# DESIGN & TECHNOLOGY

## SUPER CURRICULUM ACTIVITIES

### WEBSITES:

- Design Museum - https://designmuseum.org/digital-design-calendar
- Autodesk Design Academy: www.autodesk.com/education/design-academy
- Khan Academy: www.khanacademy.org
- Design Boom: www.designboom.com
- Exploratorium: www.exploratorium.edu
- Design Council: www.designcouncil.org.uk
- Smithsonian Learning Lab: https://learninglab.si.edu/
- Maker Share: www.makershare.com

### BOOKS:

- "The Design of Everyday Things" by Don Norman (ISBN: 978-0465050659)
- "Sketching for Product Designers: A Practical Guide" by Koos Eissen and Roselien Steur (ISBN: 978-9063691717)
- "The Universal Principles of Design" by William Lidwell, Kritina Holden, and Jill Butler ISBN: (978-1592535873)
- "The Art of Electronics" by Paul Horowitz and Winfield Hill (ISBN: 978-0521809269)
- "Design Thinking for School Leaders: Five Roles and Mindsets That Ignite Positive Change" by Alyssa Gallagher and Kami Thordarson (ISBN: 978-1483382783)
- "Materials for Design" by Chris Lefteri (ISBN: 978-1-78067-344-8)
- "Making IT Manufacturing Techniques for PD" by Chris Lefteri (ISBN 978-1-85669-749-1)
- " The Pocket Universal Principles of Design" by William Liddell (ISBN: 978-1631590405)
- "The Pocket Universal Methods of Design" by Hannington & Martin (ISBN: 978-1631593741)

### SPECIALIST MAGAZINES/ARTICLES/JOURNALS:

- Design Week Magazine Online - https://www.designweek.co.uk/
- "Make: Magazine" - Provides inspiration, project ideas, and tutorials for makers and DIY enthusiasts.
- "Wired Magazine" - Covers a wide range of topics including design, technology, and innovation.
- "Dwell Magazine" - Focuses on architecture, interior design, and sustainable living.
- "Creative Review" - Explores design, advertising, and visual culture, showcasing innovative projects and trends.
- "Popular Science" - Covers the latest developments in science, technology, and design.
- Dezeen https://www.dezeen.com/ Offers a wide range of articles and news related to architecture, design, and technology.
- Fast Company www.fastcompany.com Provides articles and insights on design, innovation, and business.

- Design Milk www.design-milk.com Features design-related articles, interviews, and product highlights.
- Smashing Magazine www.smashingmagazine.com Focuses on web design, UX/UI, and front-end development, offering informative articles and tutorials.
- Medium Design https://medium.com/tag/design  A platform for designers and design enthusiasts, featuring a variety of articles on design topics.

## PODCASTS:

- "99% Invisible": Explores the unnoticed design and architecture that shape our world: https://99percentinvisible.org/
- "Design Matters with Debbie Millman": Features interviews with influential designers, exploring their creative journeys and insights: https://www.designmattersmedia.com/
- "The Futur": Discusses design, branding, and entrepreneurship, offering valuable insights and advice for designers: https://thefutur.com/podcast
- "The Design of Business | The Business of Design": Explores the intersection of design and business, discussing the impact of design in various industries: https://designobserver.com/podcast
- "50 things that made the modern economy": Series of podcasts about all sorts of products that have changed the way we live; some surprising choices: https://www.bbc.co.uk/programmes/b08k9pv0
- "30 animals that made us smarter ": Series of podcasts about how studying animals and biomimicry has helped humans develop new products: https://www.bbc.co.uk/programmes/w13xttw7/episodes/downloads

## FILMS AND DOCUMENTARIES:

- "Big Life Fix": https://www.bbc.co.uk/programmes/b09g5hwf
- "Objectified" (2009): https://www.imdb.com/title/tt1241325/
- How to Make- https://www.bbc.co.uk/programmes/m000gwzg
- Soup cans and superstars- https://www.bbc.co.uk/programmes/b067ftp7
- Bauhaus 100 - https://www.bbc.co.uk/iplayer/episode/m0007trf/bauhaus-100
- Rams; principles of good design https://vimeo.com/304626830?fbclid=IwAR0F_pw_FKbVLDPKireqhpgXs1N1U8xE0IvmzGFxNaGUEEjIgKqUb9SaAVg
- Abstract: The Art of Design- https://www.netflix.com/gb/title/80057883
- "Eames: The Architect and The Painter": https://www.amazon.co.uk/Eames-Architect-Painter/dp/B008R73NX4
- "Design & Thinking": https://designthinkingmovie.com/
- "The Human Scale": https://www.imdb.com/title/tt2414454/

## YOUTUBE CHANNELS:

- Sketch-a-day: https://www.youtube.com/channel/UCBtSgEZk914z5lnEs_U2J3w
- TED-Ed: https://www.youtube.com/user/TEDEducation
- Arduino: https://www.youtube.com/user/arduinoteam
- SketchUp: https://www.youtube.com/user/SketchUpVideo
- Tested: https://www.youtube.com/user/testedcom
- The King of Random: https://www.youtube.com/user/01032010814

1. FutureLearn:
   - "Introduction to Engineering Design" by The University of Sheffield: https://www.futurelearn.com/courses/engineering-design
   - "How to Make a Comic Book" by The University of Dundee: https://www.futurelearn.com/courses/comic-book
   - "Exploring Everyday Chemistry" by the University of York: https://www.futurelearn.com/courses/everyday-chemistry
2. Coursera:
   - "3D Models for Virtual Reality" by the University of London: https://www.coursera.org/learn/3d-models-virtual-reality
   - "Interaction Design Specialization" (Coursera): Focuses on UI and UX design principles. https://www.coursera.org/specializations/interaction-design
3. edX:
   - "Mechanics of Materials I: Fundamentals of Stress and Strain and Axial Loading" by MITx: https://www.edx.org/course/mechanics-of-materials-i-fundamentals-of-stress-an
   - "Engineering Design and Rapid Prototyping" by the University of Texas at Austin: https://www.edx.org/course/engineering-design-and-rapid-prototyping
   - "Design and Manufacturing" by Delft University of Technology: https://www.edx.org/course/design-and-manufacturing
4. OpenLearn:
   - "Introduction to Finite Element Analysis" by The Open University: https://www.open.edu/openlearn/science-maths-technology/introduction-finite-element-analysis/content-section-0
   - "Introduction to Cyber Security" by The Open University: https://www.open.edu/openlearn/science-maths-technology/introduction-cyber-security/content-section-0
   - "Design Thinking: Creativity for the 21st Century" by The Open University: https://www.open.edu/openlearn/ocw/mod/oucontent/view.php?id=75977

## *ONLINE SEMINARS/LECTURES:*

- V&A Museum: Offers online seminars covering various design and technology topics. Visit their website at www.vam.ac.uk.
- Design Museum: Provides online seminars and workshops on design, including graphic and industrial design. Find out more at designmuseum.org.
- Institution of Engineering and Technology (IET): Offers online resources and seminars focusing on engineering and technology fields. Explore their offerings at www.theiet.org.
- Royal Academy of Engineering: Hosts webinars and workshops on engineering, sustainable design, and future technologies. Visit their website at www.raeng.org.uk.
- STEM Learning: Provides access to webinars, virtual conferences, and design challenges in STEM fields. Learn more at www.stem.org.uk.
- Teach Design: Offers online seminars, training, and resources specifically for design and technology teachers and students. Find them at www.teachdesign.org.uk.
- Design in a nutshell - http://www2.open.ac.uk/openlearn/design_nutshell/
- First Secret of Good Design – TED talk: https://www.youtube.com/watch?v=9uOMectkCCs
- Biomimicry Design – TED talk: https://www.youtube.com/watch?v=k_GFq12w5WU

## SOCIAL MEDIA ACCOUNTS:

- @hilbredt Instagram account.
- Autodesk Education (Instagram: @autodeskstudents): Tutorials and inspiration for design and 3D modelling using Autodesk software.
- Instructables (Instagram: @instructables): DIY projects and step-by-step instructions across various design disciplines.
- Core77 (Instagram: @core77): Design news, features, and articles covering different design fields.
- Make: (Twitter: @make): Projects, tips, and news for the maker community.
- Design Museum (Instagram: @designmuseum): Showcasing design exhibits and concepts.
- Industrial Designers Society of America (Instagram: @idsa_hq): Connecting industrial design enthusiasts and sharing resources.
- Adafruit (Instagram: @adafruit): Electronics projects and resources for design and DIY.

## PLACES TO VISIT:

- Eureka (Seacombe Ferry): https://www.eurekadiscovery.org.uk/
- Museum of Liverpool: https://www.liverpoolmuseums.org.uk/museum-of-liverpool
- Catalyst Science Discovery Centre, Widnes: https://www.catalyst.org.uk
- World Museum, Liverpool: https://www.liverpoolmuseums.org.uk/world-museum
- Williamson Art Gallery and Museum, Birkenhead: https://williamsonartgallery.org/
- Museum of Science and Industry, Manchester: https://www.scienceandindustrymuseum.org.uk/
- National Waterways Museum, Ellesmere Port: https://canalrivertrust.org.uk/places-to-visit/national-waterways-museum
- Manchester Museum of Transport, Manchester: https://www.gmts.co.uk/

## LOCAL CLUBS OR SOCIETIES:

- Wirral Society of Industrial Design: Promotes industrial design in Wirral: http://www.wsid.org.uk/
- Wirral Young Architects: Focuses on architectural design and offers learning opportunities: http://www.wirralyoungarchitects.co.uk/
- Wirral Art School: Provides design technology courses and workshops: https://www.wirralartschool.com/
- Wirral STEM Hub: Organises STEM activities with design and technology elements. Website: https://www.wirralstemhub.co.uk/

## CHALLENGES AND COMPETITIONS:

- FIRST Robotics Competition: https://www.firstinspires.org/robotics/frc
- VEX Robotics Competition: https://www.roboticseducation.org/competition-teams/vex-robotics-competition
- Young Innovators' Competition (IET): https://education.theiet.org/young-innovators-competition/
- National STEM Video Game Challenge: https://stemchallenge.org/

- Design Squad Global Challenges: https://pbskids.org/designsquad/global-challenges/
- Maker Faires and Maker Challenges: (Find local Maker Faires or search for online maker challenges in your area)
- Design Ventura Mini Challenge - https://ventura.designmuseum.org/2020/03/30/design-ventura-online-mini-challenge/
- James Dyson Award- https://www.jamesdysonfoundation.co.uk/james-dyson-award.html
- Arkwright scholarship- https://www.arkwright.org.uk/
- #thinkdo activities - http://www.julieboyd.co.uk/free-resources/thinkdo-cards/thinkdo-quick-activities/
- Techdoodle activities - http://www.julieboyd.co.uk/free-resources/techdoodle-resources.html