



Shapes & Patterns IN NATURE

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Albatros

Prelude

In autumn, the ground is covered in leaves of all shapes and sizes. Some are round like a palm, others resemble a heart, and yet others are adorned with waves or prickly serrations. In the middle of each leaf, nature has fixed a pattern of tiny veins that is unique to that particular leaf, just like our fingerprints are unique to us. Plants, animals, and minerals don't have diverse shapes and colorful patterns for no reason—it's all very important.



Hide-and-seek

Plants and animals use their motley range of shapes and patterns to communicate. Whenever anyone needs a good spooking, dangerous-looking black-and-yellow stripes will definitely work. In winter, the careful brown stoat does wonders with its snow-white camouflage, which allows it to frolic in the snow without a care in the world. And what does the stick insect above mask itself as?

Play of shapes

Leaves of sunflowers, as large as tiny sails, catch more light from the sun, and the narrow leaves of conifers, called nettles, are better for handling the wind when there's a savage storm.



in nature

Have you noticed that some shapes and patterns occur again and again in nature? Long ago, people relied on them to try and understand the invisible order of the wilderness. And today, mathematicians can accurately patterns in mathematical equations.



Chameleon master of disguise

Some animals can change their patterns just like that, depending on their mood. A chameleon, for example, has three layers of miniature skin cells with a colorful pigment. When these cells mix, the little monkey brightens up in surprise, contentment, or annoyance. When tired, it turns pale green. And when in love, its body lights up with the most beautiful colors.

an wave



Leaves

coconsut tree

agave

Leaves catch rays of sunshine in their green palms so that they can grow and live happily. Whether they're broad, narrow, pointed, or heart-shaped, all fulfill their purpose. When the dry season comes they would rather fall than see their beloved plant go thirsty.

linden

whorled

Monare deliciona

Cammon Kauseleet

plant

beech

white

Sipinnate

peacock

edles

horbert - ches

roset le

oak

Se de la construcción de la cons

Salmate



8840180000 royal gramma jewel cichlid Siamese fighting Fins & scales ebra dania Scales are like a fish's tree rings. Read them and know the age of the fish and where it has swum. Is this scale new or a thousand years old? Who cares! A fish, with or without scales, flaps its fins and disappears to the safety of the deep, beyond the curious human gaze. clown killifish agerfish Lectric yellow las Cago Endlers livebe delic frogfing fire eel winted tail marginate taip Fincate tail fin

"escendic tail



Minerals & crystals Bound by a crystal lattice Red greenss

migmatic

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of wondrous beauty. Take a look at the desert rose—doesn't it look more like a flower than a rock? Other minerals enchant the world with their colorful edges, tips, facets, and curves. Blood red, joyously green, turquoise like the ocean. And then there are the prehistoric bugs stuck in honeyed bowls-the

fossilized resin we call amber ...

slag

2. volucia

agaze

Il conglomenza



Take some time to look around. You may see a tiny dotted ladybug spread its shards and fly from a dandelion leaf to a nearby garden where heart-shaped strawberries are poking out their heads. Oh, what's that? A snail is crawling over a hedgehog's prickly spines, dragging its round spiral shell closer to the strawberries . . . These are just a few of the many shapes nature gave to each plant, animal, and mineral. Above ground, underground, even the deep dark seas are teeming with waves, dots, stripes, playful spots, curly spirals, and complicated patterns. Even the tiniest ones have a place in nature and a reason to be there. Camouflage patterns help animals blend in with their surroundings, while the more distinct ones serve them during courtship or when spooking an intruder. Which marvelous shapes and patterns can you find around?



\$ 14.95 Printed in Czech Republic by Tiskárna Helbich, a.s. www.albatrosbooks.com