Patterns are all around us, in nature and in human designs. Can you find these patterns at the Museum? How about at home?

**LEVEL 1**

**CENTRAL ATRIUM**
All insects & butterflies • Millipede
Butterfly wing • Bricks in the floor

**GEMS & MINERALS**
**ENTRANCE**
Stalagmite • Pyrite • Hematite

**CRYSTAL TREASURE**
Crystal formations

**CARBONATES**
Rhodochrosite B (pink slab)
Manganocalcite A (light pink)

**SILICATES**
Microcline (green)

**CRYSTALLINE QUARTZ**
Amethyst cross-section
(DMNH 5389)

**GEMS**
Salvador Dali Topaz

**LEVEL 2**

**EDGE OF THE WILD**
Bighorn sheep horns
Deer Antlers • Trees, leaves
Dung beetle

**AUSTRALIA & SOUTH PACIFIC**
Eucalyptus • Superb lyrebird
Lyrebird tail • Coral • Seashells
Short-nosed echidna

**LEPRINO FAMILY ATRIUM**
Look out to City Park, the Denver Skyline, and beyond. What patterns do you see?

**LEVEL 3**

**PREHISTORIC JOURNEY**
PALEOZOIC
Coral • Trilobite
Cephalopods • Shark skin

KANSAS COASTLINE
Cockroach • Dragonfly wing
Early conifer • Lycopod bark

MESOZOIC
Turtle shell • Ammonites
Stegosaurus scutes

CENOZOIC
Cracked dirt • Australopithecus
Mammoth tusks • Garfish scales

**EXPLORE COLORADO**
Trees, leaves, rivers, mountains
Great blue heron • Tarantula
Cactus

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Test your skills by identifying patterns in these Museum objects. Review the color-coded descriptions above for help.

**Symmetry**
Two or more identical parts reflected over an axis

**Spirals**
Curls showing growth patterns, often with golden ratio proportions

**Voronoï**
Tight cells arranged around seed points

**Fractals**
Repeating patterns of different sizes

**Tessellations**
Repeating patterns without gaps

The golden ratio
A common proportion in which
\[
\frac{a}{b} = \frac{a+b}{a} = 1.618
\]

Find the golden ratio!
Hold this edge of the paper in front of an object and close one eye.

Move the paper forward and backward until the object aligns to the orange rectangle. Do you see any golden ratio proportions?

Test your skills by identifying patterns in these Museum objects. Review the color-coded descriptions above for help.

**Numbers in Nature**
A Mirror Maze

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Denver Museum of Nature & Science

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