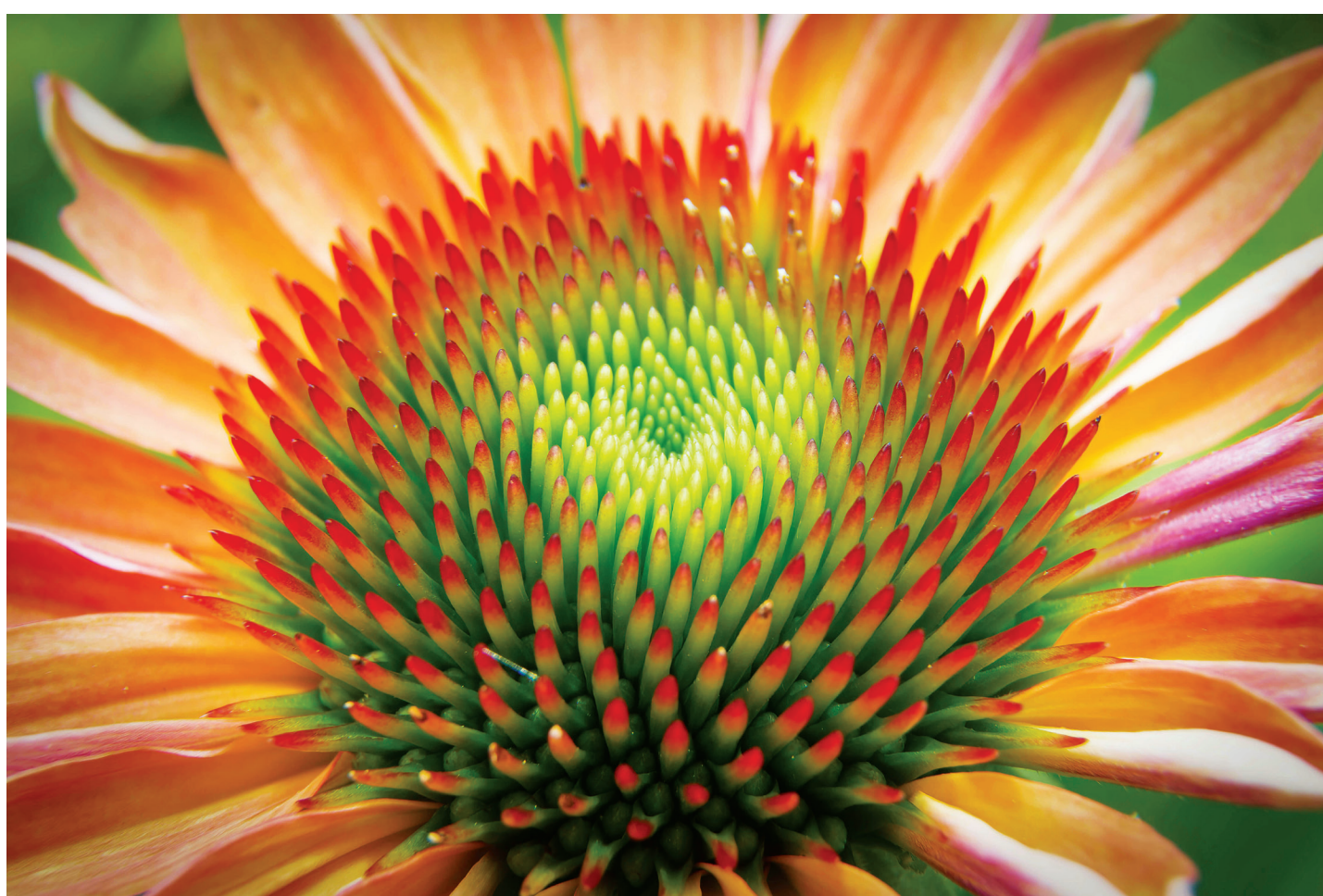


A Beautiful World

Visual beauty is a sense experience that brings an awareness of pleasure to the observer. Appreciation of beauty varies among individuals, but most people are attracted to elements that relate to symmetry, color, pattern, and form.

Symmetry and Mathematics

Symmetry gives structure to beauty and often follows mathematical rules. The Fibonacci sequence begins with 0 and 1, and each new number is the sum of the two before it. This sequence produces the elegant golden spiral, seen in flowers, pinecones, and shells, showing how mathematics shapes the beauty of the natural world.



Spirals of floretes in *Echinacea* follow a Fibonacci sequence.

Image: Marco De Luca / pexels



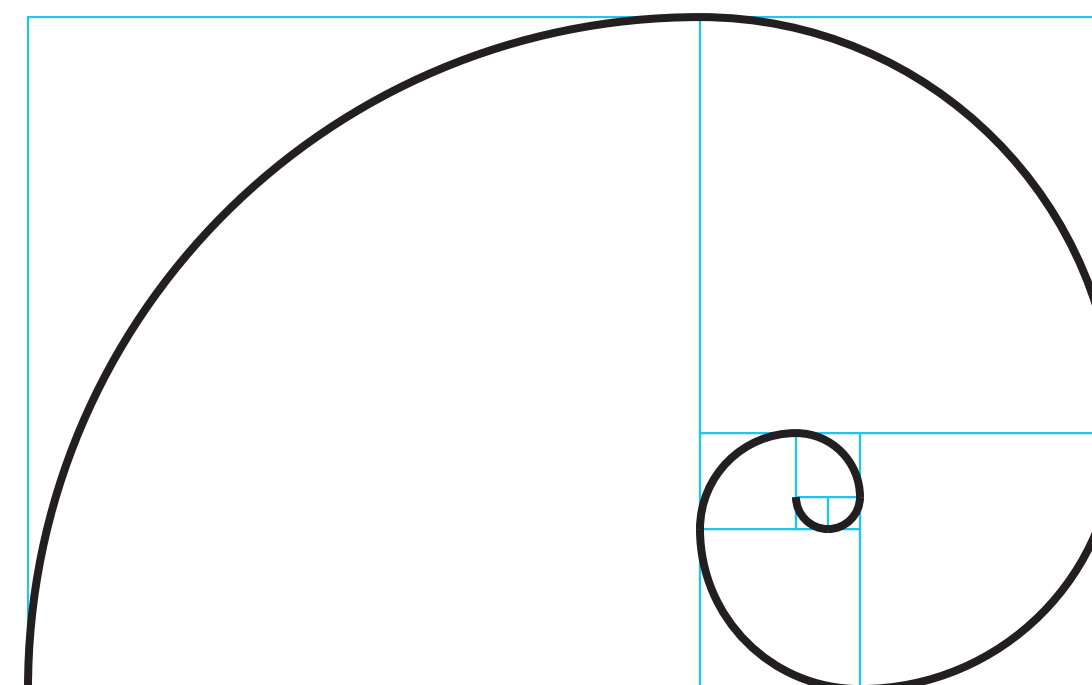
Image: Craig Stottlemeyer



The Fibonacci sequence can be found in the way that pineapples grow. The colored lines in the image above indicate parallel rows of scales.

- The red line indicates 8 rows that spiral gradually.
- The blue line indicates 13 rows that spiral at a medium slope.
- The green line indicates 21 rows that spiral at a steep slope.

Image: adapted from photo by Any Lane / pexels



The golden spiral and ratio are based on the Fibonacci sequence.

Image: Beth Stottlemeyer

Beauty and the Beholder

The experience of beauty begins in the brain. The visual cortex interprets information from the eyes and sends it to the brain's emotional centers, where certain patterns may trigger positive or negative responses. When a pattern evokes pleasure, we perceive it as beautiful—a process shaped by the brain's visual and emotional centers.

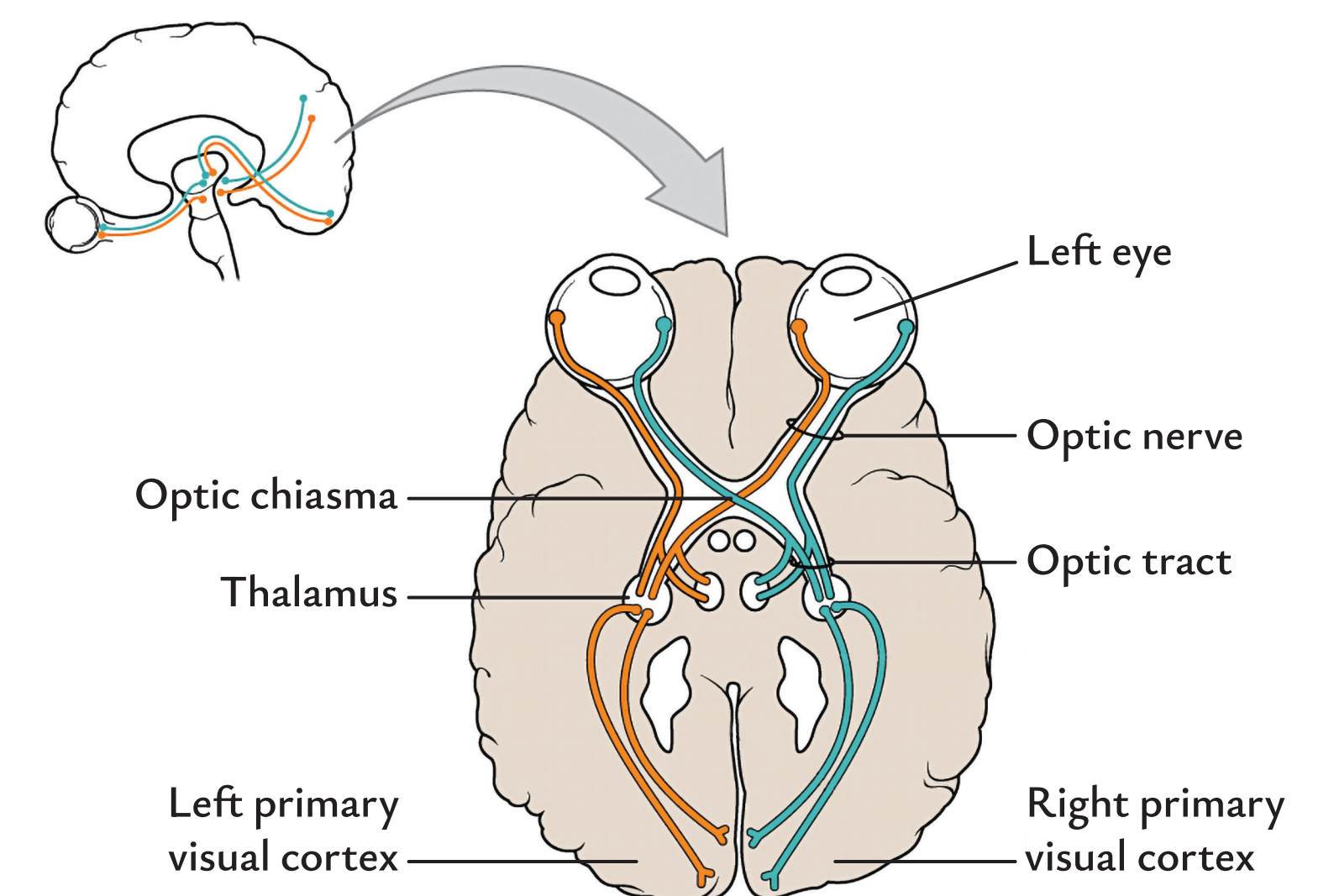


Image: OpenStax, CC by 4.0

Uniquely Human

Other animals have a visual cortex and active pleasure centers, yet humans seem uniquely drawn to seek out and enjoy beauty for its own sake. The human brain has additional capacities not shared with other species, such as speech, self-awareness, and creativity, that deepen this response. From a faith perspective, this may be one of the aspects entailed by the special creation of people in the image of God, with the ability to share in Creator's joy and take pleasure in the beauty of the world He created.