

The Living Book of **Biology**



INTRODUCTION TO BIOLOGY

LESSON 1: WHAT IS LIFE?

BIOLOGY IS THE STUDY OF LIFE



Science of Life



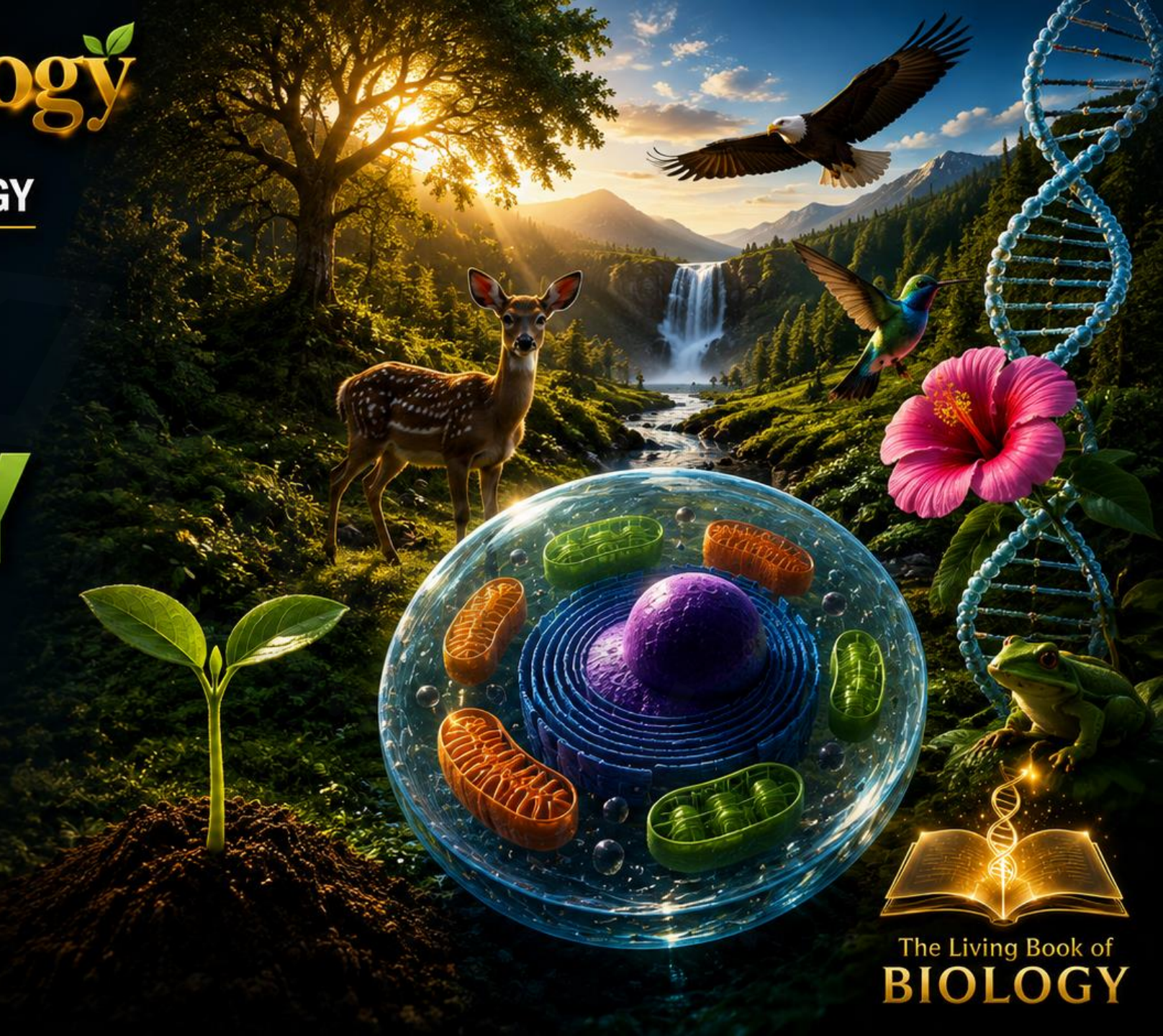
Living Organisms



Structure & Function



Interactions & Evolution



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1 Biology Is the Study of Life



Study of Life



Cells



Living Things



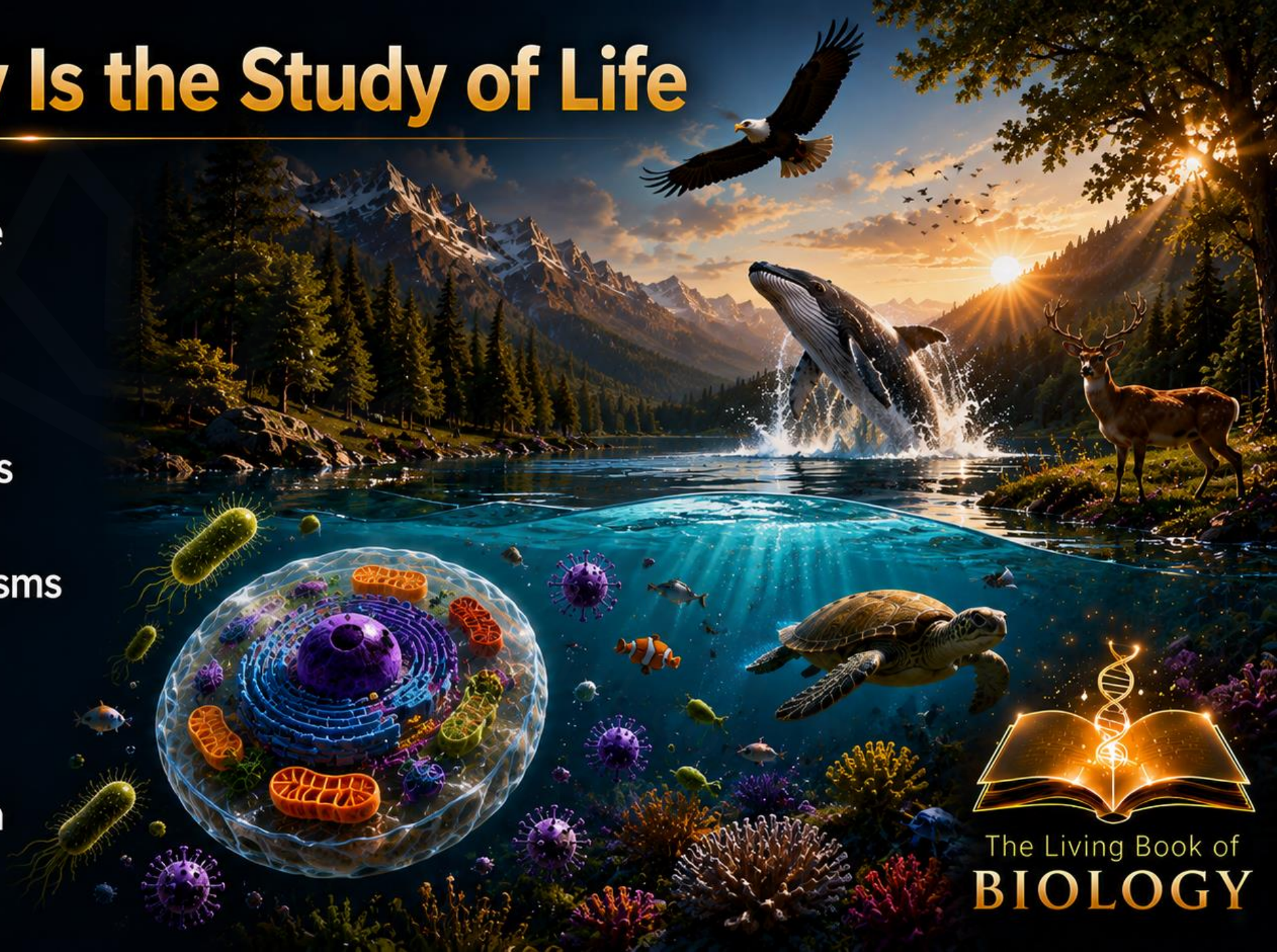
Microorganisms



Evolution



Life on Earth



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2 The Diversity and Unity of Life



Extraordinary
Diversity



Shared Genetic
Information



Common Chemical
Foundations



Common Evolutionary
History



Both Differences
and Unity



All Life Is
Connected



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3

Levels of Biological Organization



Molecules



Cells



Organisms



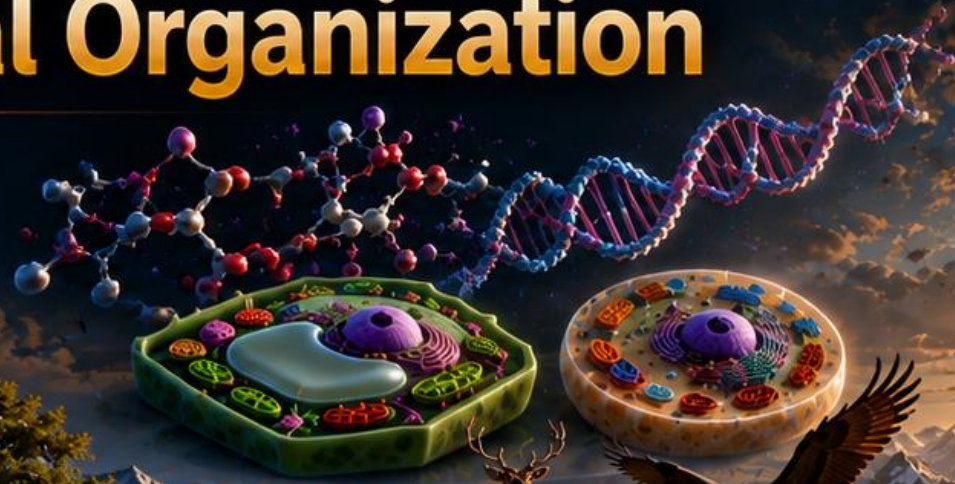
Populations



Ecosystems



Biosphere



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4 The Curious Case of Viruses



Viruses



Genetic Material



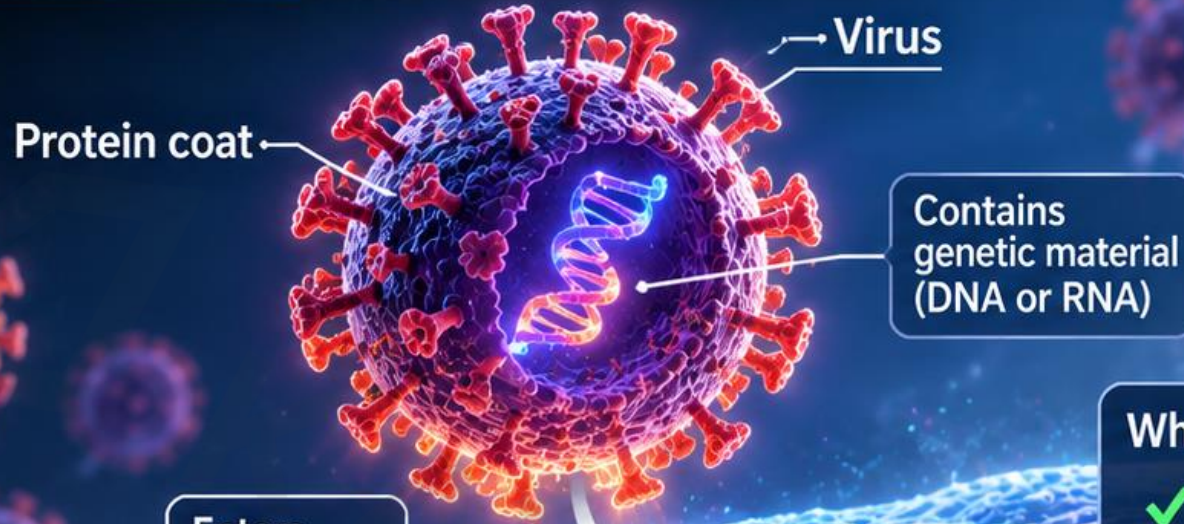
Need Living Cells



Not Clearly Living



Scientists Still Debate



Enters a living cell

Why viruses are special:

- ✓ Have genetic material
- ✓ Evolve over time
- ✗ Cannot reproduce on their own

Host cell



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5

Why Biology Matters



Medicine



Agriculture



Environmental
Protection



Biotechnology



Everyday Life



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6

A Journey of Discovery



A Never-Ending Quest



New Questions



Human Curiosity



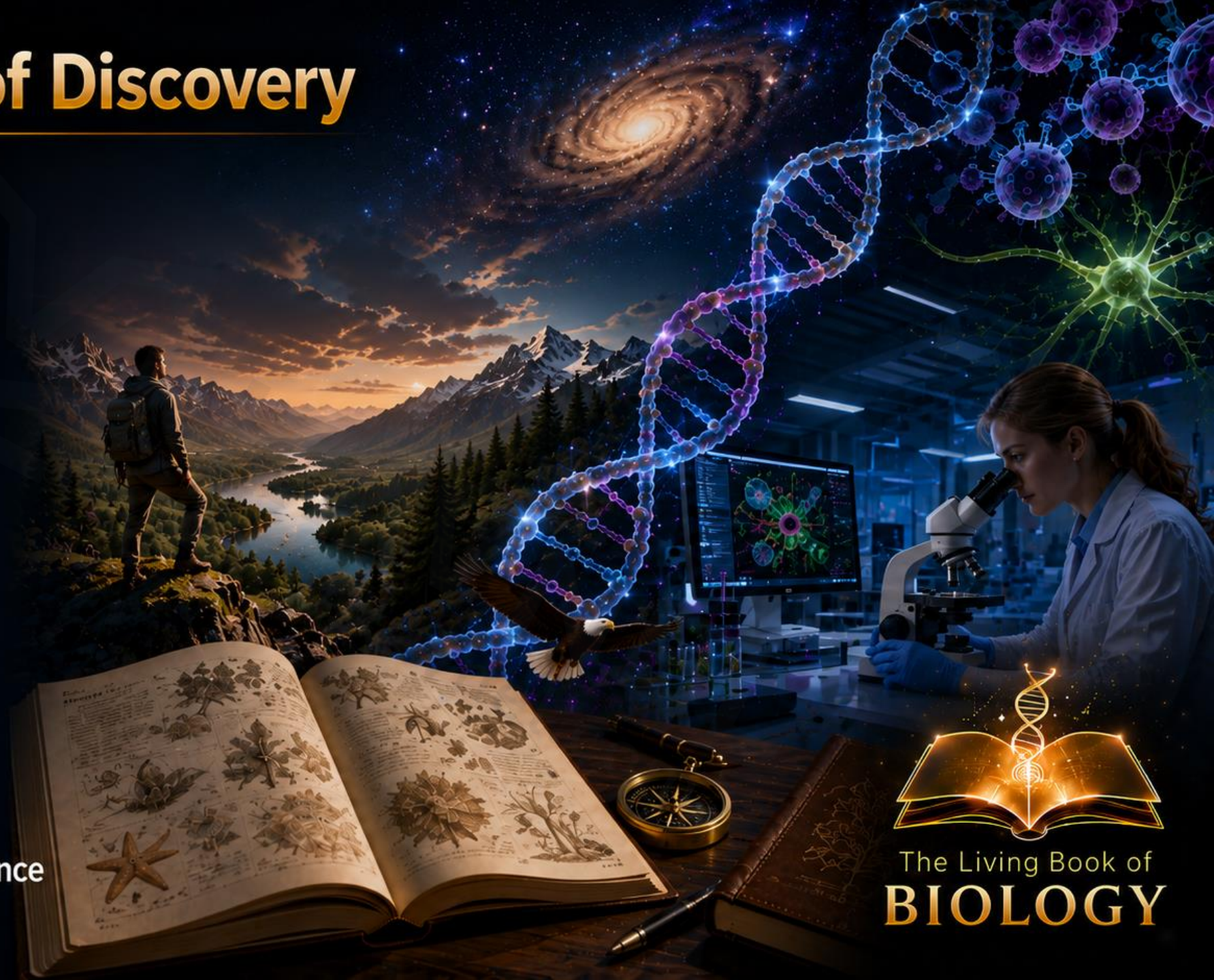
Tools of Discovery



A Better Future



You Can Make a Difference



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Summary



Study of Life



Diversity



Organization



Viruses



Biology Matters



Discovery



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