T1 iterative	T1 design cycle	T1 double diamond
T1 divergent thinking	T1 convergent thinking	T1 design thinking
T1 design brief	T1 design specification	T1 factor of safety

T1 A design process model in which designers first explore and define the problem, then develop and deliver a solution.	T1 A model of designing in four stages: inquiring and analysing, developing ideas, creating the solution and evaluating.	T1 Repeating stages of the design process, using test results to improve the design each time.
T1 A user-centred way of solving problems: empathise, define, ideate, prototype and test.	T1 Narrowing many possibilities down to the best problem statement or idea.	T1 Generating several possible ideas or solutions rather than seeking a single answer immediately.
T1 A design judgement that must be justified; it does not replace a proper safety review.	T1 A list of measurable requirements that a design solution must meet.	T1 A short statement of the problem, the users, the context and what the solution must achieve.

T1 user-centred design	T1 inclusive design	T1 ergonomics
T1 anthropometrics	T1 anthropometric data	T1 static data
T1 dynamic data	T1 normal distribution	T1 percentile

T1 The design of tasks, products and environments to suit people's capabilities, limitations and needs.	T1 Designing products that as many people as possible can use, including people with disabilities, without special adaptation.	T1 Designing with users involved at every stage, based on their needs, tasks and context.
T1 Body measurements taken in fixed postures, such as stature or hand length.	T1 Measurements of human body dimensions for a defined population.	T1 The measurement of the human body.
T1 A value marking a specified percentage of observations at or below it in an ordered distribution.	T1 A continuous, symmetric bell-shaped probability distribution specified by its mean and standard deviation.	T1 Body measurements taken during movement, such as reach or the range of joint movement.

T1 clearance	T1 reach	T1 cognitive ergonomics
T1 affordance	T1 signifier	T1 mapping
T1 feedback	T1 constraint	T1 mental model

T1 Designing for how people perceive, understand, remember and decide when using products.	T1 The distance a user can stretch to touch or operate something, set from small users in design.	T1 The space between adjoining parts that allows movement or fitting.
T1 The relationship between controls and their effects, such as knobs laid out like the burners they control.	T1 A signal, such as a label or arrow, that shows users where and how to act.	T1 The actions that a design suggests or allows, such as a flat plate suggesting a push.
T1 A user's understanding of how something works.	T1 A design feature that limits possible actions to prevent errors.	T1 Information about an outcome returned to a person or system to guide subsequent action.

T1 information overload	T2 model	T2 mock-up
T2 scale model	T2 prototype	T2 fidelity
T2 proof of concept	T2 iteration	T2 computer-aided design

T2 A full-size model of a product's outside, often non-working, used to check appearance and ergonomics.	T2 A simplified representation of a system used to explain, analyse or predict its behaviour.	T1 Presenting more information than a user can process at once, causing errors and slow decisions.
T2 How closely a model or prototype matches the final product in appearance and function.	T2 An early or representative model used to explore, test or describe a design.	T2 An accurate model made larger or smaller than the real object by a fixed ratio.
T2 Using software to make accurate 2D drawings and 3D models of a design.	T2 Repeating a sequence of instructions or calculations.	T2 An early model that tests whether the main principle of an idea works at all.

T2 virtual prototyping	T2 finite element analysis	T2 simulation
T2 thermoplastics	T2 thermosetting polymer	T2 composite
T2 alloy	T2 smart material	T2 density

T2 Running a model of a circuit on a computer to predict how it will behave.	T2 A computer method that divides a part into many small elements to calculate stress under load.	T2 Testing a design as a computer model before any physical version is made.
T2 A material made by combining distinct components that retain their identities and contribute different useful properties.	T2 A polymer that sets permanently when first heated and cannot be remelted.	T2 Polymers that soften when heated and can be reshaped and recycled.
T2 Mass per unit volume.	T2 A material that changes a property in response to its surroundings and changes back.	T2 A mixture of a metal with other elements, made to improve its properties.

T2 tensile strength	T2 stiffness	T2 hardness
T2 toughness	T2 ductility	T2 brittleness
T2 elasticity	T2 plasticity	T2 stress

T2 A material's resistance to scratching, indentation or other local permanent deformation.	T2 Resistance of a material or part to elastic bending or stretching under load.	T2 The largest pulling stress a material can take before it breaks.
T2 The tendency of a material to break suddenly with little deformation.	T2 The ability of a material to be stretched into a wire without breaking.	T2 the energy per volume to fracture, the area under the stress-strain curve
T2 The internal force per unit cross-sectional area in a material.	T2 The ability of a material to keep a new shape after the force is removed.	T2 The responsiveness of one variable to a change in another, often measured as a ratio of percentage changes.

T2 strain	T2 Young's modulus	T2 strength-to-weight ratio
T2 wasting	T2 forming	T2 injection moulding
T2 vacuum forming	T2 additive manufacturing	T2 computer-aided manufacture

T2 A material's strength divided by its density, used when mass matters.	T2 Stress divided by strain in the elastic region: a measure of a material's stiffness.	T2 The fractional change in a dimension, such as extension divided by original length.
T2 Forcing molten plastic into a closed mould, where it cools into the shape of the part.	T2 Manufacturing by shaping material without removing it, often when hot or liquid.	T2 Manufacturing by removing material from a larger piece, such as cutting, drilling or milling.
T2 Using a computer design to control manufacturing machines.	T2 Building a part layer by layer from a digital model, as in 3D printing.	T2 Heating a plastic sheet and sucking it over a mould to form a thin shell.

T2 computer numerical control	T2 one-off production	T2 batch production
T2 mass production	T2 mass customisation	T2 automation
T2 just-in-time	T2 Lean production	T2 nominal size

T2 Making a set of identical products together before changing to another set.	T2 Making a single product to order, usually by skilled workers.	T2 Control of machine tools by programmed instructions from a computer.
T2 Using technology to carry out tasks with reduced need for direct human control.	T2 Mass production that lets each buyer choose colours, sizes or features of their own product.	T2 Making large numbers of identical products on an assembly line, often automated.
T2 The intended size of a dimension, before its tolerance is applied.	T2 A production approach that aims to remove every kind of waste.	T2 A production and inventory approach in which supplies arrive close to when they are needed, reducing stock held.

T2 tolerance	T2 accuracy	T2 precision
T2 fit	T2 clearance fit	T2 transition fit
T2 interference fit	T2 clearance	T2 tolerance stacking

T2 How closely repeated measurements agree.	T2 How close a measurement is to the true value.	T2 The permitted variation from a specified dimension or other measured requirement.
T2 A fit in which a pair of parts may have a small gap or a small overlap.	T2 A fit in which there is always a gap between shaft and hole, so the parts slide or turn.	T2 How a shaft and a hole go together, decided by their tolerances.
T2 The adding up of tolerances when several parts are placed in a chain.	T2 The space between adjoining parts that allows movement or fitting.	T2 A fit in which the shaft is always larger than the hole, so the parts are pressed together.

T2 quality control	T2 quality assurance	T2 destructive testing
T2 non-destructive testing	T2 user trial	T3 sustainability
T3 triple bottom line	T3 embodied energy	T3 carbon footprint

T2 Testing a sample until it fails, which destroys the sample.	T2 Planned procedures designed to prevent defects and ensure that products or services meet required standards.	T2 Checking products or processes against standards to identify defects or unacceptable variation.
T3 The ability to maintain an activity over time without exhausting the resources or conditions it depends on.	T2 Testing a product or prototype with real users to see how well it works for them.	T2 Checking a part for flaws without damaging it, such as by ultrasound or X-ray.
T3 The total greenhouse gas emissions caused by a product, in kilograms of carbon dioxide equivalent.	T3 The total energy used to extract, process, make and transport a product before it is used.	T3 Judging a design by its environmental, social and economic sustainability together.

T3 life cycle assessment	T3 linear economy	T3 circular economy
T3 cradle to cradle	T3 design for disassembly	T3 durability
T3 planned obsolescence	T3 right to repair	T3 invention

T3 An economy that keeps products and materials in use through repair, reuse, remanufacture and recycling.	T3 An economy in which materials are taken, made into products, used and thrown away.	T3 Measuring a product's environmental impact at every stage from raw materials to disposal.
T3 The ability of a product to last a long time in use without failing.	T3 Designing products to be taken apart easily for repair, replacement of parts or recycling.	T3 Design in which every material becomes the raw material for something new at the end of life.
T3 A new idea, product or process.	T3 The idea, often in law, that owners should be able to get parts and information to repair products.	T3 Designing a product to become out of date or stop working sooner than needed, so people buy again.

T3 innovation	T3 incremental innovation	T3 radical innovation
T3 disruptive innovation	T3 market pull	T3 technology push
T3 diffusion of innovation	T3 fixed cost	T3 variable cost

T3 A major change that creates a new kind of product.	T3 A small improvement to an existing product.	T3 An invention that has been successfully brought to market and used.
T3 When a new technology leads to new products before a clear demand exists.	T3 When users' needs drive the development of a new product.	T3 A cheaper or simpler product that gradually takes over a market from established firms.
T3 A cost whose total changes with the level of output or activity.	T3 A cost that does not change with output within a specified period and relevant range of activity.	T3 How a new product spreads through a population, from innovators to laggards.

T3 value engineering	T3 intellectual property	T3 patent
T3 registered design	T3 copyright	T3 trademark
T3 open source	T3 greenwashing	T3 appropriate technology

T3 A legal right that protects how a new invention works, usually for about 20 years.	T3 Rights relating to creations of the mind, such as inventions, written works, designs and distinctive signs.	T3 Examining each part of a product to achieve its function at lower cost without lowering quality.
T3 A protected name, logo or symbol that identifies a brand.	T3 Automatic legal protection for original drawings, writing, software and music.	T3 Legal protection for the appearance of a product, such as its shape or pattern.
T3 Technology suited to its users and place: affordable, local materials, locally repairable, low energy.	T3 Making misleading or exaggerated claims that a product is good for the environment.	T3 Designs or software shared freely so that others can use and improve them.

T3 eco-label	T4 primary research	T4 secondary research
T4 product analysis	T4 design brief	T4 design specification
T4 success criterion	T4 clearance	T4 percentile

T4 Research using information that has already been collected for another purpose.	T4 Collecting new information directly to address a research question, rather than relying only on existing sources.	T3 A label showing that a product meets stated environmental standards.
T4 A list of measurable requirements that a design solution must meet.	T4 A short statement of the problem, the users, the context and what the solution must achieve.	T4 Examining existing products closely to learn what works, what fails and why.
T4 A value marking a specified percentage of observations at or below it in an ordered distribution.	T4 The space between adjoining parts that allows movement or fitting.	T4 A measurable requirement, with a test method, used to judge whether a design works.

T4 brainstorming	T4 morphological chart	T4 biomimicry
T4 weighted decision matrix	T4 variable	T4 gantt chart
T4 production plan	T4 risk assessment	T4 evaluation

T4 Designing by borrowing solutions from nature.	T4 A table listing several ways of achieving each function, combined to make new ideas.	T4 Generating many ideas quickly without judging them.
T4 A chart showing project tasks as bars against time.	T4 A quantity or named value that can change or take different values.	T4 A table that scores ideas against criteria, with more important criteria given larger weights.
T4 A reasoned assessment of something's quality, effectiveness or significance against relevant criteria.	T4 Identifying hazards, who could be harmed and how, and the measures that control the risk.	T4 A plan listing the stages, materials, tools, quality checks and time needed to make a product.

T4 academic integrity		

		T4 Submitting only your own work as your own, and acknowledging all sources and help.