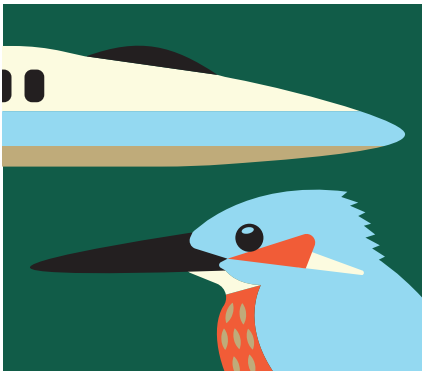


BIOMIMICRY



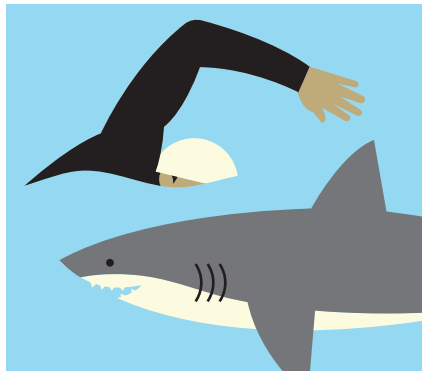
Biomimicry is when humans look to nature to solve their problems. A material, design, system or technology is created using ideas already found in nature.

BIOMIMICRY = MIMICKING BIOLOGY = COPYING NATURE



KINGFISHER / TRAIN

Scientists in Japan used the shape of the Kingfishers head on their bullet trains to lessen the sound and make the train more aerodynamic.



SHARKSKIN / SWIMSUIT

Shark skin is made of dermal denticles, which are tons of overlapping scales. These allow sharks to swim at higher speeds. Scientists used this to make swimsuits for olympic swimmers that worked so well they were banned from competition.

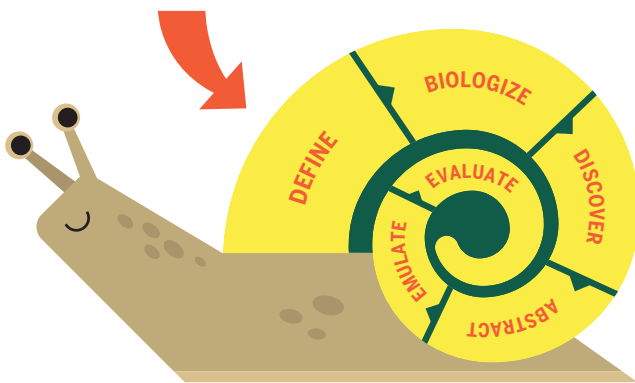


MOSQUITO / NEEDLE

You don't feel a mosquito bite you because of the shape of its proboscis and a numbing liquid it injects. Scientists used this idea to create the microneedle for painless blood draw and injections.

DESIGN SPIRAL

The biomimicry design spiral is a creative tool that gives steps to follow when solving a problem using nature.



DEFINE

What is the problem you want to solve?

BIOLOGIZE/TRANSLATE

Biologize the question = ask the question from nature's perspective. How does nature solve this problem?

DISCOVER

Find the answer in nature. Is there a plant, animal, or ecosystem that has already solved this problem? How do they do it?

ABSTRACT

Study further, and find repeating patterns when nature used a certain process to solve the problem. What is the strategy?

EMULATE

Develop ideas and solutions to your problem based on the solutions observed in nature.

EVALUATE

How does your idea and solution work? Will it be successful for your problem. Start over if more solutions are needed.

Sources: www.biomimicry.org, www.wbdg.org.

BRAVE KIDS
× ART CLUB ×

YOU CAN LEARN FROM NATURE!

You can solve problems and come up with ideas by asking biologized questions. Nature already has a lot of things figured out for us!

DRAW AN ANIMAL	LIST THEIR ABILITIES/CHARACTERISTICS
	<ul style="list-style-type: none">••••••

CREATE YOUR OWN INVENTION	
<p>You can solve problems and come up with ideas by asking biologized questions. Nature already has a lot of things figured out for us!</p> <p>You can solve problems and come up with ideas by asking biologized questions. Nature already has a lot of things figured out for us!</p> 