

DESIGN TECHNOLOGY A LEVEL AND ENGINEERING BTEC SUPER-CURRICULAR

AIMING FOR THE TOP AND ASPIRING HIGH

Reading Tasks

101 Things I Learned in Architecture School

101 Things I Learned in Architecture School by The MIT Press

Concise lessons in design, drawing, the creative process, and presentation, from the basics of “How to Draw a Line” to the complexities of color theory. This is a book that students of architecture will want to keep in the studio and in their backpacks.

The Complete Buildings and Projects

The Complete Buildings and Projects by Zaha Hadid

With her most recent commission, Cincinnati’s Contemporary Arts Center, architect Zaha Hadid becomes the first woman ever to design an American museum.

Invention a Life

Invention: a Life by James Dyson

Dyson has become a byword for high-performing products, technology, design, and invention. Now, James Dyson, the inventor and entrepreneur who made it all happen, tells his remarkable and inspirational story.

Design 20th Century Icons

Design 20th Century Icons by Volker Albus, Reyer Kras & Jonathan M. Woodham

The stunning objects in this fully illustrated volume include furniture and household appliances, cars and toys as well as many other design items which transcended their everyday utility to achieve iconic status during the twentieth century.

Architecture 101

Architecture 101: From Frank Gehry to Ziggurats, an Essential Guide to Building Styles and Materials by Nicole Bridge

A crash course in designing and constructing buildings. Too often, textbooks turn the noteworthy details of architecture into tedious discourse that would put even Frank Gehry to sleep.

Think like an engineer

Think like an engineer by Guru Madhavan

Dubai’s Burj Khalifa – the world’s tallest building – looks nothing like Microsoft’s Office Suite, and digital surround sound doesn’t work like a citywide telecommunication grid. Yet these engineering feats have much in common: they are the result of a unique thinking process combining abstract and structured thinking, common sense and great imagination. They are born of the engineering mindset.

Fifty Things that Made the Modern Economy

Fifty Things that Made the Modern Economy by Tim Harford

This book tells the fascinating stories of inventions, ideas and innovations which have helped create the economic world.

The Next Fifty Things that Made the Modern Economy

The Next Fifty Things that Made the Modern Economy by Tim Harford

In this book, Harford once again brings us an array of remarkable, memorable, curious and often unexpected 'things' - inventions that teach us lessons by turns intimate and sweeping about the complex world economy we live in today.

Thomas Heatherwick: Making

Thomas Heatherwick: Making by Thomas Heatherwick

This is the definitive publication on one of the world's most exceptional designers. Including more than 140 projects and hundreds of photographs, illustrations and sketches, this book will excite, inspire and serve as an invaluable resource for creative solutions and the joy of making for many years to come.

Innovative Design

Write about an innovative product that you feel has changed the world.

Write this on A6 colour card for it to be included in the STEM rainbow in B4.

Everyday Product Review

Imagine that you are a design journalist.

Write a review of two different products that you use everyday.

Product Lifecycle

Choose a product from your pencil case. Imagine that you are that product.

Write a story about your lifecycle.

Listening Tasks

Podcast - STEM

Listen to the [Stemettes](#) Podcast

Do you want to expand your knowledge of STEM but don't know where to begin? In this article, they have compiled a list of favourite podcasts by women in STEM to help you get started in the STEM podcasting world.

Designed for Life

Listen to 'Designed for Life' A series of podcasts from creative industry designers who discuss their work, technology and what they have learned through failure, trial and error. Listen [here](#)

Watching Tasks

Lego House

Watch "Lego house - Home of the Brick"
Available on Netflix

Modern Supercar Design

Watch 'Ultimate Supercar' to see the design and manufacturing process that goes into making the modern day supercar.
Available on Disney+

Research Tasks

Subscription

Subscribe to daily and weekly newsletters. [Designboom](#) is the world's first and most popular digital architecture and design magazine.

Want to be an Engineer?

Visit the website - [I want to Study Engineering](#) to find some interesting articles, journals and activities to expand your knowledge of the field of engineering.

A Career in Architecture

If you have an interest in Architecture or are considering it as a future career, then read the following.

- Bachelard, The Poetics of Space
- Davidson Cragoe, How to Read Buildings
- Pallasmaa, The Eyes of the Skin
- Perec, Species of Spaces and other Pieces