Art and Design in Nature

Art & Design Basics · Practice Test · 8 Questions

1. What mathematical ratio is frequently observed in the spiral patterns of shells, pinecones, and sunflowers?

A) The Golden Ratio
B) The Pythagorean Theorem
C) The Euclidean Constant
D) The Doppler Effect

2. In color theory, what are the primary pigments found in the structural coloration of a peacock's feathers?

A) Chemical dyes
B) Interference colors
C) Bioluminescence
D) Photosynthetic pigments

3. Which design principle is exemplified by the symmetrical layout of a butterfly's wings?

A) Asymmetry
B) Radial balance
C) Bilateral symmetry
D) Gradient transition

4. What term describes the camouflaging strategy where an animal's pattern mimics the texture of its environment?

A) Disruptive coloration
B) Monochromatic design
C) Primary hue shift
D) Abstract expressionism

5. The hexagonal shape of a honeycomb is an example of which geometric design efficiency?

A) Tessellation
B) Fractal iteration
C) Linear perspective
D) Curvilinear flow

6. Which visual element is most responsible for the appearance of depth in the layered canopy of a rainforest?

A) Negative space
B) Atmospheric perspective
C) Symmetrical framing
D) Radial saturation

7. What pattern type is represented by the self-similar branching of tree limbs or lightning bolts at different scales?

A) Fractals
B) Geometric grids
C) Solid volumes
D) Negative forms

8. In design, what visual property allows a zebra's stripes to create a 'dazzle' effect when moving in a herd?

A) High-contrast patterning
B) Monochrome saturation
C) Smooth gradient blending
D) Negative texture relief