# Pioneering Discoveries in Colors & Shapes

Colors & Shapes · Answer Key · 12 Questions

**1. Who is credited with the first systematic study of color mixing, laying the groundwork for color theory as we know it?**

A) Isaac Newton
B) Leonardo da Vinci
C) James Clerk Maxwell
**D) Johann Wolfgang von Goethe**

**2. What ancient Greek mathematician is renowned for his groundbreaking work on geometry, notably the elements which defined geometric shapes and theorems for centuries?**

A) Pythagoras
**B) Euclid**
C) Archimedes
D) Plato

**3. Which scientist famously demonstrated that white light is composed of all the colors of the spectrum using a prism in the 17th century?**

A) Robert Hooke
B) Christiaan Huygens
**C) Isaac Newton**
D) Galileo Galilei

**4. The invention of the first practical color photography process, the Autochrome Lumière, is attributed to which pair of brothers?**

A) The Wright Brothers
**B) The Lumière Brothers**
C) The Kodak Brothers
D) The Edison Brothers

**5. What fundamental geometric concept, referring to the study of shapes and their properties, was significantly advanced by Blaise Pascal and Pierre de Fermat through their work on probability, which indirectly influenced early calculus and analytical geometry?**

A) Topology
B) Differential Geometry
**C) Projective Geometry**
D) Euclidean Geometry

**6. Who is credited with developing the first systematic method for classifying colors, known as the 'three attributes of color' (hue, value, and chroma)?**

**A) Albert Munsell**
B) Wilhelm Ostwald
C) Johannes Itten
D) Michel Eugène Chevreul

**7. The development of the first successful synthetic blue pigment, Prussian blue, discovered accidentally in the early 18th century, revolutionized the availability of this color. Who is credited with its discovery?**

**A) Johann Jacob Diesbach**
B) Carl Wilhelm Scheele
C) Louis Jacques Thénard
D) André-Marie Ampère

**8. What influential artist and inventor, in the 15th century, is credited with pioneering the use of linear perspective, a mathematical system for representing three-dimensional objects on a two-dimensional surface, fundamentally changing the depiction of space in art?**

A) Leonardo da Vinci
B) Michelangelo
C) Raphael
**D) Filippo Brunelleschi**

**9. The discovery of the wave nature of light, crucial for understanding color phenomena, was largely attributed to the experimental work and theoretical contributions of which scientist in the early 19th century?**

A) Michael Faraday
B) André-Marie Ampère
**C) Thomas Young**
D) James Prescott Joule

**10. What fundamental shape, often considered the simplest polygon, was abstractly studied in ancient mathematics for its inherent symmetry and properties, leading to early insights into geometric perfection?**

A) Square
B) Circle
**C) Triangle**
D) Pentagon

**11. The first commercially successful color television system in the United States, adopted as the NTSC standard, was officially introduced in what decade?**

A) 1930s
B) 1940s
**C) 1950s**
D) 1960s

**12. What early 20th-century movement in art, exemplified by artists like Wassily Kandinsky, heavily explored the expressive and symbolic power of abstract shapes and colors, moving away from representational forms?**

A) Cubism
B) Surrealism
**C) Expressionism**
D) Impressionism