

TEACHER PACK · SCHOOLS & COLLEGES · AGES 11-19

Your students build a working machine. The curriculum comes with it.

Make Engineers is a ladder of hands-on engineering programmes delivered in your school — from a working bamboo speaker built in an afternoon to a rideable bamboo bicycle your students design, build and keep testing. Curriculum-mapped, OCN-accredited, and started by the team that has taught 4,000+ people to build bikes since 2012.

1,500+
YOUNG PEOPLE REACHED
— BUILDS, TASTERS & TALKS

OCN Level 1
AWARD — PRACTICAL
MANUFACTURING SKILLS

Gatsby 4
LINKING CURRICULUM
LEARNING TO CAREERS

KS3-post-16
CURRICULUM-MAPPED,
AGES 11-19

The programme ladder — start free, build up

TIER	PROGRAMME	WHAT STUDENTS DO	AGES / STAGE
Foundation FREE	Acoustic Engineering & Sustainable Product Design	Build a working bamboo speaker — design the chamber, test the sound, learn the physics. A complete STEM project in 2-3 hours.	11-16 · KS3-KS4
Frame I	Sustainable Product Engineering	A first frame build — a bamboo balance bike. Structural design and precision fabrication where the finished object holds real weight.	KS3-KS4
Frame II	Sustainable Bicycle Technical Development	Design, build and ride a real bamboo gravel frame — drawings, jig setup, mitring, bonding and quality checks, as in industry.	14-18 · KS4/post-16
Additive	Additive Manufacturing & Adaptive Design	Students design and 3D-print the frame lugs — parametric design taken from screen to structural part.	14-19 · post-16
Systems	Electric Mobility Engineering & Green Technology	Wire and integrate the electronics that drive an e-bike — circuits, power and systems thinking.	KS4-post-16

The Speaker is the taster: run it free, then decide the rest. Every other programme is priced by quote — most schools fund programmes from existing budgets or a grant, and we'll help you make the case.

What it counts for

- ✓ **OCN London accredited** — optional Level 1 Award in Practical Manufacturing Skills, where it counts for your learners (alternative provision, SEND, FE and post-16)
- ✓ **Gatsby Benchmark 4** — curriculum learning linked to careers, evidenced
- ✓ **D&T / Science / Engineering** curriculum mapping for KS3 to post-16, provided per programme

Logistics, in one look

- ✓ Delivered in your D&T space or hall — we bring tools and materials
- ✓ Enhanced-DBS facilitators · public-liability insured
- ✓ Speaker build: one session, 2–3 hours, a class set
- ✓ Frame programmes: multi-session, timetable-fit planned with you
- ✓ Kits are rebuildable — a frame can be dismantled so a new cohort builds again next year

The bike students build isn't a model — it's a machine they ride. That's the moment engineering stops being a subject and becomes something they can do.

Bamboo Mobility Project CIC · a social enterprise — every programme helps fund accredited skills courses inside UK prisons and schools.

Who's behind it

Bamboo Bicycle Club has taught people to build bamboo bicycles since 2012 — 4,000+ builders worldwide, frames independently tested at Swansea University to BS ISO 22157, and featured by the Financial Times, The Guardian, CNN and BBC News. Make Engineers is delivered by Bamboo Mobility Project CIC, our social enterprise — the same craft also runs as an accredited rehabilitation programme inside UK prisons.

The next step

Book the free Speaker taster, or send us your timetable constraints and cohort size — we'll come back with a scoped plan and a quote you can take to SLT.

info@bamboobicycleclub.org

bamboobicycleclub.org/pages/schools