree?

What makes a great teacher?

Salary and benefits

The next generation of teachers will be entitled to a competitive salary, generous holidays, and a substantial pension.

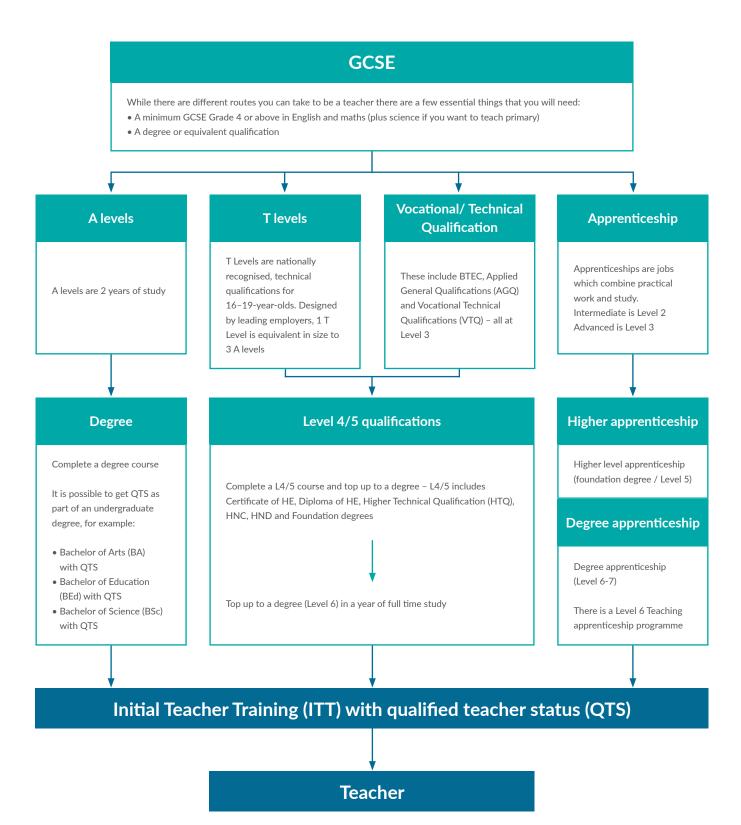
You'll get more days holiday than people in many other professions. In school, full-time teachers work 195 days per year.

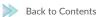
For comparison, you'd work 227 days per year (on average) if you worked full time in an office.

Find out more: Teaching salaries and benefits

Be mindful that when you share your route into teaching, you need to balance with the other options.

Here is an infographic resource to share with your students which shows the options and journey they could take.







Pathways

Pathways

Whether students know where they are headed to in the future or not, knowing the work and study choices available to them is a great place to start.

Get the Jump: Skills for Life is a campaign to help young people make their next step in education and training. It raises awareness and understanding of all the different education and training pathways open to young people at post-16 and post-18.

Many young people may feel confused or daunted by the post-16 or post-18 choices landscape and the campaign signposts students to further information around all potential options.

Here are two visual displays you may also find helpful:

<u>Framework of Qualifications:</u> This is a useful visual display which shows where different levels of qualifications sit with each other.

Options map: This is a useful visual display of the different pathways.



Resources to highlight pathways from your subject

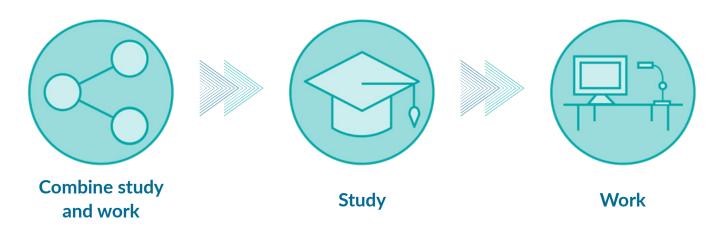
- Download My Learning, My Future student facing presentation deck.
- Download an overview of apprenticeship opportunities in Science, Technology and Engineering
- <u>Discover Creative Careers</u>: Bringing together careers information and opportunities from creative organisations in one explorable directory
- Explore careers in Product Design

Example Key Sector Bodies:

- DT Association
- From here download a host of resources, from posters mapping careers

Get the Jump: Skills for Life

There are three types of routes students can consider:







Combine study and work

Apprenticeships

Apprenticeships are real jobs that allow young people to earn a wage while they learn.

They can take between 1 and 5 years to complete, depending on the level.

To start an apprenticeship, students will need to:

- Be 16 or over
- Live in England
- Not be in full-time education

Students can apply for an apprenticeship while they are still at school.

Watch this video on ideas for

Apprenticeships in Product Design. Here are some possible apprenticeships available to study:

- Trainee Designer
- Room Designer
- Furniture Designer
- Junior CAD Designer
- Games Designer
- Design Operations
- Product Design and development
- Junior Product Design
- Engineer
- Construction

T Levels

A T Level is a nationally recognised qualification for 16–19-year-olds that lasts for two years. Leading businesses and employers have helped design T Levels to give young people the knowledge and skills they need for work or further study.

Here are the T Levels aligned with your subject:

T Level Digital Production, Design and Development

T level Design and Development for Engineering and Manufacturing

T level Engineering, Manufacturing, Processing and Control

T Level Craft and Design

Vocational Technical Qualifications (VTQs)

VTQs are practical qualifications for over 16s. They're designed to help students get the skills they need to start their career or go on to higher levels of education. There are a few different types and levels of VTQs,

including:

- BTECs: level 1 to 7 qualifications
- <u>Cambridge Nationals</u>: level 1 and 2 qualifications (from Sept 2022)
- Cambridge Technicals: level 2 and 3 qualifications
- T Levels: level 3 qualifications

Your students may be able to study:

- Engineering Design and Technology
- Engineering Design
- Creative iMedia
- Digital Media
- Product Design



Study

Higher Technical Qualifications (HTQs)

HTQs are technical qualifications that are approved by employers. There are many different types and are usually taught in the classroom at colleges, universities or independent training providers.

To start a HTQ, they will need to be:

- Aged 18 or over
- Live in England

There are many different types of HTQs, such as:

- Higher national diplomas
- Higher national certificates
- Foundation degrees
- Higher education diplomas

Other HTQs will be available in the future.

You may find courses on the following:

- Product Design Engineering
- Building Services Engineering
- Digital Technologies
- Engineering
- Civil Engineering
- Garden and Landscape Design
- Games Production and Design
- 3D Design
- Architectural Design Technology
- Digital Learning Design

A levels

Subject-based qualifications usually assessed by exams. They can lead to further study, training or work. You usually study A levels over 2 years.

You may find courses on the following:

- Electronics
- Computer Science
- Design and Technology: Product Design
- Engineering
- Engineering: Design Engineering
- Engineering: Mechatronic Engineering
- Entertainment Technology: Video Games

Higher education

Higher education is the name for qualifications and courses young people can take after 18. There are many different types of higher education qualifications, such as:

- Diplomas
- Bachelor degrees
- Foundation degrees and foundation years
- HTQs
- Degree level apprenticeships

Explore undergraduate courses in Product Design

- Aircraft Design
- Airframe design and Flight Dynamics
- Architecture Landscape and Garden Design
- Product Design
- Product Design and Technology
- Engineering
- Digital Environment Building
- Design and Development Engineering





Work

Supported internships with an education, health and care plan An unpaid work-based study programme that usually lasts for one year. It includes an extended work placement that lasts for at least 6 months. This will help young people take the first step from education into the workplace while gaining the skills they need to get a paid job.	Watch Saul's story: <u>here</u>
School leaver schemes Some companies offer school leaver schemes to young people who have completed A Levels. The schemes allow them to learn and train with a large company while earning a wage.	Young people need to check each company's website to see if they offer a school leaver scheme and how to apply.

Get the Jump: Skills for Life website

Interested in University league tables?

You can see at a glance the university ranking for Product Design

The table allows you to filter the top university by each category:

- Overall score
- Entry standards
- Student satisfaction
- Research quality
- Research intensity
- Graduate prospects

More information on Universities: Interested to see course level data?

<u>Discover Uni</u> includes official statistics about higher education courses taken from national surveys and data collected from universities and colleges about all their students. You can search, save and compare courses using the course comparison tool.

The data includes:

- Entry information, highlighting the qualifications held and UCAS Tariff point values students had when they were accepted onto the course
- Continuation rates for courses and a breakdown of what students are doing after one year on the course
- Data from the National Student Survey (NSS) showing experiences at university or college
- Data from the <u>Graduate Outcomes survey</u> showing employment outcomes and earnings which we publish along with earnings data for graduates 3 and 5 years after graduation from the Longitudinal Education Outcomes (LEO) dataset
- Graduates' perceptions of their work after graduating



Careers in the curriculum

Careers in the curriculum

Young people critically need support to see and understand their future and ensuring that careers learning is delivered in all subjects has benefits clearly aligned to the priorities of schools and colleges and to positive outcomes for students. There are three different approaches to careers in the curriculum to consider:



Highlight the relevance of your subject to future careers and opportunities.



Set curriculum learning within the context of careers and the world of work.



Deliver curriculum learning through employer encounters, experiences of work and/or extra-curricular opportunities.

Embed careers in curriculum teaching and learning

There are some excellent examples of how curriculum teaching can be put into the context of careers and the world of work.

- Here is a link to teaching resources to embed careers in your subject for Y7 and Y9 classes
 Causeway and STAR Academies Y7
 Causeway and STAR Academies Y9
 Causeway and STAR Academies GCSE
- Discover how to adapt your curriculum <u>Linking Careers to STEM Curriculum Guide</u> for Teachers
- Secondary and A level Design Technology
 Resources from STEM Learning
- Here is a link to Technology related resources from The Co-op Academy Trust: <u>The Co-op Academy Trust Resource for Design</u> Technology | CEC Resource Directory
- Study routes into STEM Careers: <u>Labour</u>
 market information and study routes into
 STEM careers | STEM

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Case studies linked to your subject

- STEM person of the Week is a set of five carefully chosen STEM role models that reflect diversity in the skills needed in the STEM workforce and the people who work in STEM. These resources comprise: printable postcards; printable posters and a PowerPoint presentation
- Year 9 'Designing and creating a mobile phone stand'
- <u>STEMettes</u>: Showing the next generation that girls do Science, Technology, Engineering & Maths (STEM) too at our free, fun, food-filled experiences
- NHS Careers A Z:
 Prosthetist/Orthotist

 Sterile Services Technician
 Reconstruction Scientist

Other Resources

- Overview of the UK's creative arts and design sector: Prospects.ac.uk
- Explore icould: Take a closer look at selected subjects and issues, with a selection of videos, guides and advice
- Be inspired by this <u>Careers Guide by Youth</u> Employment UK
- DT Association What is DT and here can it take you posters
- STEM home learning resources
- The Royal Academy of Engineering produce some excellent resources to support students in KS2 and KS3. Here are 10 resources, each covering a decade of the RAF, looking at STEM behind the design of aircraft:
- Neon resources for STEM

Extra-curricular Inspiration

Here is some inspiration to enhance student engagement in your subject:

- Or look at the <u>Crest awards</u> a scheme that inspires young people to think and behave like scientists and engineers
- Loughborough University HE Unboxed:
 Product Design Engineering * This box
 explores the psychological, technological and environmental impact of mobile phones.
 Covering five main session themes (see below), the aim of this box is give students an insight into the different aspects of design under the broader theme of mobile phones.

 ${}^{\ast}\mathrm{NB}$ – there may be costs associated with some of these resources

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Activity ideas

Create careers 'buzz moments' in every lesson

Young people experience 'buzz moments' when an idea hooks their attention and imagination.

Highlighting relevant careers stories, or relating topics or essential skills from your subject to future opportunities is easy to embed and can be really powerful. This should help support a culture that inspires young people about their future.

Here are some ideas to get you started:



1 Encourage students to identify a job related to your subject that they will be doing in ten years' time and ask them to present the pathway they took to that role



21 Encourage students to research local options at 16/18 in pathways related to your subject that interest them



3 Encourage students to research and present on roles of interest



Share your own careers story



5 | Spotlight nonobvious careers related to your subject



6 Challenge selflimiting beliefs and stereotypes around your subject



Know all the pathways from your subject



Highlight essential soft skills linked to specific lessons and to your subject in general

Find all eight activities (and more) ready in the slide deck for you to use with your students here

Employer engagement

You may wish to invite someone from the world of work in to support you in highlighting the relevance of your subject to careers. Use the below guidance to help you.

Key Questions	Guidance
What are you looking to achieve? Try and be as clear and purposeful as possible when framing an 'ask' of employers.	 What are the planned outcome(s)? i.e. For students and parents/carers to understand the relevance of your subject to careers To encourage students to consider pursuing your subject to GCSE level For students to have an insight into key labour market information
What benefits would there be to the employer for supporting?	For emotional reasons: Personal connection, e.g. they have family at the school or a relative works at the school or college History, e.g. they are an alumni of the school or college Locality, a local employer wants to give something back to the local area For commercial reasons: Skills shortages – to attract young people into their industry To help change perceptions of certain industries Corporate Social Responsibility (CSR) positioning – being seen to give something back
How to engage an employer?	Speak to your Careers Leader to access contacts that already exist in the school. Try: Staff networks (e.g. family, friends, Governors) Student networks (parents, relatives) Alumni network Supply chains (IT, Catering, Maintenance) If your school or college has an Enterprise Adviser, they may have wider employer links or suggestions Social media appeal with a clear ask
Format	Articulate where, when and how the encounter will take place. Would you like someone to create a video/take part in a recorded Q&A or is this is a physical invitation into a lesson?
Recording and Evaluation	How will you evaluate the session and get a temperature check of value from students and the employer? Remember to communicate activity and student register to Careers Leader as this supports Gatsby Benchmark 4 and potentially 5/6.



Essential Skills

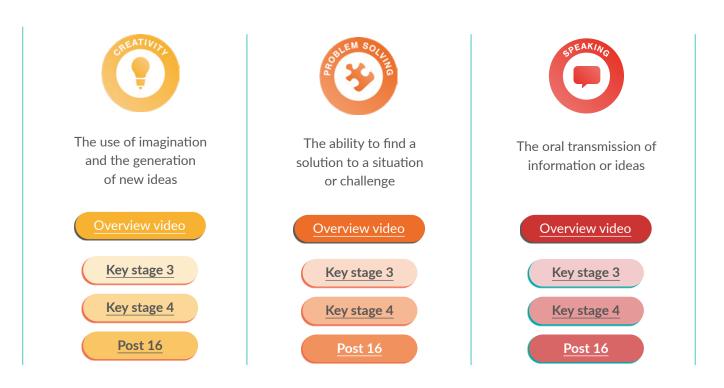
Essential Skills



Good careers provision includes building students' essential employability skills. These are the skills that you need for almost any job and they make learning easier too. Students will probably already be using these skills in your lessons, but are they able to talk about them confidently?

The <u>Skills Builder Universal Framework</u> was developed by CEC, Skills Builder, Gatsby Foundation and others to provide a common language for these 8 essential skills. It breaks down each skill into 16 teachable steps.

In Product Design, students are likely to use these 3 essential skills:



To access the short lessons and many other resources, create a free account on the <u>Skills Builder</u> Hub here.

Working with students with additional needs?



You can find many resources to support learners with additional needs in our Inclusive Learning Resource Pack here.

You can also use our Expanded Universal Framework, which breaks each skill step down into smaller stepping stones.



Quick Win

Add the Skill Icons for your subject's key skills onto your teaching slides and lesson resources



Quick Win

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Display the Skill Posters for your subject's key skills and refer to them whilst teaching



Quick Win

Reward skill successes with the Skill Certificates - be as specific as possible!









With special thanks to the following organisations for their support and insight into developing the My Learning, My Future resources:

- Amazing Apprenticeships
- BBC Bitesize
- Education & Employers, icould
- Forum Talent Potential
- LMI for All
- Loughborough University
- National Careers Service
- National Careers Week
- Skills Builder Partnership
- Success at School
- The Parents Guide to
- PwC UK
- Ormiston Academies Trust
- Prospects
- LLEP
- GOV.UK Get the Jump: Skills for Life campaign
- First Careers
- Creative Industries Federation
- Discover Creative Careers
- Loughborough University

- The Design and Technology Association
- STEM Learning
- UKSTEM
- Royal Academy of Engineering
- Youth Employment UK
- Stemettes







If you have any questions about this guide MLMF Product Design, contact us at: education@careersandenterprise.co.uk

All the resources, all in one place: CEC Resource Directory

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