

Specialisation "Nature&Technology"

Coordination: Prof. Josef Kriegseisen, MA

Please send enquiries by e-mail to: josef.kriegseisen@phsalzburg.at

1. Content:

In their everyday lives, children encounter the fascinating and diverse world of science and technology, which influence many areas of their lives. They bring these experiences into the classroom. Their natural curiosity motivates the children to deal with different phenomena of everyday life and to explore them experimentally and action-oriented.

The close connection between processes in nature, scientific methods and technical applications forms the central content of the focus. Based on their own experiences and ideas, the students learn new ways of thinking and approaches as well as methods and they experience how scientific questions can be dealt with through the targeted use of these methods. The students are encouraged to contribute their own ideas for scientific and technical solutions and to implement them both theoretically and practically. Methods such as investigating, measuring, comparing, ordering and experimenting are intended to illustrate how to move from everyday explanations to scientific explanatory patterns and, in addition, how technical solutions can be found. Graduates of this focus are experts who challenge and encourage children's interest in science and technology in an age-appropriate way, create an understanding of the connections between nature, technology and everyday life, provide insight into the conditions of the professional and working world and the significance of new technologies.

2. Goals:

- Subject-specific specialisations
- Research-based learning and project teaching
- Constructing, building and experimenting
- Use of extracurricular places of learning

3. Overview of the modules:

5.5: Fire - Water - Earth - Air
6.2: Fascination of Mathematics
6.4: Cycles of nature
6.5: Earth in transition
7.1: Encourage and challenge
7.3: Technology in everyday life
7.4: Scientific Literacy
7.5: Learning field nutrition
8.2: Science and school
8.3: Natural science projects
8.4: Building and construction
8.5: Scientific synopsis

4. Benefit for the own person:

- The students are enabled to prepare scientific-technical questions in a way that is appropriate for the target group and to work on them in an action-oriented manner.
- The students are enabled to challenge and promote the students' interest in scientific and technical phenomena.
- The students are enabled to create and professionally supervise a scientific-technical offer at schools.
- The students gain experience in teaching at out-of-school places of learning.