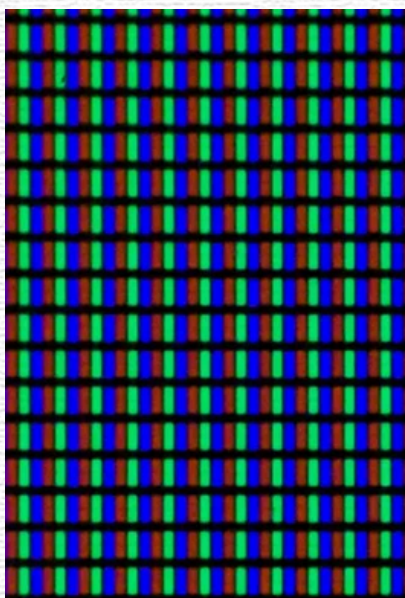




The Secret Magic of Pixels and Screen Colors



The Three Microscopic Flashlights

Screens don't have wet paint or tiny fairies inside them! Every image is made of *millions* of tiny squares called pixels (short for "picture elements").

Inside each pixel are three microscopic flashlights: Red, Green, and Blue (RGB). When light mixes, it follows different rules than art-class paint. Turning Red and Green on together tricks your brain into seeing bright yellow, while turning all three on at full power creates brilliant white light! By changing their brightness, these three colors can create over 16 million shades.

The Baby Photo That Changed History

Screens today show ultra-smooth, high-definition games, but the first digital picture was tiny and blocky! In 1957, an American engineer named Russell Kirsch built the world's first image scanner. For his test, he scanned a black-and-white photo of his newborn son, Walden. The image was only 176 by 176 pixels wide; less than 31,000 dots in total! That grainy, square baby photo proved memories could be turned into computer code and launched digital photography.



Did you know? In art class, mixing red, blue, and yellow paint makes dark brown or black because paint absorbs light. But on a computer screen, mixing glowing Red, Green, and Blue light together at maximum brightness creates pure, shining white!!