

Year 8: functionality and aesthetics.

Product comparison - Form vs function

Form is the shape, look and feel of something. **Function** is how something works or is used.

Form follows function is a principle of design associated with late 19th- and early 20th-century design, which states that the shape of a building or object should primarily relate to its intended function or purpose.

Natural structures created by nature are all around us and we use them to inspire our own designs. When you look at the complexity of many natural structures it is no surprise that designers and engineers look to nature for inspiration for:

- a form that improves functionality
- a structure that increases strength
- a shape that improves aesthetics

Biomimicry is the term used to describe our use of forms, structures and systems found in nature

- Leonardo da Vinci obsessed over birds in his dreams of flight
- The Wright Brothers studied photographs of various birds while they were designing their first aircraft.

Task: Research how the study of shark skin can assist in improving the design of surfaces?

Organic vs geometric shapes

Organic forms are often asymmetrical and irregular and lack pattern or repetition. Geometric forms are uniform and many are also symmetrical, in nature they are often found repeated to create structures and patterns

Task: Research examples of a famous architectural structure that incorporates geometric forms from nature.

Organic architecture

Architect Frank Lloyd Wright believed a building should be in harmony with its surroundings.

Task: Create a mood board of buildings that showcases organic architectural principles

Fibonacci

Research shows that some forms are universally aesthetically pleasing. An example is the spiral, a form widely found in nature.

Anthropomorphism is when we identify human characteristics in manmade and natural forms. It has been found that when products seem to resemble human traits, consumers view the product more positively. Many designers have used this as a tool to make their product more appealing.

Task: Provide an example (other than Henry) of a product that uses anthropomorphism.

Systems inspired by nature.

A traditional **linear economy** uses raw materials, that we make into a product and throw away after use. We are inspired not only by natural structures but also by the systems we find in nature. The **natural cycle** of life is a zero-waste system which constantly transfers energy. The **circular economy** copies the tried and tested system laid out by nature, re-thinking the way we make and use products.

Good design. As designers we must ensure that we consider and balance both form and function as well as taking into account aesthetics. A balanced design should be fit for purpose, feel right and look good.

Vocabulary associated with this unit: Aesthetics, anthropomorphic, biomimicry, camouflage, form, function, geometric, organic architecture, harmony, balance, brief, analysis, life cycle, circular economy, Fibonacci sequence, asymmetrical

Task: define these words using [this website](#) to help you.