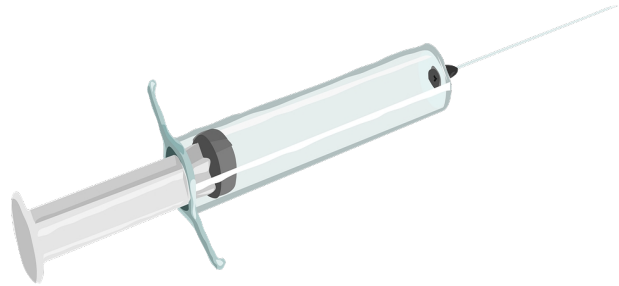


# Bio-Inspired Objects



Here are few objects you must have used or seen.

Can you think of something from the natural world that has a similar form or performs a similar function?

Above images are representative of everyday objects that can be kept for display. You can keep other items like Velcro, suction cup-stand for cellphones, models of ship, model of a windmill emphasizing the blades, sponge etc.

Image Source: Pixabay (Public Domain/ Creative Commons CC0)

# Bio-Inspired Objects

## Background

Nature has inspired numerous human inventions and one can learn different functions using nature as a model to create sustainable designs (Benyus, 1997). Biomimetics is the “mimicking” of natural models, processes or systems for the purpose of solving human beings' everyday simple or complex problems. Biomimetics links biological sciences and design and is a growing area of design research (Soba et al., 2016). An interesting facet of biomimicry is its interdisciplinary approach and many researchers advocate introducing students to biomimetics for its potential to add new, stimulating and creative dimensions in the study of biology (Bhide & Chunawala, 2016), to capture students' attention and foster creativity and encourage critical thinking skills (Schroeter, 2003; Yurtkurana, Kirli & Taneli, 2013). Studies with older students have reported that biomimicry “functioned as a catalyzer for creating a vibrant yet relaxing studio environment for design education; and it aided students in the process of learning from nature whilst raising an awareness of nature...” (Yurtkurana, Kirli & Taneli, 2013, p. 638).

## References

Benyus, J. M. (1997). *Biomimicry: Innovation inspired by nature*. NY: Harper Collins Publishers Inc.

Bhide, S., & Chunawala, S. (2016). Biomimetics: Inspiring biology students beyond the obvious. *Proceedings of 26<sup>th</sup> Biennial International Conference of the Asian Association for Biology Education: Trends in biology education and research: practices and challenges, September 2016* (pp. 58-59). Goa: AABE.

Reed, P. A. (2003). A paradigm shift: Biomimicry: Biomimicry is a new way of linking the human-made world to the natural world. *The Technology Teacher*, Dec. 2003, p. 23.

Schroeter, D. (2013). Introducing biomimicry. Green teacher education for planet earth. Webinars: <https://greenteacher.com/webinars/pastwebinars/>

Soba, A. I., Zaki, B., Aliyu, A. M., & Tanimu, M. (2016). A study of biomimetic architectural traits in a pre-medical school complex in Nigeria: A case-study of faculty of medicine, Kaduna state university (kasu) complex, Kaduna. *Journal of Environment and Earth Science* 6(5), 132-141.

Yurtkurana, S., Kirli, G., Taneli, Y. (2013), Learning from nature: Biomimetic design in architectural education. *Procedia - Social and Behavioral Sciences* 89, 633 – 639.