

Maturitní téma pro školní rok 2023/2024**gymnázium čtyřleté – Inspirace a poznání v souvislostech****Předmět:** **Biologie****Třída:** **4. Aj**

1. Water in organisms
2. Cell biology – ultrastructure of cells
3. Cell biology – membrane structure and transport
4. Cell biology – origin of cells
5. Cell biology – cell division (mitosis, meiosis)
6. Molecular biology – structure RNA and DNA
7. Molecular biology – replication, transcription, translation
8. Biochemistry – molecules to metabolism
9. Biochemistry – proteins & enzymes
10. Biochemistry – photosynthesis
11. Biochemistry – cell respiration
12. Genetics – chromosomes & genes
13. Genetics – inheritance
14. Genetics – genetic modification and biotechnology
15. Evolution – evidence for evolution
16. Evolution – natural selection
17. Evolution – classification, cladistics
18. Evolution – new Eukaryotes system
19. Physiology – digestion & absorption
20. Physiology – blood system & immune system
21. Physiology – respiration, gas exchange and transport, muscle contraction
22. Physiology – neurons & synapses
23. Physiology – hormones & homeostasis
24. Plant physiology – plant growth and regulation
25. Plant morphology – plant tissues, plant organs
26. Animal morphology – animal tissues, animal organs
27. Ecology – species, communities, ecosystems & interactions
28. Ecology – energy flow, elements cycles
29. Ecology – nature conservation, climate change
30. Ethology – animale and human behaviour

Vypracoval: RNDr. Pavel Vlach, Ph.D., RNDr. Vladimíra Moulisová, Ph.D.

Projednáno a schváleno PK dne: 30. 8. 2023