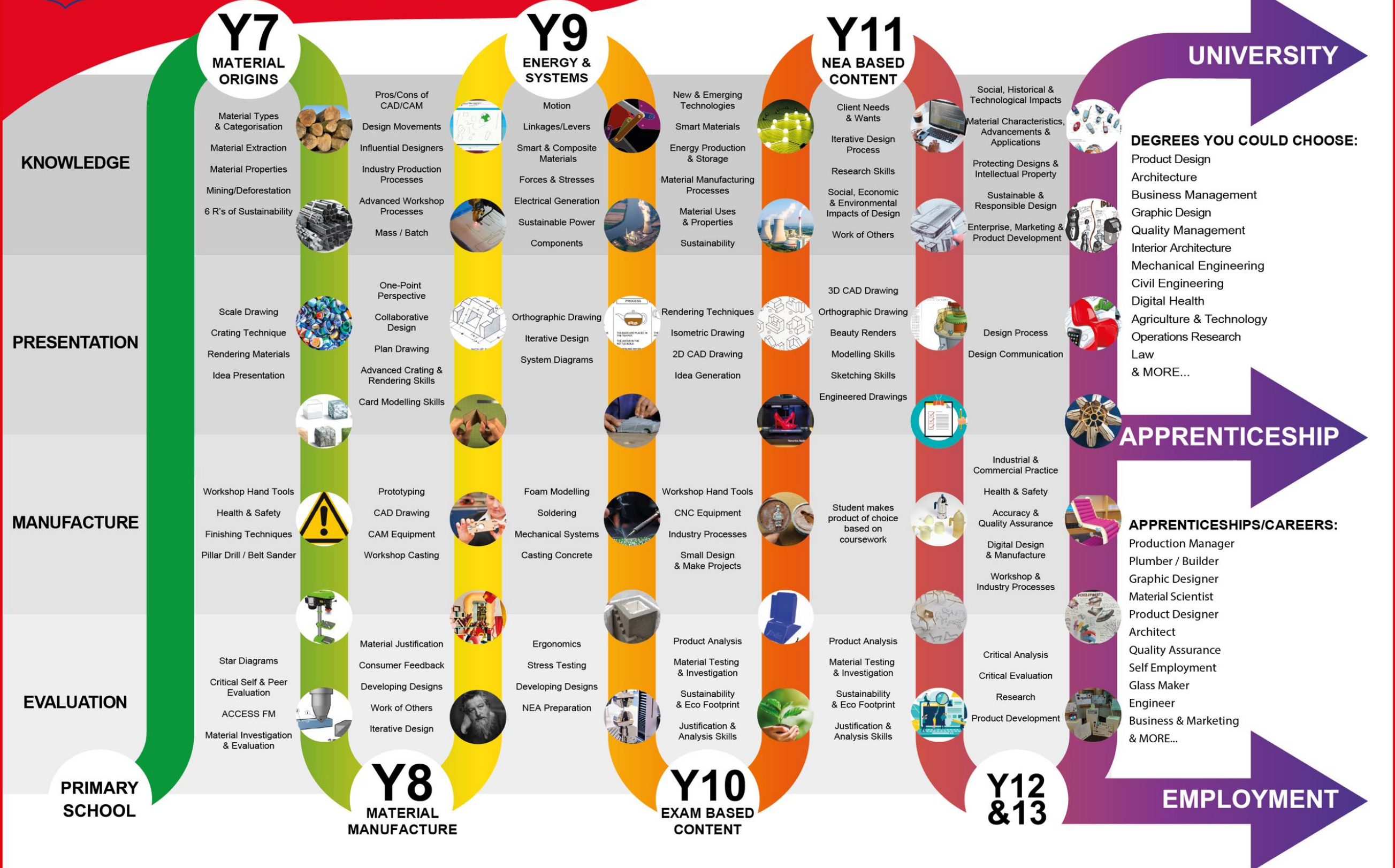




DESIGN & TECHNOLOGY LEARNING JOURNEY



KNOWLEDGE

PRESENTATION

MANUFACTURE

EVALUATION

PRIMARY SCHOOL

**Y7
MATERIAL ORIGINS**

- Material Types & Categorisation
- Material Extraction
- Material Properties
- Mining/Deforestation
- 6 R's of Sustainability

- Scale Drawing
- Crating Technique
- Rendering Materials
- Idea Presentation

- Workshop Hand Tools
- Health & Safety
- Finishing Techniques
- Pillar Drill / Belt Sander

- Star Diagrams
- Critical Self & Peer Evaluation
- ACCESS FM
- Material Investigation & Evaluation

- Pros/Cons of CAD/CAM
- Design Movements
- Influential Designers
- Industry Production Processes
- Advanced Workshop Processes
- Mass / Batch

- One-Point Perspective
- Collaborative Design
- Plan Drawing
- Advanced Crating & Rendering Skills
- Card Modelling Skills

- Prototyping
- CAD Drawing
- CAM Equipment
- Workshop Casting

- Material Justification
- Consumer Feedback
- Developing Designs
- Work of Others
- Iterative Design

**Y8
MATERIAL MANUFACTURE**

**Y9
ENERGY & SYSTEMS**

- Motion
- Linkages/Levers
- Smart & Composite Materials
- Forces & Stresses
- Electrical Generation
- Sustainable Power
- Components

- Orthographic Drawing
- Iterative Design
- System Diagrams

- Foam Modelling
- Soldering
- Mechanical Systems
- Casting Concrete

- Ergonomics
- Stress Testing
- Developing Designs
- NEA Preparation

**Y10
EXAM BASED CONTENT**

- New & Emerging Technologies
- Smart Materials
- Energy Production & Storage
- Material Manufacturing Processes
- Material Uses & Properties
- Sustainability

- Rendering Techniques
- Isometric Drawing
- 2D CAD Drawing
- Idea Generation

- Workshop Hand Tools
- CNC Equipment
- Industry Processes
- Small Design & Make Projects

- Product Analysis
- Material Testing & Investigation
- Sustainability & Eco Footprint
- Justification & Analysis Skills

**Y11
NEA BASED CONTENT**

- Client Needs & Wants
- Iterative Design Process
- Research Skills
- Social, Economic & Environmental Impacts of Design
- Work of Others

- 3D CAD Drawing
- Orthographic Drawing
- Beauty Renders
- Modelling Skills
- Sketching Skills
- Engineered Drawings

- Student makes product of choice based on coursework

- Product Analysis
- Material Testing & Investigation
- Sustainability & Eco Footprint
- Justification & Analysis Skills

Y12 & 13

- Social, Historical & Technological Impacts
- Material Characteristics, Advancements & Applications
- Protecting Designs & Intellectual Property
- Sustainable & Responsible Design
- Enterprise, Marketing & Product Development

- Design Process
- Design Communication

- Industrial & Commercial Practice
- Health & Safety
- Accuracy & Quality Assurance
- Digital Design & Manufacture
- Workshop & Industry Processes

- Critical Analysis
- Critical Evaluation
- Research
- Product Development

UNIVERSITY

DEGREES YOU COULD CHOOSE:

- Product Design
- Architecture
- Business Management
- Graphic Design
- Quality Management
- Interior Architecture
- Mechanical Engineering
- Civil Engineering
- Digital Health
- Agriculture & Technology
- Operations Research
- Law
- & MORE...

APPRENTICESHIP

APPRENTICESHIPS/CAREERS:

- Production Manager
- Plumber / Builder
- Graphic Designer
- Material Scientist
- Product Designer
- Architect
- Quality Assurance
- Self Employment
- Glass Maker
- Engineer
- Business & Marketing
- & MORE...

EMPLOYMENT