

TAXONOMY & CLASSIFICATION

Whittaker's Five Kingdom Classification

A diagnostic framework for biological taxonomy



The Shift to a Five-Kingdom Model

EVOLUTIONARY SHIFT

Previous classification models relied heavily on gross morphology, creating taxonomic anomalies by ignoring cellular distinctions. A new, data-driven approach was required.



Name: R.H. Whittaker

Year: 1969

Action: Proposed the Five Kingdom Classification

The Five Biological Kingdoms



Monera



Protista



Fungi



Plantae



Animalia

Criteria Used for Classification

The Five-Kingdom Architecture



Cell Structure

Complexity:
Prokaryotic
vs. Eukaryotic



Body Organisation

Unicellular vs.
Multicellular /
Tissue / Organ



Mode of Nutrition

Autotrophic
vs.
Heterotrophic



Reproduction

Asexual vs.
Sexual
methods



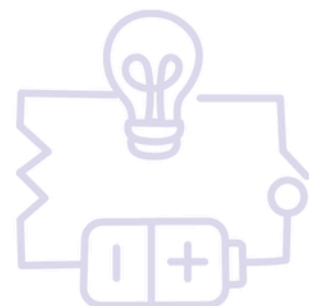
Phylogeny

Evolutionary
lineages and
relationships



You've Learned the Theory. Let's Test Them Now.

$$E=mc^2$$



Turn theory into marks with **unlimited MCQs, smart analysis, and focused revision.**

Practice Now



At prep.topall.app

Key Highlights

- » Free Study Material, Videos & Infographics
- » Push Your Limits with Level-Based Challenges
- » Climb the Leaderboard Among Fellow Aspirants
- » Practice Unlimited MCQs for NEET & JEE
- » Get Clear Explanations, Not Just Marks
- » Track Your Performance Smarter



Comparative Matrix: Cellular Foundations



Monera



Protista



Fungi



Plantae



Animalia

Cell Type

Prokaryotic

Eukaryotic

Eukaryotic

Eukaryotic

Eukaryotic

Cell Wall

Noncellulosic

Present in
some

Present with
chitin

Present
(cellulose)

Absent

**Nuclear
Membrane**

Absent

Present

Present

Present

Present

Comparative Matrix: Macro Characteristics



Monera



Protista



Fungi



Plantae



Animalia

**Body
Organisation**

Cellular

Cellular

Multicellular
/ loose
tissue

Tissue /
organ

Tissue /
organ /
organ system

**Mode of
Nutrition**

Autotrophic
&
Heterotrophic

Autotrophic
&
Heterotrophic

Heterotrophic
(Saprophytic
/ Parasitic)

Autotrophic
(Photosynthetic)

Heterotrophic
(Holozoic /
Saprophytic)

Why It Was Better Than Two Kingdoms



The Inadequacies of Two Kingdoms

- Grouped prokaryotes (bacteria) with eukaryotes.
- Grouped unicellular (Chlamydomonas) with multicellular (Spirogyra).
- Grouped heterotrophs (fungi) with autotrophs (green plants).



The Five-Kingdom Solution

- It separated bacteria, protists, fungi, plants, and animals more scientifically by isolating them based on cell wall composition, cellular complexity, and nutrition.



The Shift: The Five Kingdom Classification moved taxonomy beyond simple morphology.



The Criteria: It is based on multiple scientific criteria: cell structure, body organization, nutrition, reproduction, and phylogeny.



The Impact: It successfully created dedicated kingdoms for Fungi, Monera, and Protista, resolving the evolutionary overlaps of older systems.



You've Learned the Theory.

Now Let's Test It.

Reading notes gets you knowledge.

Practicing MCQs gets you marks.

That's exactly what TopAll Pro is built for.

Try TopAll Pro Now

What TopAll Pro Does Differently

-  **Stuck? Snap it. Solve it. — Doubts AI**
Photo → step-by-step solution in seconds, 24/7
-  **Your AI Coach finds your blind spots**
Concept-level weakness detection — not just chapter-level
-  **4.5 Lakh+ questions. Never run out.**
13× more content than any other prep app in India
-  **Build your own test in 60 seconds**
Pick a chapter, set difficulty — AI does the rest instantly.
-  **AI Recommendation that helps you improve**
AI Recommendation Analysis your Tests and tell you where you need to improve.



Practice the moment you finish studying
Jump in while the concept is still fresh in your head

4.5L+
MCQs

1.5L+
Students

AI Powered
In-Depth Analysis