

# Read About Biomimicry

## BIOMIMICRY DEFINITION

Biomimicry is when people use ideas from nature to solve problems. Plants and animals have different ways to solve problems that have inspired inventions.

*To better understand how nature works...*

## LET'S BREAK IT DOWN!

### Animals solve problems in many different ways.

Animals such as this sugar glider have wing-like structures to help them fly from tree to tree. When they jump, they spread out their arms and legs to help them glide down safely.



### People have been inspired by animals to invent things.

Wingsuits can let people experience flying. The idea for these suits came from the sugar glider, an animal that has wing-like structures between its arms and legs.

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## Some animals have structures used for protection.

An armadillo has a hard covering that can protect it from predators. When an armadillo feels that it is in danger, it curls into a ball. Once the predator goes away, it comes out of the ball.



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## Armadillos have inspired people to solve problems.

The armadillo has inspired someone to create a backpack with a hard surface. The surface of the backpack rolls up to protect things inside from being crushed.

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## Plants have inspired amazing inventions too.

The cocklebur plant gave scientists the idea to create Velcro. The prickly parts of a cocklebur seed can stick to animal fur. This allows the seed to be moved from place to place.



## **BIOMIMICRY VOCABULARY**

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### **Biomimicry**

When people solve problems by getting ideas from nature.

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### **Structure**

A part of something, such as an animal or plant part.

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**Function**

What something does.

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**Problem**

Something that needs to be solved.

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**Solution**

A way to solve a problem.

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**Nature**

Natural things in our world such as animals, plants, mountains and rivers.

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## **BIOMIMICRY DISCUSSION QUESTIONS**

### **What are some examples of structures on an animal or plant that protect them?**

A structure on a plant that protect it are thorns. Some structures on animals that protect them are shells, horns or sharp teeth.

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### **What special structure do the feet of a gecko have?**

The feet of the gecko have lots of tiny hairs that allow the gecko to climb up walls.

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### **Do people have any special body parts that help us survive?**

Yes, we have opposable thumbs that help us grab things. Our eyes and ears can help us know if danger is nearby. Our legs can allow us to run very far.

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### **What kinds of things would be more useful if they were waterproof?**

A raincoat, shoes, furniture or carpet could be more useful if they were waterproof.

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### **How did plants inspire the invention of Velcro?**

The seeds of a cocklebur plant can attach to the fur of animals, so it can be moved from place to place by the animal. Scientists saw this and invented Velcro which uses tiny hooks and special material that are inspired by the seed.

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### **What structure of an armadillo has inspired inventions by humans?**

The hard covering of the armadillo and the way it can roll up into a ball has influenced a back-pack design.

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