| Unit title | Key concept | Related concepts | Global context | Statement of inquiry | Objectives | Assessment tasks | ATL skills | Content |
|--|---------------|--|---|--|------------------|---|---|--|
| Unit 1 <u>The scientific</u> <u>method</u> September, October 2023 | Perspective | Evidence Patterns | Scientific and technical innovation | Scientific and technological advances enable societies to understand (or at least, to try to understand) the universe | A B C D | Discussion about the scientific method(D) Practical works: analysis of results(C) End-of-unit or chapter tests(A) Examples of design (B) | Communication, Collaboration, Critical thinking, Creative thinking | Elements of the scientific method Experimental approach How to design an experiment Variables in experiment How to understand graphs and tables Data analysis |
| Unit 2 <u>Evolution</u> November 2023 | Change | Environment Consequences Balance | Fairness and development | Evolution is a consequence of the unbalanced opportunities provided by natural selection | A C D | End-of-unit or chapter tests (A) Analysis of similarities between various bones: collection and interpretation of data (C) The social impact of evolution (discussion and written piece of work)(D) | Organization Collaboration Communication Information literacy Critical thinking | Definition of evolution Evidence for evolution (fossil record, homologous structures, breeding) Overproduction, variation, natural selection and inheritance Evolution and sexual reproduction Evolution in response to environmental change |
| Unit 3 <u>The chemistry of</u> <u>life</u> December 2023 January, February, March 2024 | Relationships | Function | Identities and relationships | There is a strong relationship between the structure and function of biologically important compounds | A B C | Practical work on biologically important compounds and enzymes (B, C) End-of-unit or chapter test | Organization Collaboration Communication Information literacy Reflection Critical thinking | Biologically important compounds Proteins and enzymes Carbohydrates Lipids Nutrition (proteins, carbohydrates and lipids in our diet) Conscious eating and healthy diet |

| | Connections | Interaction | Identities | Life is the | А | How to use the | Communication (group | Cells, organelles |
|------------------|-------------|-------------|---------------|--------------|---|------------------------|----------------------|----------------------------|
| Unit 4 | | Form | and | product of | В | microscope (B) | work) | Cell membrane |
| | | | relationships | numerous | | End-of-unit or chapter | Collaboration (group | Cell to cell communication |
| <u>Cells</u> | | | | interactions | | tests(A) | work) | Transport through the |
| | | | | | | | Reflection | membrane |
| April, May, June | | | | | | | | Diffusion |
| 2024 | | | | | | | | Osmosis |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Unit title | Key concept | Related concepts | Global context | Statement inquiry | Objectives | Assessment tasks | ATL skills | Content |
|--|-------------|---------------------|--|--|------------------|--|---|---|
| Unit 1 <u>The human</u> <u>reproductive</u> <u>system</u> September, October 2023 | Development | Consequences | Personal and cultural expression | Sexual development and its consequences for personal and cultural expression | A | Discussion about methods of contraception and social issue (D) End-of-unit or chapter tests(A) | Organization Collaboration-working in groups Communication Information literacy Reflection: self- evaluation Thinking- Transfer | The basic anatomy of human reproductive system Sexual development The menstrual cycle Pregnancy and birth Contraception Personal aspects of sex Sexually transmitted diseases Responsible sexual behaviour |
| Unit 2 <u>The nervous</u> <u>system and</u> <u>drugs</u> November, December 2023 | Systems | Balance Function | Orientation in time and space | Orientation in time and space depends on healthy and balanced nervous system | A B C D | End-of-unit or chapter tests(A) Design scientific investigation about learning in humans (B) Learning in humans, data analysis (C) Application of science: pills, drugs or help, written piece of work (D) | Organization-time management Collaboration Communication Information literacy Media literacy Reflection: self- evaluation Thinking- Transfer | General plan of the nervous system Nerve cells Nerve impulse The brain and behaviour The brain and learning The brain and sleep Drugs and mental illness |
| Unit 3 <u>Water</u> January 2024 | Change | Transformation | Identities and relationship | How and why are transformations of liquid water, ice and vapour crucial for life and the relationship between life and environment? | A B C | Practical work on properties of water important for living beings(B,C) End-of-unit or chapter tests(A) | Organization-time management Collaboration Communication Reflection: self- evaluation Creative thinking (design of experiment) | Water: the structure Hydrogen bonds Properties of water The relationship between the properties of water and life as we know it |

| | Systems | Environment | Globalization | Organisms | А | Discussion about | Organization-time | Communities and |
|----------------------|---------|-------------|----------------|-------------------|---|------------------------|----------------------|-------------------------|
| Unit 4 | | Interaction | and | interact with the | | fossil fuels and our | management | ecosystems |
| Basic ecology | | Energy | sustainability | natural | D | future (D) | Collaboration | Food chains |
| | | | | environment by | | End-of-unit or chapter | Communication | Pyramids of energy |
| | | | | transferring | | tests(A) | Information literacy | The role of bacteria |
| February, March, | | | | matter and | | | Media literacy | The greenhouse effect |
| April, May, June | | | | energy | | | Reflection: self- | and the precautionary |
| 2024 | | | | | | | evaluation | principle |
| | | | | | | | Thinking- | Consequences of a |
| | | | | | | | Transfer | global temperature rise |
| | | | | | | | | on ecosystems |
| | | | | | | | | Populations |
| | | | | | | | | Population growth curve |
| | | | | | | | | Binomial system of |
| | | | | | | | | nomenclature |
| | | | | | | | | Natural classification |

DIFFERENTIATION

For students with:

Dyslexia and dysgraphia

- Bigger font, bigger space between rows
- Dividing text in tests, practice sheets and instruction papers, Internet resources
- More time for reading, checking if the text/questions are understood
- Tolerating writing mistakes
- Allowing longer time for finishing a task if needed
- Working in a pair or a team with pears
- Check the ability of students to read primary and secondary sources and act according to results (more practice, allowing more time for group work)

ADHD

- Bigger font and space between rows
- Shorter paragraphs
- Additional explanation of tables, graphs if needed
- Check which type of graphs/diagrams are suitable for the student
- Fewer questions on tests
- Frequent checking if a student is concentrated on the work
- Questions and enough space for answers should be on the same page
- Work in pairs or small teams (up to four)
- Creating summary sheets when needed
- Encourage students to participate in class discussions
- Commend student on progress
- Regularly make notes about progress in e-dnevnik