PrintLab.

classroom

we make 3D printing curriculum.

PrintLab Classroom is an online platform of 3D printing lesson plans for educators. Our approach is to take inspiration from the innovative uses of 3D printing in industry and bring these through to education, with the aim of facilitating students in becoming creative problem solvers. The curriculum is aligned to a range of standards across different subject areas and challenges students to design assistive technology, alternatives to single-use plastics, hands-free virus solutions and more.

3D Printing Lesson Plans

View **All** or Filter lessons by **Theme**, **Subject Area**, **Difficulty** or **Duration**

Assistive Device Academy v2

A human-centred design project where students create a range of assistive devices for people with disabilities

Learn More

Pandemic Products

Students design solutions to limit the spread of viruses such as Covid-19 on surfaces

Learn More

Project Upcycle

Students upcycle waste materials at their school by combining them with 3D printed forms to create useful products

Learn More

our platform is a toolkit for educators.

Our online 'toolkit' allows you to pick and choose from 50+ projects to build your own pathway for students - saving you the time and stress of creating your own lesson plans. The resources are suitable for students of ages 8+ and range from individual skill-building lessons to full design-thinking units that span over multiple sessions. The majority of our projects have a component of 3D design, where we use video tutorials to upskill students in Autodesk's free software (Tinkercad and Fusion 360 options).

students will learn technical skills.
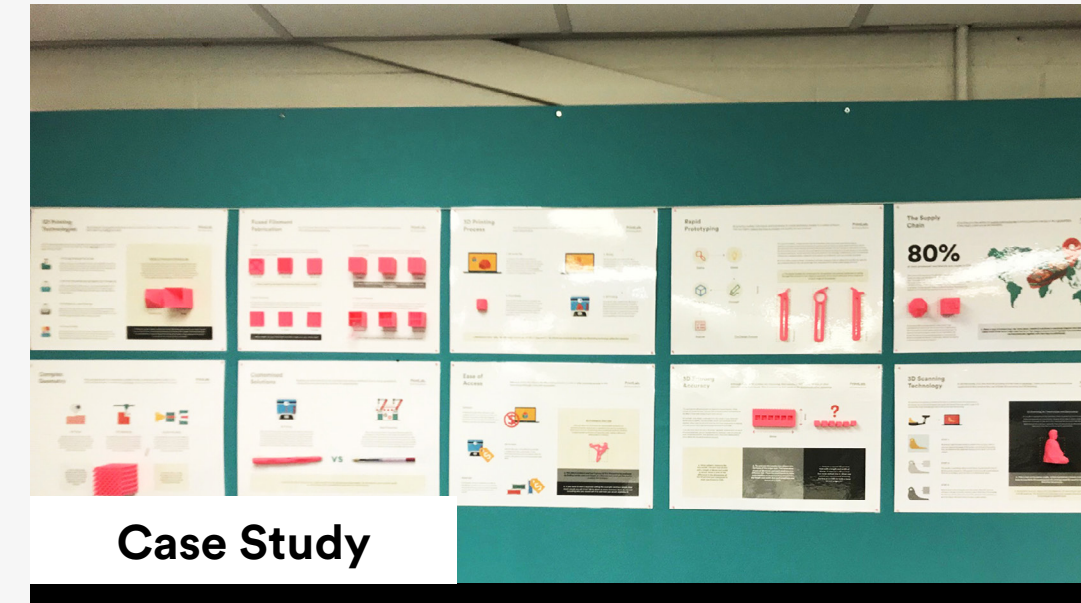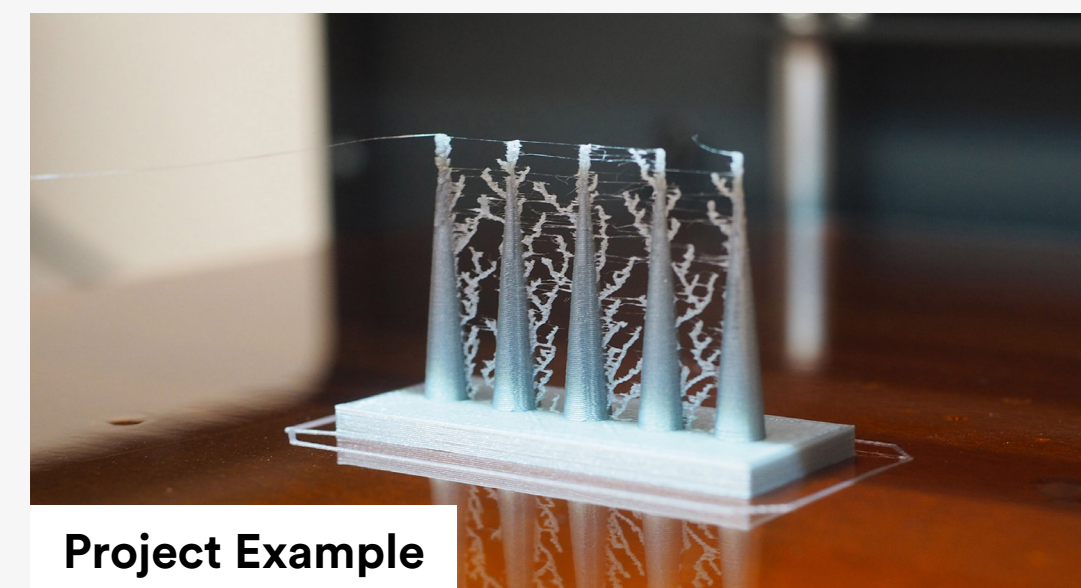

Case Study

3D Printing Basics

Latymer Upper School (UK) used PrintLab's 3D Printing Basics project to create a wall display explaining all the fundamentals of the 3D printing industry.

3D Modelling Basics

A self-paced mini-course that introduces students to 3D modelling in Tinkercad software.
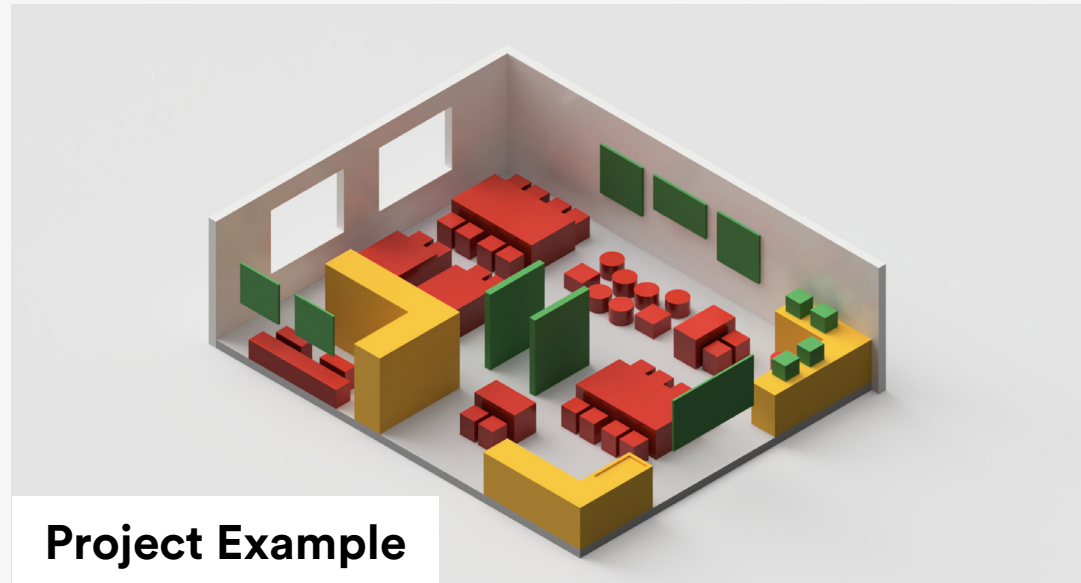

Project Example

Project Example

Slicing for 3D Printing

A video series that shows the effects of changing slicer parameters such as print speed, print temperature and retraction.

Redesign your Classroom

Students listen to the thoughts and opinions of their peers, before collaborating to redesign their classroom in view of enhancing their learning experience.

Project Example

Assistive Device Academy

Students at LJ Hauser Junior High School (USA) used PrintLab's Assistive Device Academy to design products such as assistive bottle openers in an iterative process.

Case Study
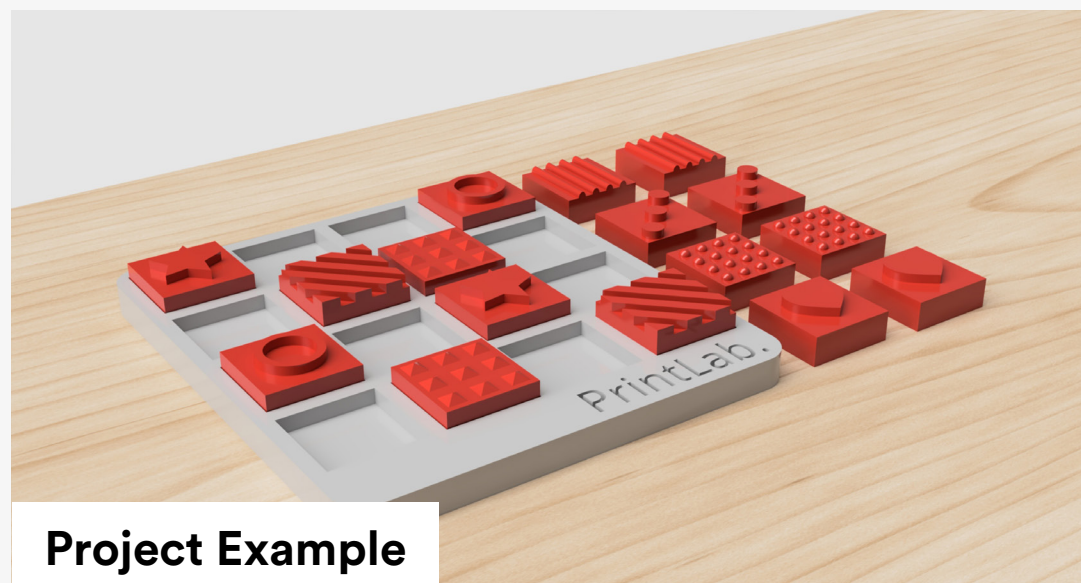
Tactile Games

A human-centred design project where students create tactile games for people with visual impairments.

Project Example

students will learn human centred design.

# students will learn how to solve global problems.

Project Example

Packaging Redesign

A project where students learn about the circular economy before rethinking and redesigning the way we create and use packaging.

Pandemic Products

Students learn about the transmission of viruses such as Covid-19, before designing 'hands-free' solutions to limit their spread on surfaces.
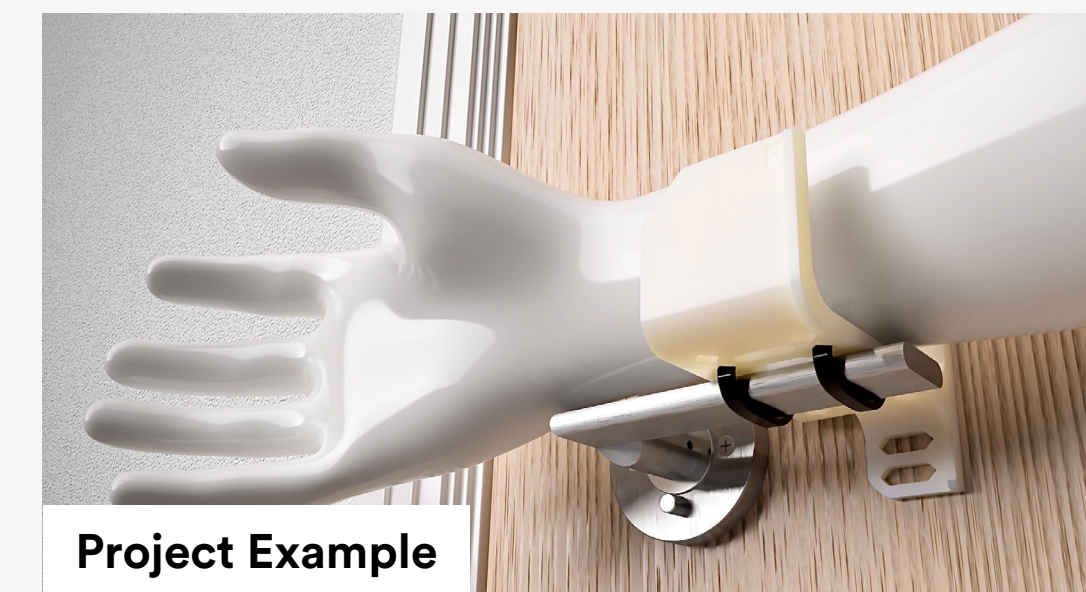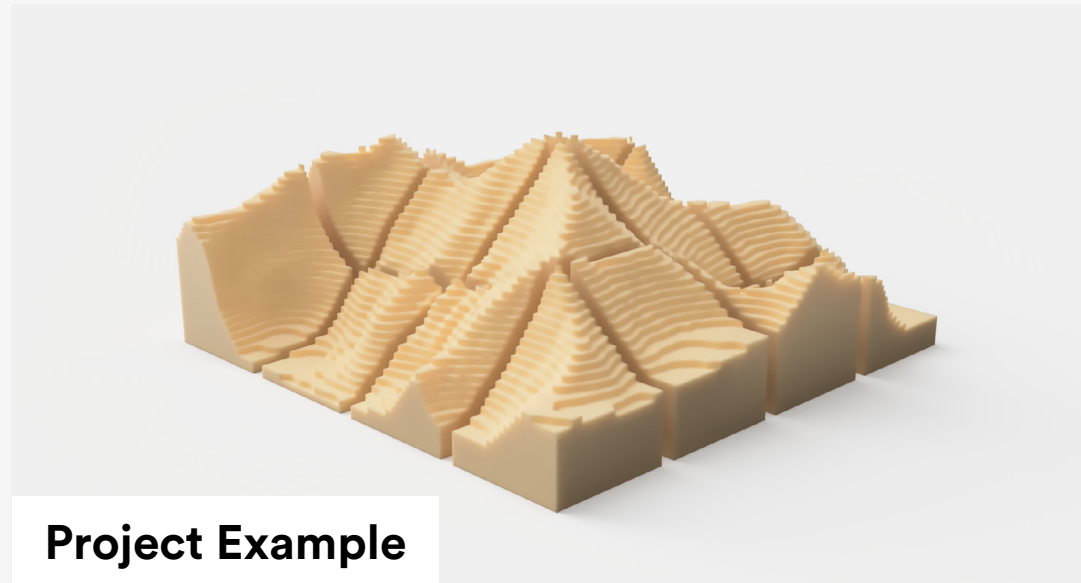

Project Example

Case Study

Project Upcycle

An example student design from Maryville Middle School, who upcycled plastic bags into a woven 'bag-for-life' with 3D printed handles.
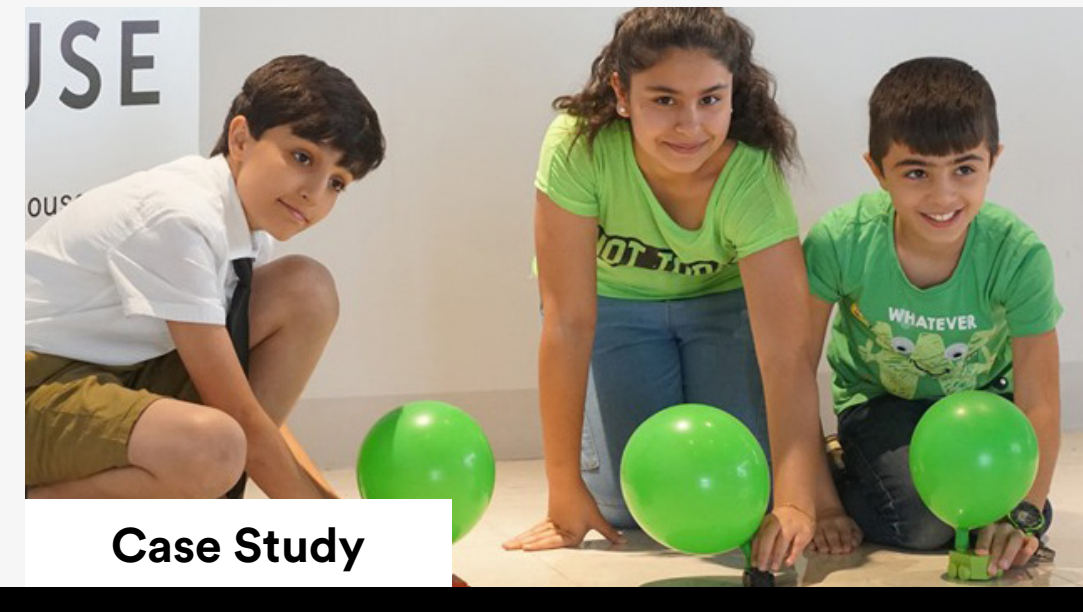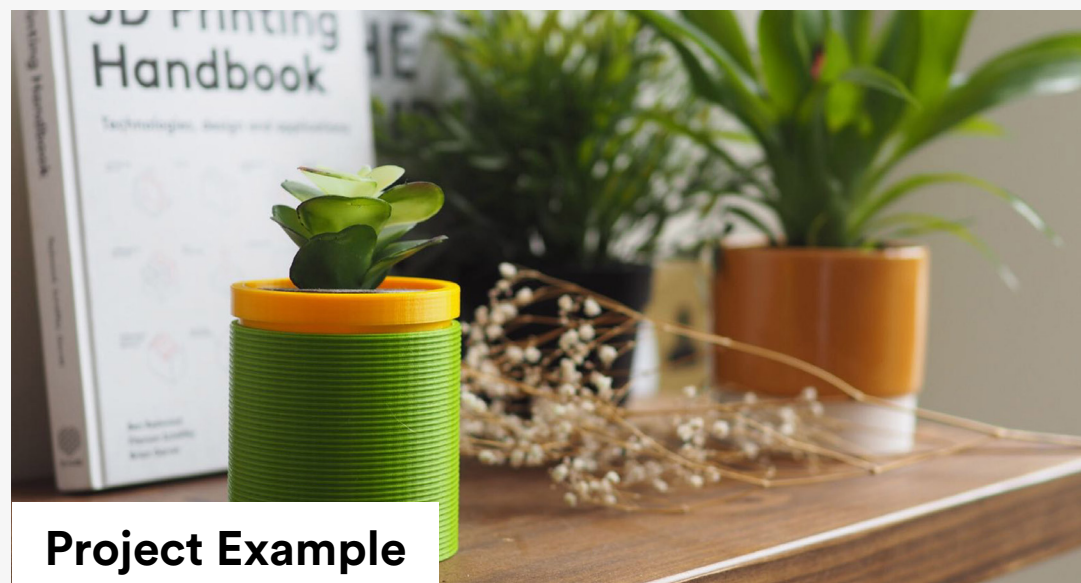
3D Contour Models

Students collaboratively design and 3D print a 3D contour model, whilst learning about scale and land forms.

Project Example

Balloon Powered Dragsters

Students at Re:Coded (Iraq) learnt about forces and motion to help them design balloon powered dragsters, which were raced in a class competition.

Case Study

Self-Watering Planters

A project that teaches about photosynthesis, before self-watering planters are designed to grow plants in the classroom.

Project Example

# students will engage with STEM subjects.

how it works - the teacher portal.

Upon signing up to PrintLab, educators will create an account on the teacher portal - home to PrintLab's growing library of lesson plans and a 5 hour professional development course. Each lesson consists of step-by-step instructions, together with a range of downloadable and editable teaching resources such as presentations, worksheets and assessment rubrics.

STEP 1: Select a lesson ⟶ STEP 2: Read teacher instructions ⟶ STEP 3: Download and prepare teaching materials ⟶
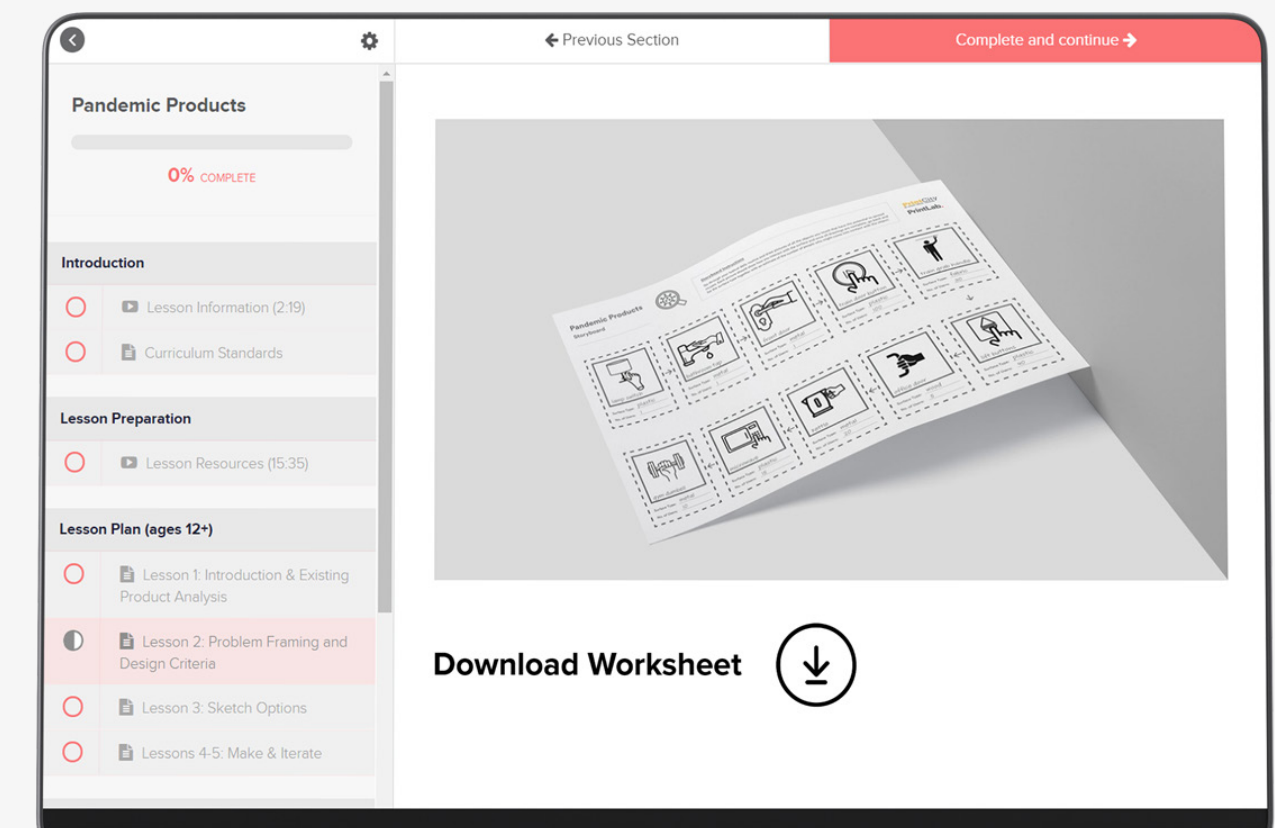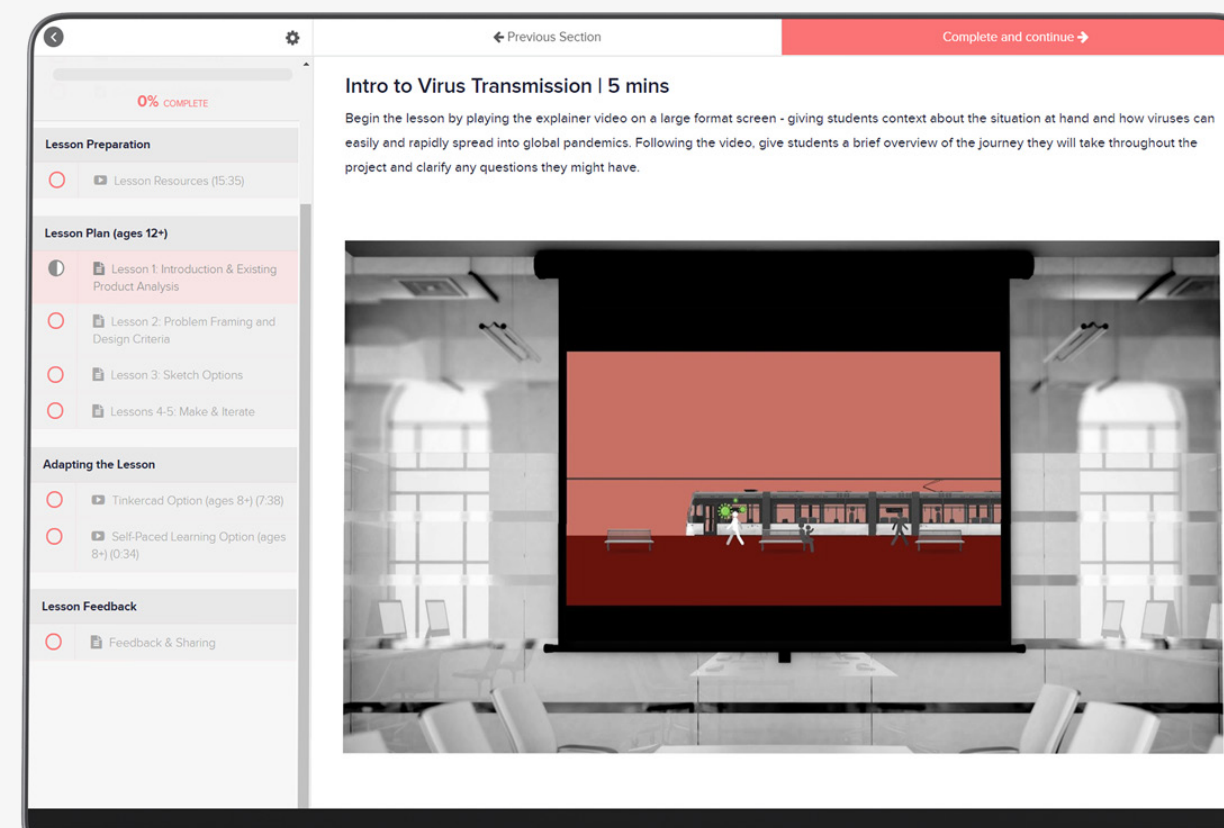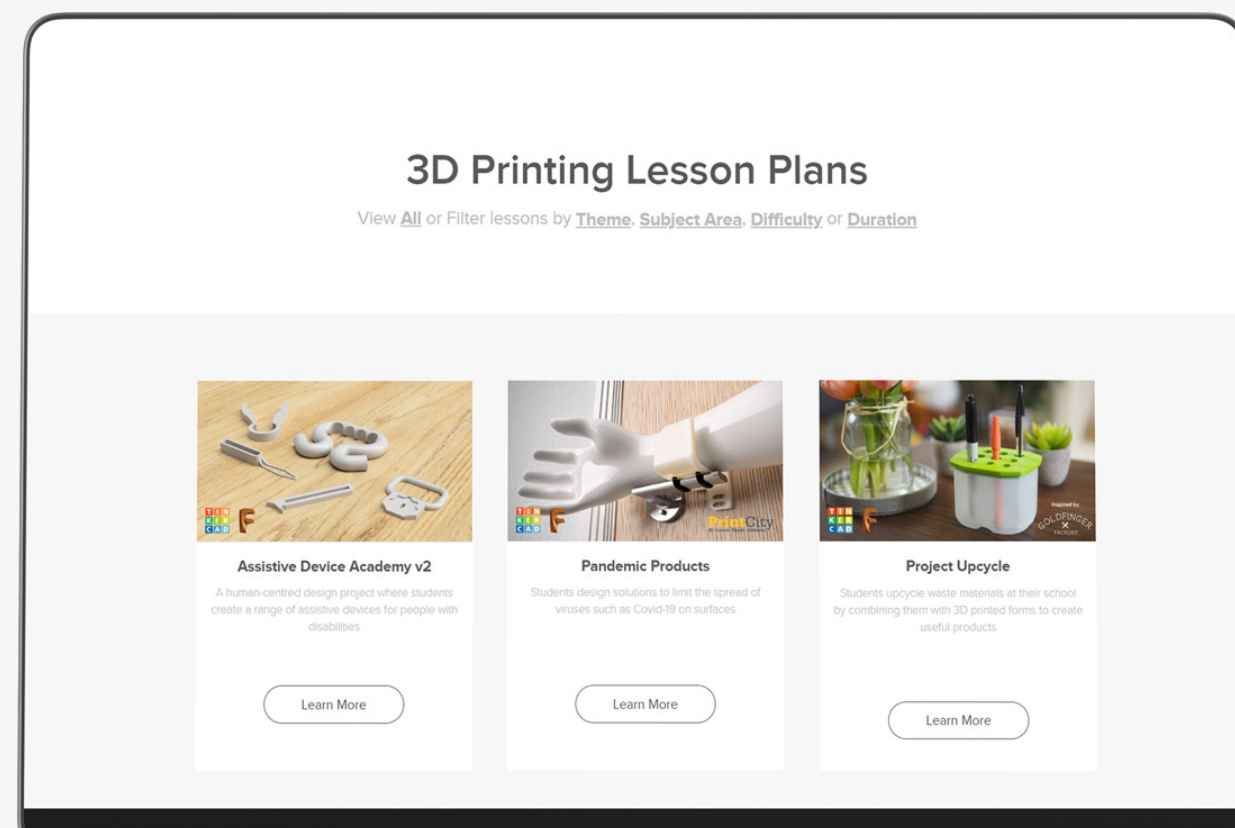
how it works -
the student portal.

Educators also receive an access code to the student portal - home to the online learning resources required for each of PrintLab's lesson plans (CAD tutorial videos, explainer videos etc). For each lesson on the teacher portal, there's a matching resource on the student portal. The lesson plans will instruct you on how and when to direct students to these resources during a project. The student portal can be accessed on devices anywhere and anytime - making it the perfect solution for blended, flipped and distance learning.

→ STEP 4: Deliver lesson and direct students to the student portal resources as stated in the lesson plan
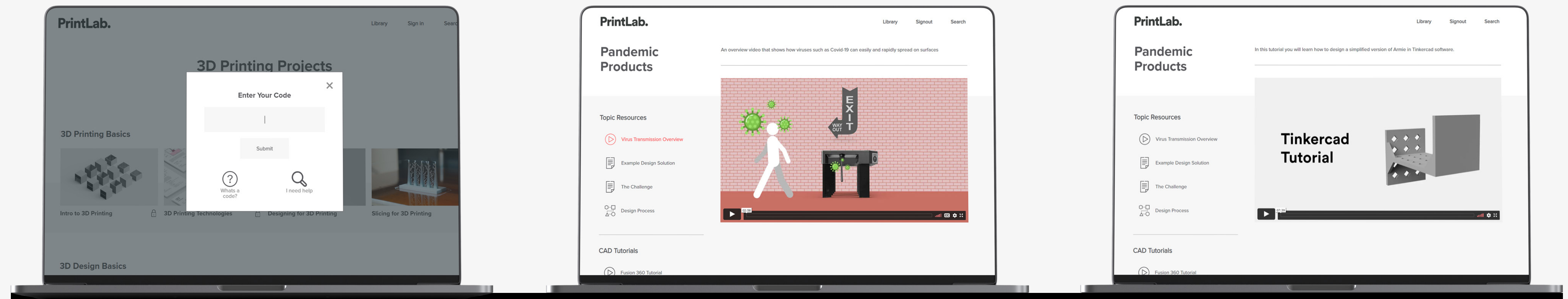
we support individual teachers.

PrintLab Classroom Teacher License (1 Year)
$299

for individual classrooms

- 1 x teacher portal account (50 fully-resourced lesson plans with new content each month).

- 1 x seat to The PrintLab Certification Course for teachers (5-hour online course).

- 30 x student portal users (access code is provided that allows 30 users to use PrintLab's student portal at the same time).

PrintLab Classroom Site License (1 Year)
$999

for schools, libraries, makerspaces and small STEM organisations

- 10 x teacher portal accounts (50+ fully-resourced lesson plans with new content each month).

- 10 x seats to The PrintLab Certification Course for teachers (5-hour online course).

- 200 x student portal users (access code is provided that allows 200 users to use PrintLab's student portal at the same time).

we support entire schools.

Mona Luth Edmonton Area RCSD (Canada)

"The certification course was totally worth the time spent. I kind of knew what I was doing but the course made me understand the reason why things would work or not work. Because it was online, I was able to work on it when I had the time and I could review and repeat until I got it"

Stuart Lawn FabLab Manorhamilton (Ireland)

"The kids loved it and we actually managed to get a working whistle at the end! One of the kids has been so keen on it he convinced his Dad to buy a 3D Printer kit and they spent the weekend building it together!"

Becky Wynne Maryville Middle School (USA)

"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!"

Ed Charlwood Latymer Upper School (UK)

"Imagine how powerful it would be if every GCSE and A-Level D&T student had access to the Pandemic Products lesson, and a 3D printer at home!"

Michele Brezovec South Meadow School (USA)

"I have four classes of 3D design, all using PrintLab Classroom. The ability to design and create in 3D will be a part of their future, as will be learning from their mistakes!"

we are global.

say hello.
(Click)

_____

or

start a free trial.
(Click)

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