



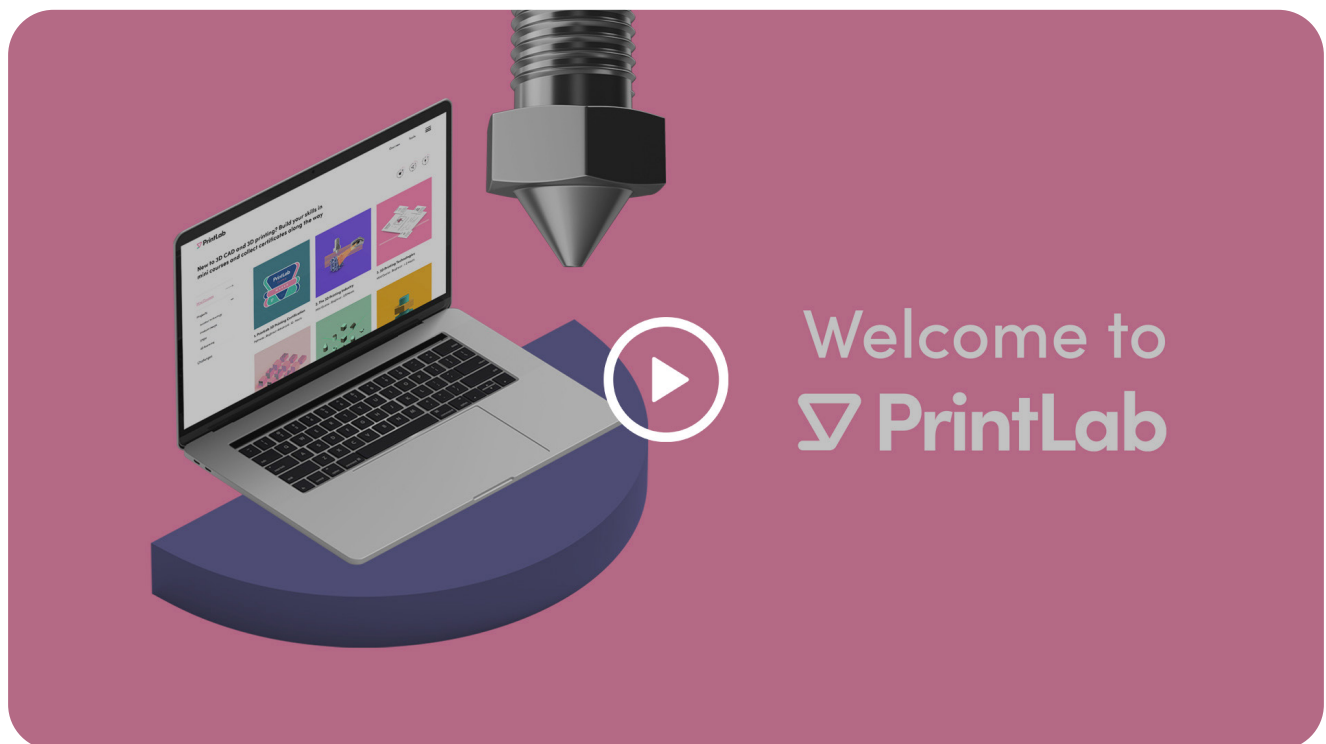
PrintLab Educator Guide

A practical guide to teaching 3D design and printing



1. Intro to PrintLab

PrintLab is an online learning platform that offers courses, tools, and certifications in 3D CAD and 3D printing. It empowers educators and students with industry-relevant skills, while guiding them to design meaningful products. Watch the platform overview below to see how it works in practice.



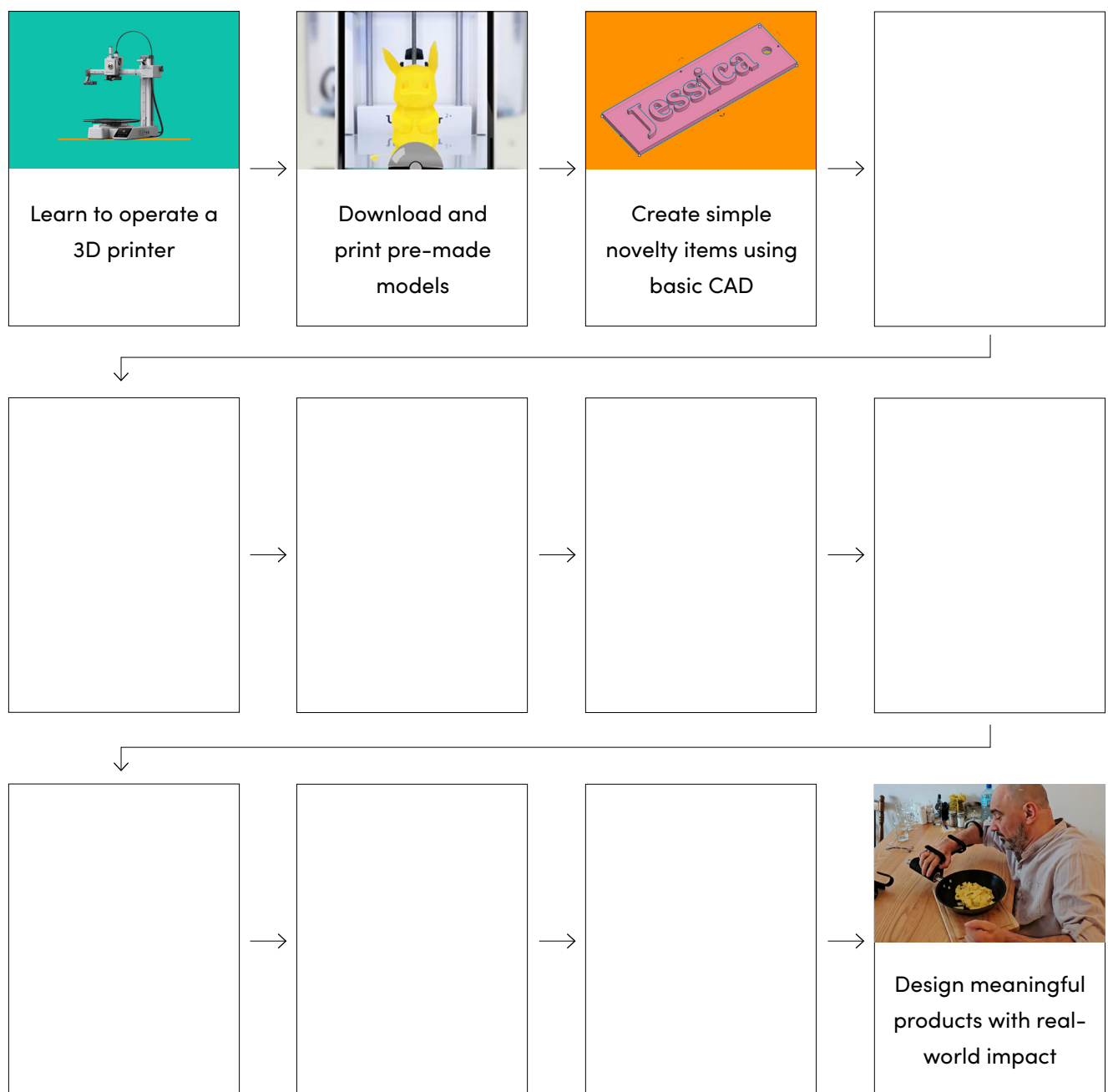
Key Points

- Ready-to-use teaching resources reduce lesson preparation time.
- Supports educators in building their own 3D design skills and confidence alongside their students.
- Courses organised into mini courses, projects, and challenges.
- Structured progression from foundational skills to open-ended design.
- Combines online learning with hands-on, real-world activities.
- Easy to share with students using simple access links (no logins required).
- Includes standards-aligned lesson plans, portfolio templates, and assessment resources.
- Certification pathways for both teachers and students.

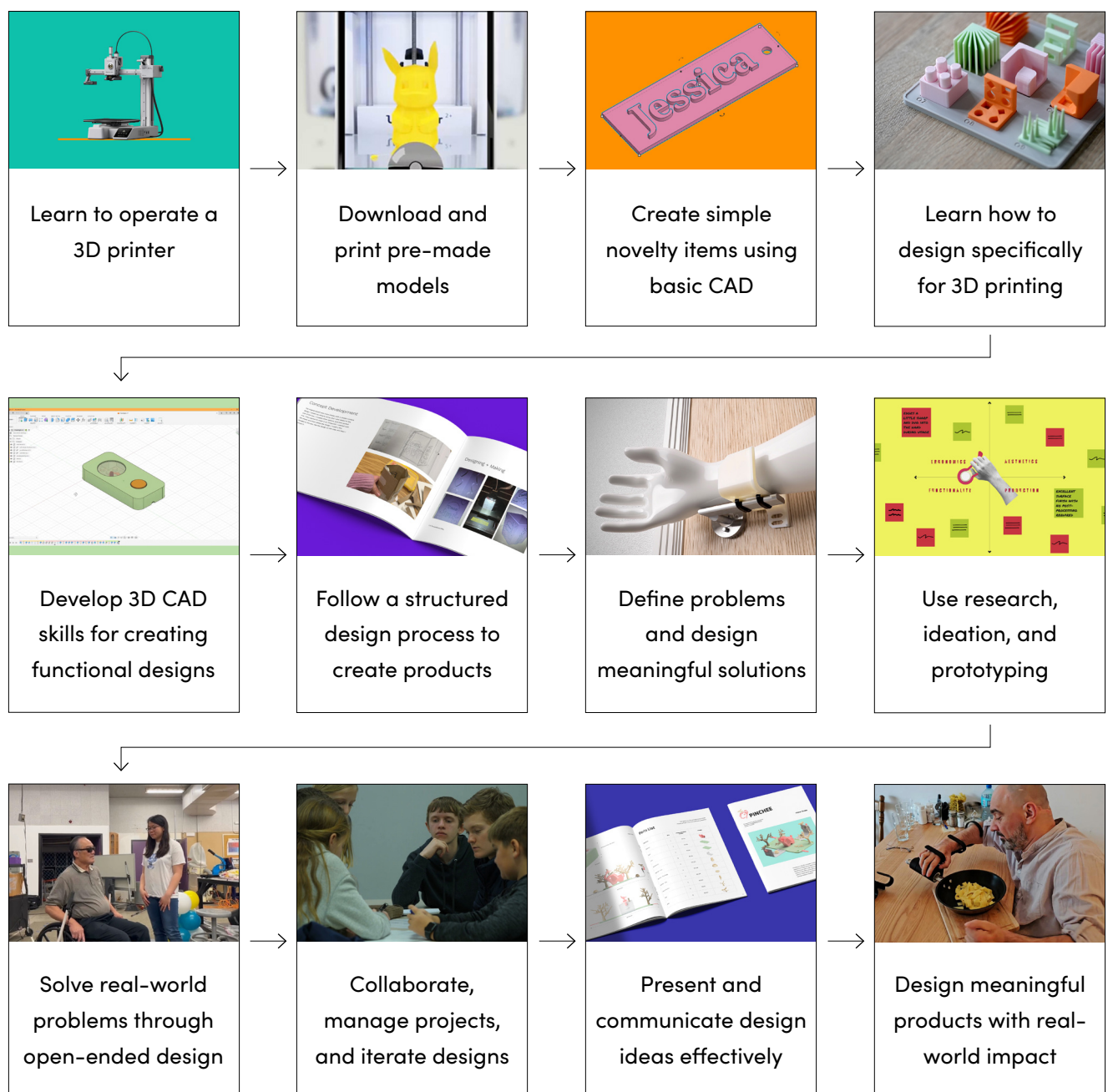


2. Why PrintLab

3D printing is shaping modern industries, from manufacturing and healthcare to product design and engineering. As a result, schools are rapidly adopting 3D printing technologies to prepare students for future careers. However, in many classrooms, the learning journey often follows a limited path, as shown below.



PrintLab bridges this gap by transforming 3D printing from basic use into meaningful design. Through mini courses, projects, and challenges, students develop the technical and human skills needed to solve real-world problems and flourish in whatever career direction they choose.



Below you can see where the PrintLab journey leads, through example submissions from our Make:able challenge — where students design products to solve real-world problems. These examples highlight the level of thinking, creativity, and problem solving students develop through PrintLab.



3D Printed Arm Attachment

Designed for Joshua, this customizable arm attachment helps him catch a ball, use a broom, and hold everyday objects more easily. Created by students aged 12–13.



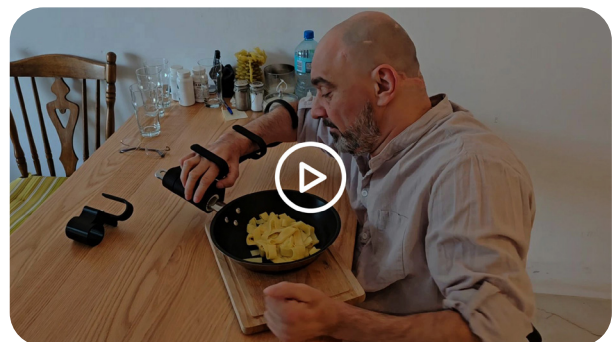
3D Printed Smart Cane

Designed for Safaa, a blind woman, this smart cane uses vibration feedback to detect obstacles and includes emergency features to improve safety when alone. Created by students aged 14–15.



3D Printed Pill Dispenser

Designed for Steve, who has Parkinson's disease, this dispenser uses a simple mechanism to release one pill at a time, making daily use easier and more reliable. Created by students aged 16.



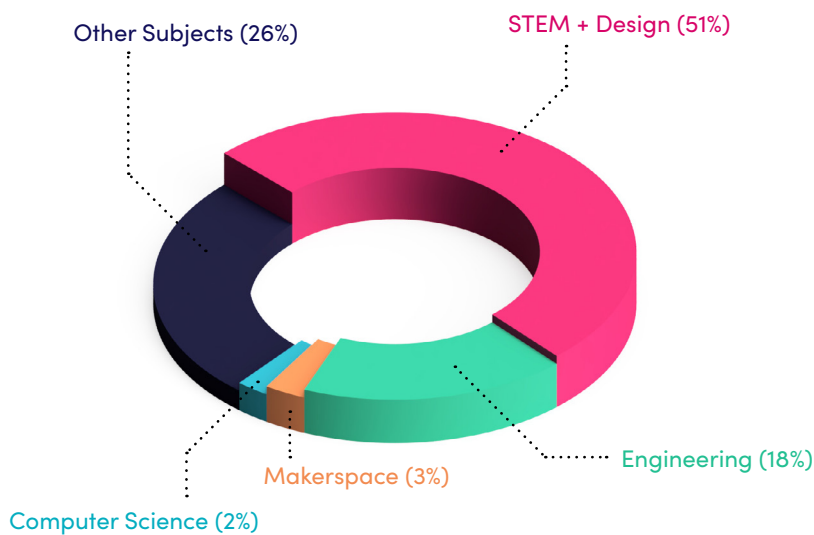
3D Printed Gripping Aid

Designed for Adam, who has tetraplegia, this adjustable gripper uses wrist movement to help him hold objects and gain greater independence. Created by students aged 18+.



3. Who Uses PrintLab?

The data below shows who uses PrintLab and how it supports learning in classrooms and beyond.

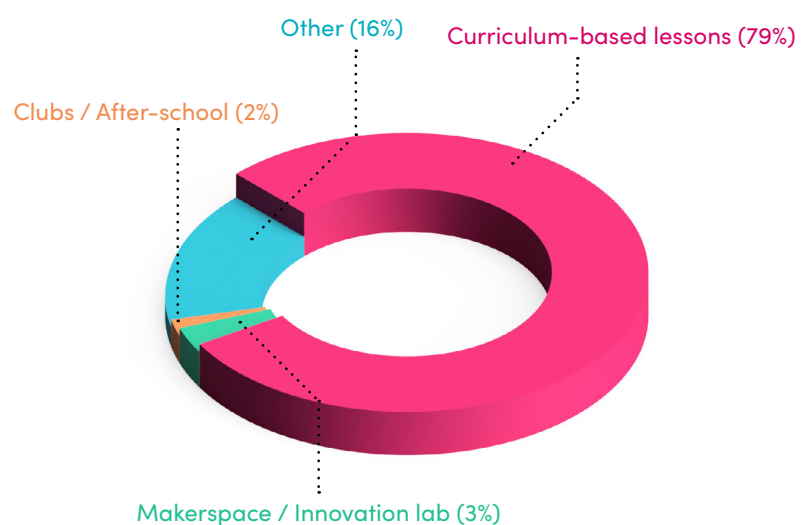


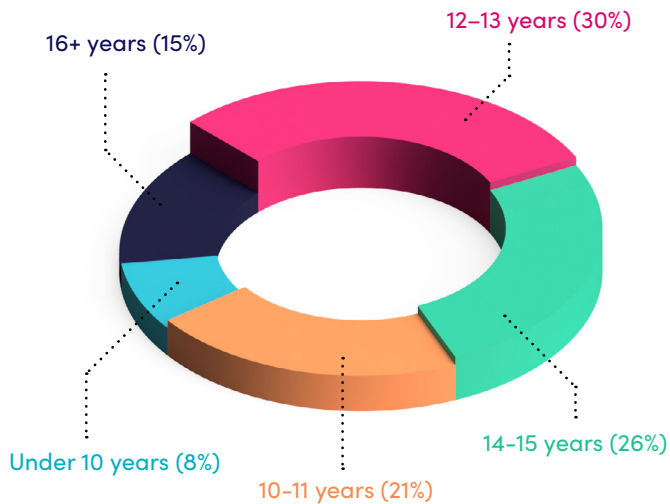
Educator Roles

PrintLab is primarily used by educators in STEM, design, and engineering subjects, with additional adoption across a wide range of disciplines.

Learning Context

Most educators use PrintLab within curriculum-based lessons, while its flexible resources also support clubs, after-school programmes, and makerspace activities.



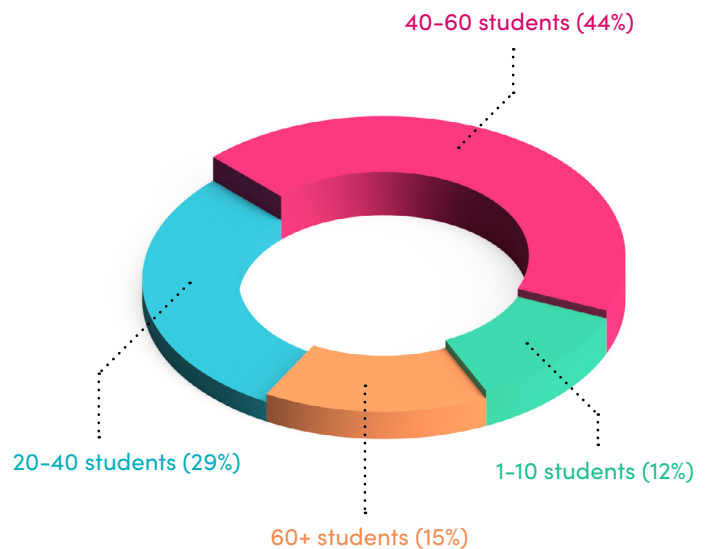


Student Age Groups

PrintLab is most commonly used with students aged 10 to 16, while also supporting both younger learners and older students, including university-level use at institutions such as Johns Hopkins.

Students Learning per Educator

PrintLab is typically delivered to full class groups, with many educators introducing 3D printing and design across multiple classes and larger cohorts.



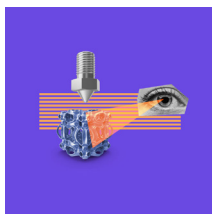
Who Else Uses PrintLab?

- Libraries and makerspaces running workshops or programmes
- Non-profits delivering STEM or community-based initiatives
- Individual makers and hobbyists developing design skills
- Occupational therapists and groups interested in assistive technology design



4. Using PrintLab

PrintLab allows teachers to build flexible learning pathways by selecting from mini courses, projects, and challenges. Many begin by exploring mini courses for their own professional development before delivering content with students. Teachers can then mix and match these depending on curriculum requirements, student ability, and available time, as illustrated in the pathway below.



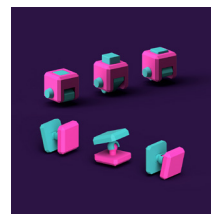
1. 3D Printing Industry



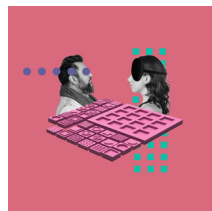
2. Intro to 3D CAD with Tinkercad



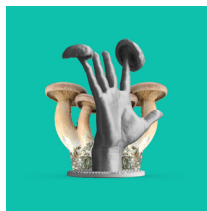
3. Designing for 3D Printing



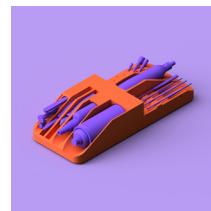
4. Connections + Mechanisms



5. Tactile Matching Games



6. Surrealist Sculptures



7. Storage Organisers

- Mini Courses
- Projects
- Challenges



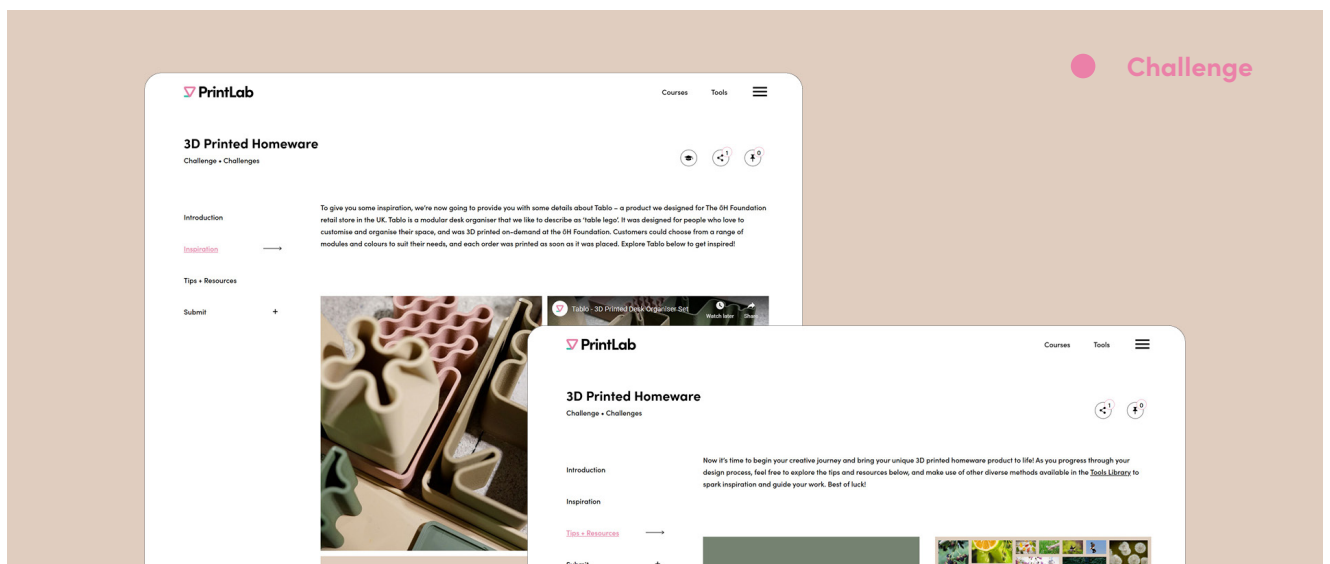
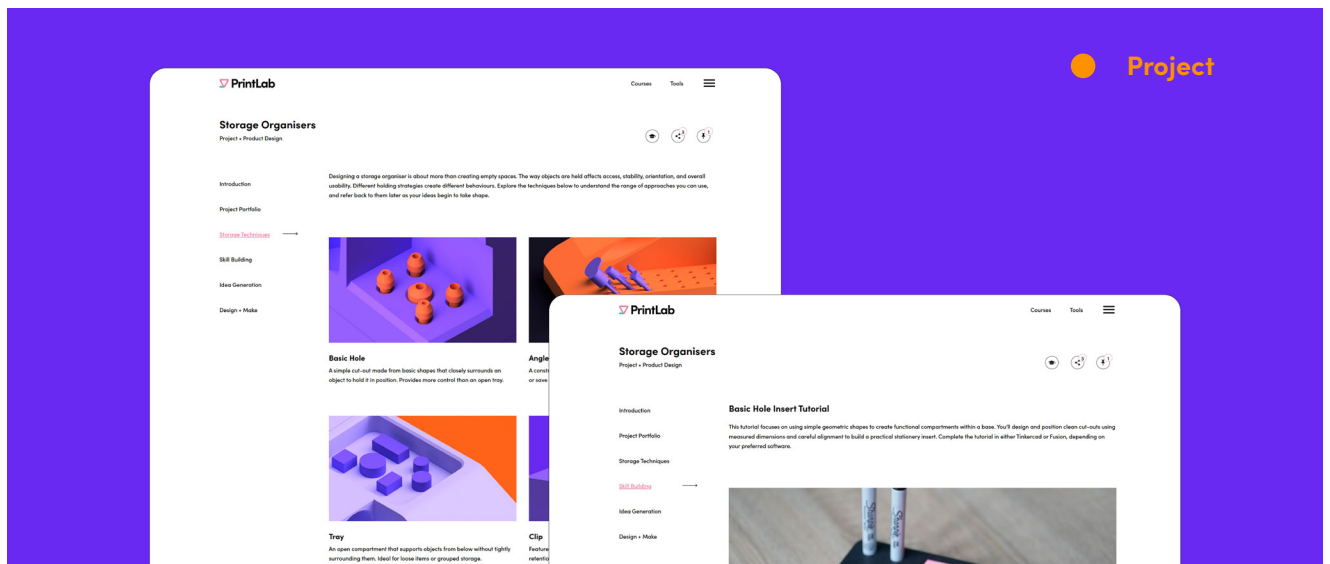
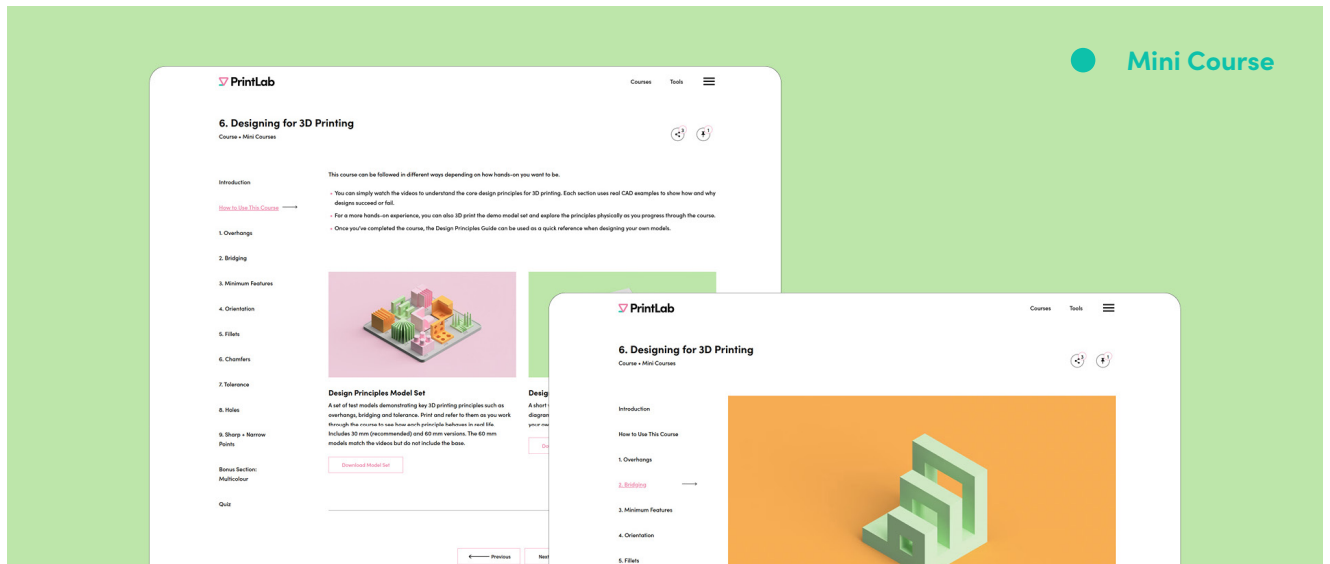
8. 3D Printed Homeware



9. Make:able Challenge

A common approach is to start student groups with mini courses, followed by projects, and culminating in open-ended challenges. However, there is no fixed pathway. Teachers can adapt based on student experience. See an example of how a school implements PrintLab across different grade levels:

[View Example Pathway](#)



PrintLab is designed to be easy to deliver in the classroom, combining teacher-led instruction, individual work on the platform, and hands-on activities. The steps below show how teachers typically deliver a course.



STEP 1 Browse the course library and select one based on lesson goals.



STEP 2 Review the teacher instructions, including lesson plans, resources, and assessment guidance.



STEP 3 Prepare materials and make any adaptations, such as example prints or worksheets.



STEP 4 Generate a share link from the course platform for students to access the content.



STEP 5 Follow the lesson plan and send the share link to students at the appropriate points (no logins required).



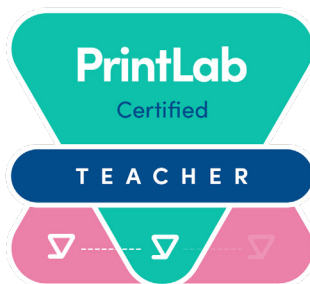
STEP 6 Use the provided assessment methods, such as rubrics, to review student portfolios/work.

While using PrintLab, teachers can earn certifications by submitting evidence of their work. As they progress through mini courses, projects, and challenges, they naturally build towards recognised credentials that showcase their skills and professional development. Each certification includes a formal certificate and badge image.



Level 1

Complete four mini courses and submit certificates to demonstrate foundational 3D CAD and 3D printing skills.



Level 2

Deliver a structured design project and submit an example student portfolio.



Level 3

Facilitate an open-ended design challenge and submit an example student solution.

Student Certification

PrintLab also offers a student certification pathway, where students submit their own work and earn recognised credentials as they progress through mini courses, projects, and challenges.

[View Certification Details](#)



5. License Options

PrintLab offers flexible licensing designed for both individual classrooms and whole-school implementation. Multi-year and bespoke licenses are also available upon request.

Core Features (included in all licenses)

 Mini courses	 Tools library	 Assessment rubrics
 Design projects	 Standards-aligned lesson plans	 Share link generator
 Design challenges	 Portfolio templates	 Certification pathways

Teacher License: \$299 (1 Year Access)

Designed for individual educators or pilot use.

- 1 teacher account
- Share courses with students using 3 active links
- Includes certification (1 teacher, 35 students)

Best for:

- Individual teachers sharing up to 3 resources at a time
- Schools getting started with 3D printing
- Trial or pilot programmes

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.

Site License: \$999 (1 Year Access)

Designed for higher-volume use, whether by an individual teacher, multiple teachers, or across a whole school.

- Unlimited teacher accounts (same site location)
- Share courses with students using unlimited share links
- Includes certification (unlimited teacher and students)

Best for:

- Teachers using PrintLab with multiple grade levels and classes
- Multiple teachers/instructors using PrintLab
- Department or whole-school rollout



6. FAQs

Answers to common questions about using PrintLab.

When does the subscription start?

If you purchase a licence coupon, your subscription begins when you activate it, not when you purchase it.

How many students can use PrintLab?

With a Teacher License, you can share up to 3 resources at a time, and each share link allows up to 35 students to access it simultaneously. With a Site License, there are no limits, including unlimited teachers, share links, and students.

Is student data collected?

Students can access PrintLab using a share link without creating accounts or providing personal data. In some cases, such as certifications, limited information like a student's name may be required, with parental consent forms provided where needed.

Does PrintLab teach how to use my 3D printer?

PrintLab includes guidance on how 3D printing works and how to design for it, but does not focus on operating specific printer models.

How do renewals work?

Subscriptions do not renew automatically. You can purchase a new licence to continue access when your current subscription expires.

Can multiple teachers use PrintLab?

Teacher licenses are for individual educators. Site licenses allow unlimited teachers within the same school.

How do students access PrintLab?

Students access PrintLab using a simple share link provided by the teacher. No student accounts or logins are required.

What CAD software is used?

PrintLab includes tutorials and projects using Tinkercad for beginners and Autodesk Fusion for more advanced users. Both are free for education.

What equipment is required?

Schools need access to 3D printers, filament, and computers with internet access. PrintLab works with any filament-based 3D printer.

Can licenses be upgraded or customised?

Yes, licenses can be upgraded or tailored to specific needs. Contact PrintLab for bespoke options.

“

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

“

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



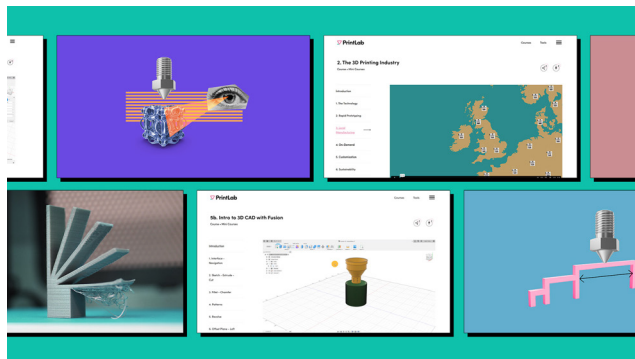
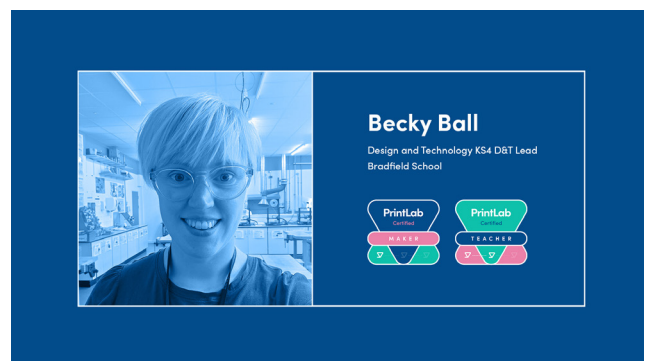
7. Getting Started

Explore how other educators use PrintLab, try the platform for yourself, and choose a license that suits your needs.

1. Explore Case Studies

See how educators use PrintLab to develop students' design skills and deliver meaningful projects.

[View Case Studies](#)



2. Start a Free Trial

Explore the course library, teacher resources, and certification pathways to see how PrintLab could fit into your teaching.

[Start Your Free Trial](#)

3. Purchase a License

Choose a Teacher or Site License to continue using PrintLab after your trial. Multi-year and bespoke licenses are also available. For help choosing a license or ordering through a purchase order, email hello@weareprintlab.com.

[Purchase PrintLab](#)

 **PrintLab**

