Hello! We are **VPrintLab**

Academic Representative

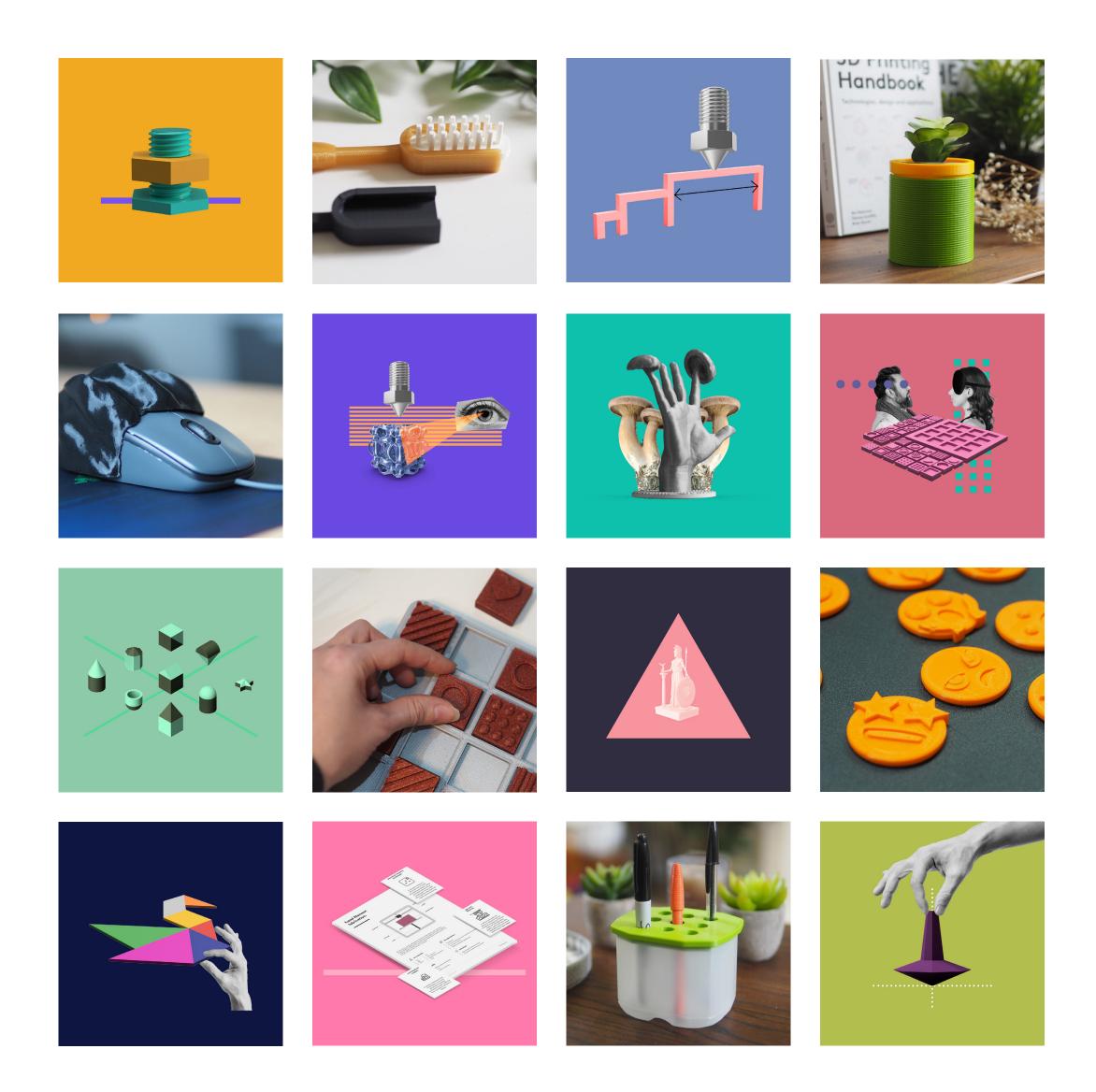


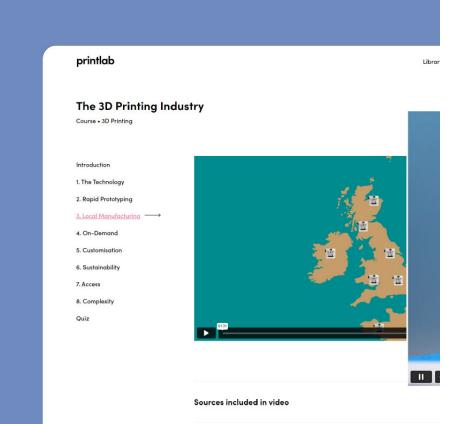
Technology Education Concepts www.TECedu.com | 800-338-2238 info@TECedu.com

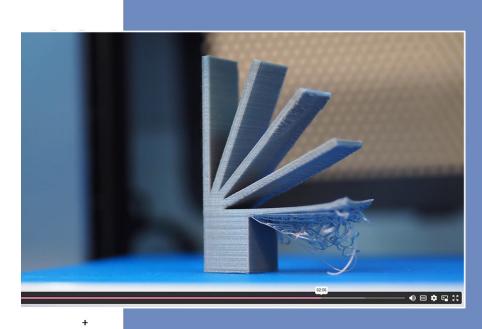
3D printing is making huge waves across every industry sector – and we believe anyone can learn how to use this exciting technology to bring value to the world.

PrintLab is an online platform of 3D printing courses, projects and design challenges.

We guide people through the full creative process to make their own unique products – from personalised homeware to architectural models, assistive technology and many other solutions that benefit from the customisation that 3D printing offers.



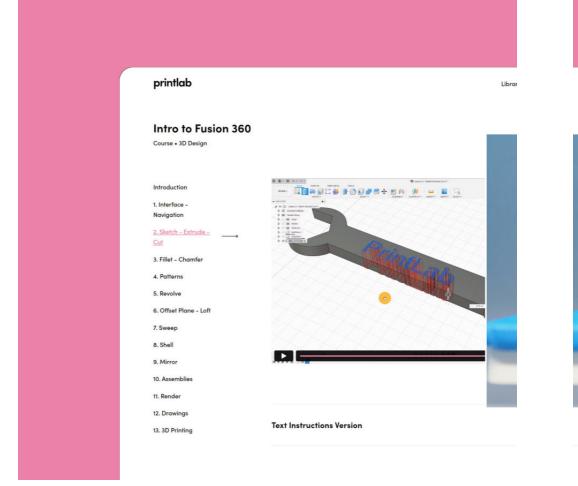




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Begin by selecting mini courses to build foundational knowledge and technical skills.

After learning about the 3D printing process and industry, take on our 3D design mini courses to learn how to design your own 3D models from scratch. Our courses teach you how to use either Tinkercad (beginner) or Fusion 360 (intermediate) software – both options are completely free for education.

Then move on to participate in projects, where you'll go through the full creative process.

Projects guide you through each stage of the design process to make specific types of products in the fields of assistive technology, customised product design and STEM. They include a brief, background information, 3D design tutorials, portfolio templates and instructions on implementing various design methods such as user interviews, brainstorms, idea sketches, product evaluations and more.

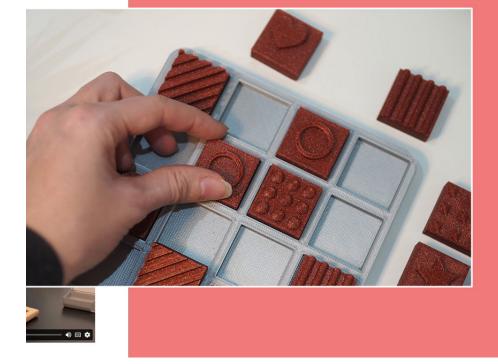
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Tactile Game

Submit

Tactile games refer to any type of game that involve the to are blind or visually impaired but there is a big and impor sive (E.g. Chess, Connect 4) and 2. Develop new games that





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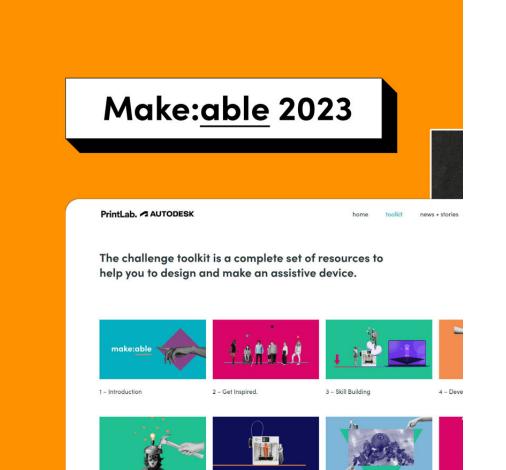
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Librar

printlab Surrealist Sculpture taking a deeper looking into surrealism and the ideas low and follow this up with a few minutes of online researc Skill Building rrealism in 5 Minut or Frida Kahlo. These surrealist artists created ma amazing artworks. But do you know about the philosophy behind the movement? Let's find out in thi story by Curious Muse! Watch Video



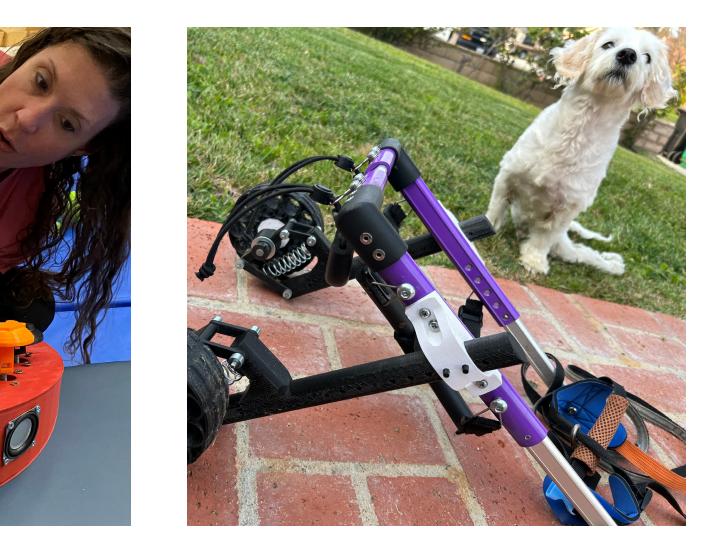






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Courses and projects will prepare you for open-ended design challenges.

Challenges are global design competitions (with prizes!) where you will solve a real-world problem with 3D printing. Challenge briefs are broad and open-ended, giving you complete freedom in both the product created and the design process undertaken. Our first challenge is Make:able – a yearly assistive technology design competition. Additional challenges will be launched in due course.

The Design Method Toolkit is designed to be used whilst working on projects or challenges. It provides you with a range of step-by-step problem-solving and design activities that can be used at each stage of the design process – whether it's to research topics, generate ideas, design prototypes, evaluate solutions or present work.

Although PrintLab projects guide you in using a pre-defined set of design methods, you can adapt projects by selecting your own methods and design process. The toolkit can also be used to tackle PrintLab's Make:able Challenge or challenges in your own day-to-day life.

printlab		Library	printlab		Library	Methods	=
Step-by-step design methods to help you creative challenges	solve		Evaluation Matrix Methods • Evaluating	x			
Al Researching Designing Evaluating Presenting			mapping out positive and negati not confined to a single area of t Take a look at the method steps l	nalyse products and prototypes. It involves defining multiple criteria to evaluate, before ve aspects of each one. Although a simple concept, it ensures your evaluation is thorough he design. below. In our example, we are evaluating an assistive bottle opener design. <u>Template, Evaluation Matrix Digital Image Template</u>	and		
Split Model Testing Exploratory Scale Drawing	Life Cycle Design			essistive bottle opener			,c
Group Brainstorm Feature Iteration Diagrams	Thumbnail Sketching		gative aspects of each criteria in	Step 1 Identify a product or prototype to evaluate. Prepare the evaluation matrix template b oither printing it out on large format energy (A1), conving the diagram on to a large	у ті		ut the 4 most import

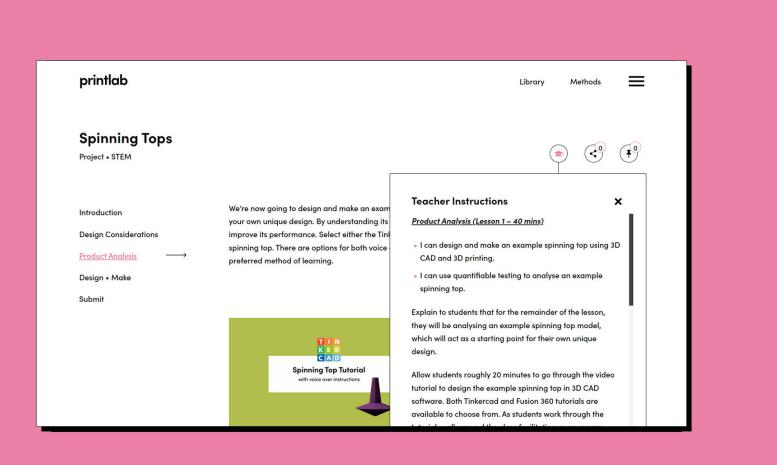


Accelerating the growth of 3D printing in education is at the heart of what we do, which is why we have a range of features designed specifically for educators.

printlab		Library Methods
Quick Clips Course • 3D Design	_	
2D Drawing making printin	mini course, you'll use a simple 2D sketc begin by following instructions and tutor g your own unique clip accessory. The 2 g but it is also a very useful technique fo urse length is approximately 2 hours, ex	Share Project X The project is now being shared in your library. Copy the link and share it with your students. The link can also be accessed from your project library. http://weareprintlab.alhaytham.aws.carboncode.co.uk/s
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Share Links

Select a resource, generate a share link and send it to your students to	Each r
give them one-click access to the learning platform. No logins required!	you wi





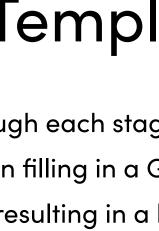
Teacher Instructions

resource comes with a teacher instructions tab, which provides vith step-by-step lesson plan instructions. As you go through the resource sections, the teacher instructions update accordingly.

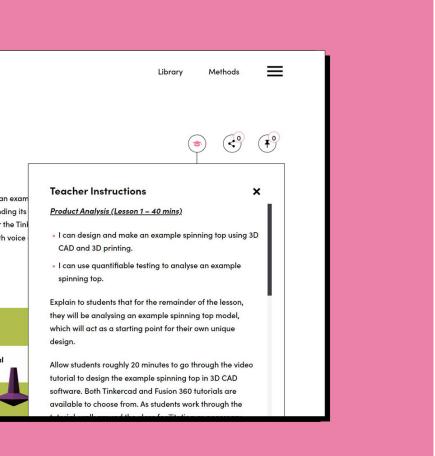
Portfolio Templ

As students move through each stag platform guides them in filling in a C their design process - resulting in a of work.

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Portfolio Templates

As students move through each stage of a project, the learning platform guides them in filling in a Google Slides template to document their design process - resulting in a beautiful and professional portfolio of work.

Rethinking Plasti	cs			Assessment Rul
	1 pt Below	2 pts Approaches	3 pts Meets	4 pts Exceeds
Product Analysis	I was unable to provide an analysis of the product I chose to redesign.	I was able to provide a limited analysis of the product I chose to redesign by describing its materials and features.	I was able to provide a comprehensive analysis of the product I chose to redesign by describing its materials, features and life cycle.	I was able to provide a deep insightful analysis of the product I chose to redesign. I used both writt summaries and diagrams to describ its materials, features and life cycle Additionally, I outlined the negative environmental and societal impacts at each stage of the life cycle.
Design Criteria	I was unable to generate any design criteria based on my product analysis.	I was able to generate a list of design criteria. However, the criteria was mainly down to my personal preferences and not driven by my product analysis.	I was able to generate a list of design criteria, driven by insights from the product analysis phase.	I was able to generate a list of desi, criteria, driven by insights from the product analysis phase. Additionally used my own knowledge of 3D printing and the circular economy t blend in my own technical criteria.
Idea Generation	I was unable to generate any design ideas.	I was able to generate some design ideas but they only partially met my design criteria.	I was able to generate a range of design ideas that fully met my design criteria.	I was able to use divergent thinking to generate an abundance of design ideas that met my design criteria. A ideas ranged from simple to compl by 'thinking outside of the box' in search of innovative solutions.

Assessment Resources

Our curriculum is aligned to the following standards: NGSS, ISTE, UK National Curriculum, and Australian Curriculum for Design and Technologies (v9). Resources come with both curriculum alignment documents and editable assessment rubrics, which can be used to grade student portfolios.





License Options.

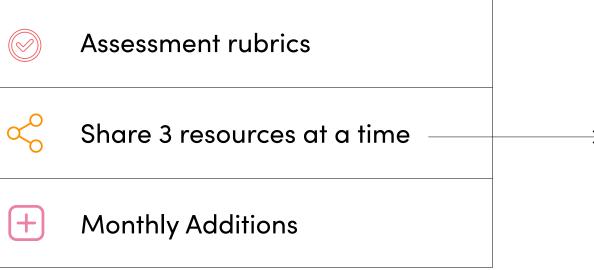
Teacher License: (1 Year Access)

PrintLab's Teacher License is for individual teachers and STEM instructors. It provides you with 1 teacher account and all the content/ features listed in the table below.

Site License: (1 Year Access)

PrintLab's Site License is for schools, libraries, makerspaces and STEM organisations. It includes up to 6 x teacher licenses – each of which consists of all the content/features listed in the table below. *All licenses expire exactly 1 year after the first license is activated.

¢Ĵ)	Mini courses	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Design method toolkit	(
\gtrsim	Design Projects	Ś	Standards-aligned lesson plans	(
5	Design Challenges	Ē	Portfolio templates	



Generate up to 3 share links at any one time.
Share links only give access to the specific
resource shared and up to 35 people can use an
individual share link at any one time.

Frequently Asked Questions.

Is there training for teachers?

PrintLab resources aren't just for students, they are a great way for educators to learn new skills. And by delivering PrintLab projects in the classroom and submitting example student portfolios, you can become a PrintLab Certified Educator through our certification programme.

What order do I teach the resources in?

PrintLab was built as a flexible library of resources that you can pick and choose from depending on your curriculum requirements, student skill level and personal preference.

We do however have a pathway of resources that we recommend for those who are new to 3D design and 3D printing. We call this the 'Fundamentals Pathway' and information on delivering this pathway is provided in the user guide.

What age group is PrintLab for?

PrintLab resources are suitable for users of ages 10+. In the teacher instructions (where relevant), we suggest various ways in which you can adapt projects and challenges for both younger/beginner students and older/advanced students.

What subjects is PrintLab for?

Many of our users teach Design, Technology or Engineering classes but several projects have cross-curricular links to other subjects, such as Science, History and Geography.

What type of 3D printer is required to use PrintLab?

Our curriculum is suitable for use with any FFF (fused filament fabrication) 3D printer. Our resources do not cover how to use specific machines but provide generic guidance and 3D printing tips, which apply to all FFF 3D printers.

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So, I just love what these guys are doing! They definitely have a grasp of what is needed in the classroom for sure. I feel like everything is laid out perfectly here. This would be something that I feel like I wouldn't really have to tweak at all. Honestly, with the future unknown, this content would be priceless for teachers like me. From what I have seen from this company, they are doing a phenomenal job! I highly recommend it!

Bill White, Avonworth School

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I was just selected as District Teacher of the Year and will be competing at the regional level in the coming months. Your curriculum has played a big role in my success, so I appreciate you so much. The assistive device lesson has led me to a partnership with the high school nursing program and their connection to local nursing homes. I'm so excited to see where that relationship leads. So many career connections!

Becky Wynne, Maryville Middle School

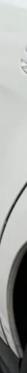














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