Creatividad SILVESTRE

La biomimesis transformando nuestro mundo

WILD Creativity

Biomimicry changing our world

Oregon Museum of Science and Industry
Traveling Exhibitions

OMSI
Oregon Museum of Science and Industry

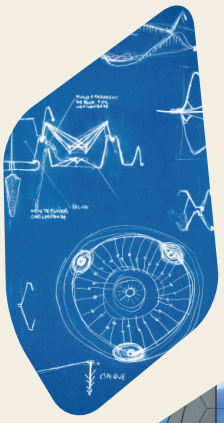
Creatividad Silvestre | Wild Creativity provides interactive learning opportunities that engage visitors in engineering practices with inspiration from the natural world.

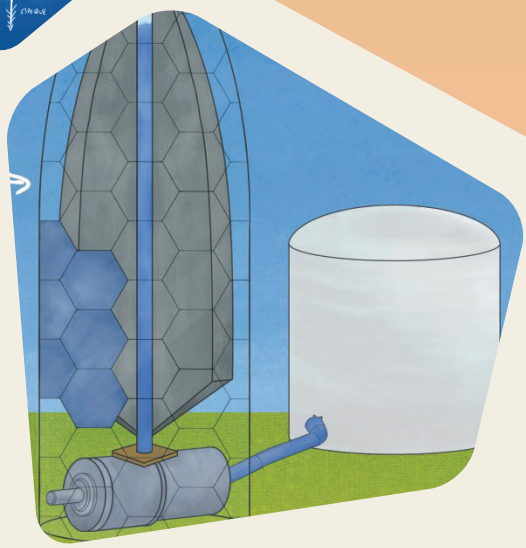
¿Qué es la biomimesis? | What is Biomimicry?

The exhibit entrance orients visitors and offers components that explore introductory biomimicry concepts. Copy includes a definition of biomimicry and examples of common biomimetic designs along with their natural inspirations. A light-up, push-button interactive invites visitors to see examples of useful functions and the natural strategies that achieve them.

Taller comunitario | Community Workshop

This gathering space encourages creative thinking, community building, and exploring more about biomimicry and the people practicing it. Visitors are invited to sit at the workshop table to create their own designs or gather on the bleacher-like seating along the mural wall. Designs can be pinned up to share with future visitors.





La biomimesis en acción | Biomimicry in Action

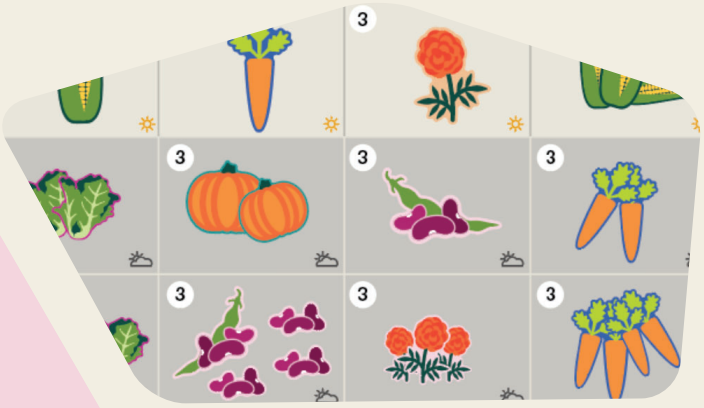
Visitors explore the work of Design Challenge winners and participants in this 5-panel component. Five teams of biomimics are introduced in three panels. Every panel has a large book that features team members, the challenge, and their biomimetic solutions. The fourth panel shows videos of the teams.

Reflective Roof Design

The fifth panel is an interactive that demonstrates The Reflective Roof Design inviting visitors to experiment with prisms to direct light away from the city.

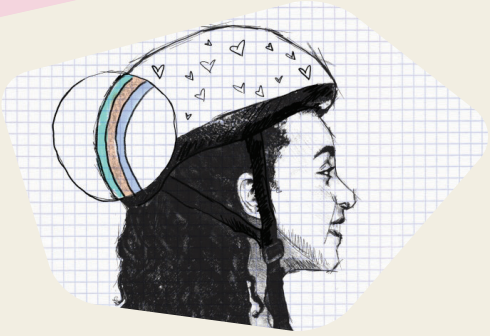
Colabora | Collaborate

At this iterative game, visitors are invited to use a touchscreen interface to design a garden that produces the most yield, which can be improved by mimicking natural ecosystems where certain plants are benefitted by growing near one another. Visitors are prompted to place crops in different squares on the digital garden, then improve their design to grow fresh produce for an urban family. After filling the garden with crops of their choice, on-screen feedback offers a yield score encouraging visitors to try again for a higher yield by utilizing biomimetic systems strategy.



Protege | Protect

Visitors select and stack inserts modelled after hedgehog quills, cat paw pads, and pomelo rinds into a cabinet to design a helmet cushion that will protect a bicycle rider. After closing the door, visitors see a hammer fall on their design. Results are displayed as on-screen feedback. Visitors continue to iterate to improve their design and create the safest possible cushion for a bike helmet.

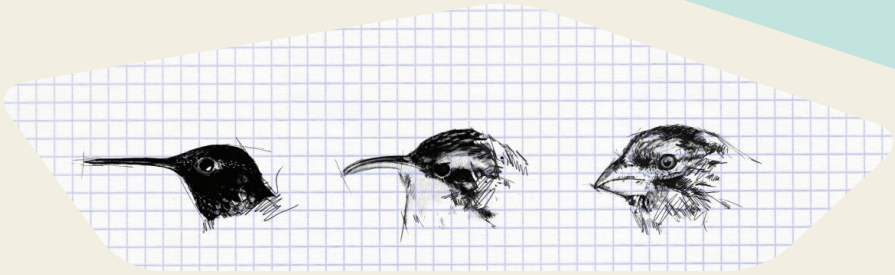


Vuela | Fly

Mimicking natural strategies like flying squirrels, dandelion seeds, and gliding birds, visitors will design, build, and test kite models to generate electricity. Bins provide a variety of materials (paper, pipe cleaners, etc.) for visitors to construct a kite that floats in a wind tube. Once visitors connect their design to a test station and push the button, on-screen feedback displays a real-time measure of the energy generated by their kite encouraging visitors to iterate its design.

Alimenta | Feed

Demonstrating nature's design principle that form follows function, three food gathering tasks challenge visitors find the right tool for the job. Using oversized models of three beaks birds, visitors attempt to crush a seed, gather nectar, or locate insects and determine which beak is best for each task. Panels show the three birds and describe their particular beak adaptations.



Ventila | Ventilate

There are two "mound" entrances in this exhibit and one wind source. Visitors stack prairie dog tunnel "mounds" of different shapes and heights at the entrances to change airflow within the tunnel. An anemometer indicates the current airflow displayed on a digital readout. Data display is immediate, allowing visitors to quickly improve their mound designs.

Salta | Jump

Mimicking how fleas store and release energy to make big jumps, visitors adjust the angle of the launcher and the amount of tension in the spring to see if they can launch a ball (a flea) to a target (a cat, a dog, or a horse). Visitors iterate to improve their aim and learn about stored energy.

Rebota | Bounce

Visitors adjust the angle of trampolines and select the drop height of a ball to see if they can bounce the ball to one of three targets while learning about how kangaroos bounce to gain energy.

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$60,000 for 3-month venue + inbound shipping

2,500 ft² gallery space
3–5 days estimated for installation and take-down
110 VAC 15 amp power
Minimum doorway dims: 48”W x 94”H x 108”L
Minimum floor space to store carts: 400 ft²
Minimum ceiling height: 10 ft.

Designed to reach 9–14 year-olds, and their family, friends, and school groups.

Shipped in (1) 53-ft. trailer

Installation Manual
Marketing Kit
Education Guide

OMSI’s Traveling Exhibits Service
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travlingexhibits@omsi.edu

An interactive exhibit designed and produced by: OMSI

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