# Microsite Outline: Bioluminescence

**Topic:** Bioluminescence (based on the Wikipedia article: https://en.wikipedia.org/wiki/Bioluminescence)

This microsite will explore the phenomenon of bioluminescence—the production and emission of light by living organisms—through a visually immersive and scientifically engaging design. The site will balance clear educational structure with artistic presentation, using color, light, and motion to evoke the glow and mystery of natural light-emitting life forms.

## Page 1 – Introduction: What Is Bioluminescence?

• Hero section with glowing animation (deep sea background).
• Definition and brief explanation of bioluminescence.
• Quick overview of where it occurs (marine, terrestrial, etc.).
• Navigation to main sections.

## Page 2 – Chemistry of Light Production

• Explanation of luciferin, luciferase, and oxygen reaction.
• Diagram of the biochemical process.
• Comparison between bioluminescence and fluorescence/phosphorescence.
• Interactive element: click-to-glow molecule diagram.

## Page 3 – Bioluminescent Organisms

• Showcase of major glowing species: jellyfish, fireflies, fungi, deep-sea fish.
• Image grid or gallery with hover-to-glow effects.
• Map or chart showing global distribution of bioluminescent life.

## Page 4 – Ecological Functions and Purposes

• Overview of uses: communication, mating, predation, camouflage.
• Case studies: anglerfish lure, firefly signaling, marine plankton defense.
• Interactive animation demonstrating defensive bioluminescence.

## Page 5 – Human Applications and Research

• How scientists study and apply bioluminescence (biotechnology, medicine).
• Examples: bioluminescent markers, environmental sensors.
• Embedded short video about modern applications.

## Page 6 – Gallery & Resources

• Full-screen glowing gallery (dark background).
• External links: scientific papers, documentaries, and the Wikipedia source.

• Credits and footer with subtle bioluminescent glow effect.

## Design & Navigation Notes

• Color palette: deep-sea blues, turquoise, and neon greens.
• Typography: Sans-serif with glowing accent headers.
• Responsive grid design adapting image-heavy sections.
• Smooth scrolling transitions between sections.
• Interactive hover animations to simulate glowing organisms.