

**ADDENDUM TO THE SQELT PROJECT**

**SUSTAINABLE QUALITY ENHANCEMENT IN HIGHER EDUCATION LEARNING AND TEACHING.**



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**PERFORMANCE INDICATOR SET FOR HIGHER EDUCATION  
LEARNING AND TEACHING FOR SUSTAINABLE DEVELOPMENT  
(HELTSD)**

**further developed from SQELT *Intellectual Output 09***

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## Some Explanatory Notes on the SQELT Performance Indicator Set

For the content of this section see (SQELT-PI, 2020, 3-8).

### Used Abbreviations

ECTS – European Credit Transfer System

ESD – Education for Sustainable Development

FTE – Full-time equivalent

GDPR – General Data Protection Regulation

HEI(s) – Higher education institution(s)

HELTSD – Higher Education Learning and Teaching for Sustainable Development

ICT – Information and communication technology

LMS – Learning management system

L&T – Learning and teaching

MOOC – Massive Open Online Course

PDRLA – Personalised data required for Learning Analytics; such data are, as a rule, under specific protection by national data and privacy law and particularly by the GDPR (European Union General Data Protection Regulation)

PI(s) – Performance indicator(s)

QM – Quality management

SAS – Student admission system

SDG(s) – Sustainability Development Goal(s)

SDL – Self-Directed Learning

SIS – Student information system

SUSTEX – (satisfaction) surveys of students, surveys of teaching staff and assessment reports by experts/peers (other than students and teaching staff) [abbreviating acronym for three basic appropriate ways of performance data assessment]

# Performance Indicator Set for Higher Education Learning and Teaching for Sustainable Development (HELTSD)

## PIs for Teaching Competences and Processes with HELTSD Relevance and Focus

In Table 1, PIs that are relevant for HELTSD and mainly related to the area of teaching competences and processes are listed, including their measures/performance measurement methods, if appropriate. To facilitate overview in a pragmatic way, the PIs of this area are ordered according to performance types and performance sub-types. This makes it also easier to check which performance types are covered by the listed PIs. The PI list in Table 1 is based on and developed from the corresponding list of the SQELT project (SQELT-PI, 2020).

**Table 1: Comprehensive set of PIs for HELTSD: performance area of teaching competences and processes**

| Performance types   | Performance sub-types   | PIs and their measures/performance measurement methods   |   |
|---|---|--|---|
| Quality of teaching staff, teaching and teaching staff engagement | Teaching skills with respect to HELTSD                              | Proportion of teaching staff who participated in pedagogical training and didactics of HELTSD teaching   |   |
|   | Teaching staff recruitment with respect to HELTSD                   | Quality of teaching courses of recruitment candidates for teaching staff according to didactics of HELTSD teaching that could be assessed by (satisfaction) surveys of students and teaching staff |   |
|   | Publications and presentations dealing with sustainable development |  | Number and/or percentage of non-refereed publications dealing with sustainable development during a specified period (e.g. three years) per FTE (full-time-equivalent) member of teaching staff and/or per subject field and/or per study programme                                   |
|   |   |  | Number and/or percentage of refereed publications dealing with sustainable development during a specified period (e.g. three years) per FTE (full-time-equivalent) member of teaching staff and/or per subject field and/or per study programme                                       |
|   |   |  | Number and/or percentage of double-blind refereed publications dealing with sustainable development during a specified period (e.g. three years) per FTE (full-time-equivalent) member of teaching staff and/or per subject field and/or per study programme                          |
|   |   |  | Number and/or percentage of non-refereed presentations at academic conferences dealing with sustainable development during a specified period (e.g. three years) per FTE (full-time-equivalent) member of teaching staff and/or per subject field and/or per study programme          |
|   |   |  | Number and/or percentage of refereed presentations at academic conferences dealing with sustainable development during a specified period (e.g. three years) per FTE (full-time-equivalent) member of teaching staff and/or per subject field and/or per study programme              |
|   |   |  | Number and/or percentage of double-blind refereed presentations at academic conferences dealing with sustainable development during a specified period (e.g. three years) per FTE (full-time-equivalent) member of teaching staff and/or per subject field and/or per study programme |
|   | Teaching staff competences with respect to sustainable development  |  | Teaching staff's subject-matter competences with respect to sustainable development that could be assessed by satisfaction surveys of students  |
|   |   |  | Teaching staff's methodological competences with respect to sustainable development that could be assessed by satisfaction surveys of students  |
|   |   |  | Teaching staff's vocational training competences with respect to sustainable development that could be assessed by satisfaction surveys of students   |
|   |   |  | Teaching staff's fostering sustainability values (social, ecological, economical) (according to relevant quality criteria to be identified) that could be assessed by satisfaction surveys of students  |

## PIs for Learning Competences and Processes with HELTSD Relevance and Focus

In Table 2, PIs that are relevant for HELTSD and mainly related to the area of learning competences and processes are listed, including their measures/performance measurement methods, if appropriate. To facilitate overview in a pragmatic way, the PIs of this area are ordered according to performance types and performance sub-types. This makes it also easier to check which performance types are covered by the listed PIs. The PI list in Table 2 is based on and developed from the corresponding list of the SQELT project (SQELT-PI, 2020).

**Table 2: Comprehensive set of PIs for HELTSD: performance area of learning competences and processes**

| Performance types                       | Performance sub-types   | PIs and their measures/performance measurement methods  |
|---|---|---|
| Quality learning and student engagement | Student interactions with learning content dealing with sustainable development | Average duration per student interaction with course activities (e.g. solution of exercises, watching videos, listening to lecture, participation in working groups, etc.) dealing with sustainable development that could be assessed by reports generated from Learning Management Systems (LMSs) and/or Learning Analytics tools <sup>1</sup> per student and/or per study programme including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> ) |
|   |   | Average duration per student interaction with course contents dealing with sustainable development that could be assessed by reports generated from LMSs and/or Learning Analytics tools per student and/or per study programme including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )   |
|   |   | Number of repetitive visits to learning contents (e.g. during online learning) dealing with sustainable development that could be assessed by reports generated from LMSs and/or Learning Analytics tools per student and/or per study programme including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )  |

<sup>1</sup> Such as BlackBoard, Moodle, Desire2Learn (e.g. individual user tracking, course-based); Social network analysis generated from Learning Analytics tools such as SNAPP (Social Networks Adapting Pedagogical Practice) (e.g. visualization of student relationships established through participation in LMS discussions); Individual and group monitoring generated from Learning Analytics tools such as GLASS (Gradient's Learning Analytics System) (e.g. visualization of student and group online event activity); Discourse analysis generated from Learning Analytics tools such as COHERE (e.g. visualization of social and conceptual networks and connections).

## PIs for Learning Outcomes and Learning Gain and Their Assessment with HELTSD Relevance and Focus

In Table 3, PIs that are relevant for HELTSD and mainly related to the area of learning outcomes and learning gain and their assessment are listed, including their measures/performance measurement methods, if appropriate. To facilitate overview in a pragmatic way, the PIs of this area are ordered according to performance types and performance sub-types. This makes it also easier to check which performance types are covered by the listed PIs. The PI list in Table 3 is based on and developed from the corresponding list of the SQELT project (SQELT-PI, 2020).

**Table 3: Comprehensive set of PIs for HELTSD: performance area of learning outcomes and learning gain and their assessment**

| Performance types   | Performance sub-types  | PIs and their measures/performance measurement methods  |
|---|--|---|
| Student success   | Coursework performance dedicated to sustainable development                  | Assessment/examination grades and credit points earned in courses dedicated to sustainable development during the study programme including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )   |
|   |  | Percentage of credit points awarded in courses dedicated to sustainable development in relation to total number of credit points including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )  |
| Contact with work environment   | Internships dealing with sustainable development                             | Number and/or percentage of Bachelor students performing an internship dealing with sustainable development per HEI and/or per subject field and/or department/institute and/or study programme including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )   |
|   |  | Number and/or percentage of Master students performing an internship dealing with sustainable development per HEI and/or per subject field and/or department/institute and/or study programme including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )   |
|   | Theses with external cooperation dealing with sustainable development        | Number and/or percentage of Bachelor theses dealing with sustainable development produced in cooperation with industry/external organisations per HEI and/or per subject field and/or department/institute and/or study programme   |
|   |  | Number and/or percentage of Master theses dealing with sustainable development produced in cooperation with industry/external organisations per HEI and/or per subject field and/or department/institute and/or study programme   |
|   |  | Number and/or percentage of doctoral/PhD theses dealing with sustainable development produced in cooperation with industry/external organisations per HEI and/or per subject field and/or department/institute and/or study programme   |
|   |  | Number and/or percentage of doctoral/PhD theses dealing with sustainable development produced in cooperation with industry/external organisations per HEI and/or per subject field and/or department/institute and/or study programme   |
| Employability   | Employer satisfaction with graduates with respect to sustainable development | Job-related quality of graduates/entrants with respect to sustainable development (exemplary quality criteria include graduates' preparation for the job, foundation skills, adaptive skills, teamwork and interpersonal skills, technical skills and domain specific knowledge, employability and enterprise skills) that could be assessed by employer satisfaction surveys     |
| Constructive alignment of study programmes/courses  | Learning outcomes with respect to sustainable development                    | Appropriateness of intended learning outcomes with respect to sustainable development (exemplary quality criteria include clear formulation and transparency of goals of study modules and courses, correlation of intended learning outcomes to contents of study programmes and courses) that could be assessed by SUSTEX   |
|   |  | Teaching staff awareness of existing intended learning outcomes with respect to sustainable development (according to relevant quality criteria to be identified) that could be assessed by SUSTEX  |
|   |  | Design and adjustment of teaching and assessments/examinations to defined intended learning outcomes with respect to sustainable development (according to relevant quality criteria to be identified) that could be assessed by SUSTEX   |
| Student learning gain with respect to Higher Education for Sustainable Development (HELTSD) competences | Sustainability Development Goal 1 (SDG1)-related competences ('No Poverty')  | Students' examination and assessment results (e.g. final grades; assessments of individual exams and performances such as presentations, homework, workshops within study courses and study modules) with respect to SDG1 competences (see Appendix, Table 3a), including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> ) |
|   |  | Students' learning outcome and/or learning gain with respect to SDG1 competences (see Appendix, Table 3a) that could be assessed by (satisfaction) surveys of students, including the lawful protection of the use of students' personalised data for Learning Analytics ( <b>PDRLA</b> )   |

|  |  |  |
|--|--|--|
|  |  | Students' learning outcome and/or learning gain with respect to SDG1 competences (see Appendix, Table 3a) that could be assessed by assessment surveys of teaching staff, including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)   |
|  |  | Students' learning outcome and/or learning gain with respect to SDG1 competences (see Appendix, Table 3a) that could be assessed by satisfaction surveys of employers, including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)  |
|  |  | Students' learning outcome and/or learning gain with respect to SDG1 competences (see Appendix, Table 3a) that could be assessed by assessment reports by experts/peers (other than students and teaching staff), including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)   |
|  | SDG2-related competences ('Zero Hunger')                             | Students' examination and assessment results (e.g. final grades; assessments of individual exams and performances such as presentations, homework, workshops within study courses and study modules) with respect to SDG2 competences (see Appendix, Table 3a), including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA) |
|  |  | Students' learning outcome and/or learning gain with respect to SDG2 competences (see Appendix, Table 3a) that could be assessed by (satisfaction) surveys of students, including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)   |
|  |  | Students' learning outcome and/or learning gain with respect to SDG2 competences (see Appendix, Table 3a) that could be assessed by assessment surveys of teaching staff, including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)   |
|  |  | Students' learning outcome and/or learning gain with respect to SDG2 competences (see Appendix, Table 3a) that could be assessed by satisfaction surveys of employers, including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)  |
|  |  | Students' learning outcome and/or learning gain with respect to SDG2 competences (see Appendix, Table 3a) that could be assessed by assessment reports by experts/peers (other than students and teaching staff), including the lawful protection of the use of students' personalised data for Learning Analytics (PDRLA)   |
|  | SDG3-related competences ('Good Health and Well-Being')              | Ditto for SDG3   |
|  | SDG4-related competences ('Quality Education')                       | Ditto for SDG4   |
|  | SDG5-related competences ('Gender Equality')                         | Ditto for SDG5   |
|  | SDG6-related competences ('Clean Water and Sanitation')              | Ditto for SDG6   |
|  | SDG7-related competences ('Affordable and Clean Energy')             | Ditto for SDG7   |
|  | SDG8-related competences ('Decent Work and Economic Growth')         | Ditto for SDG8   |
|  | SDG9-related competences ('Industry, Innovation and Infrastructure') | Ditto for SDG9   |
| SDG10-related competences ('Reduced Inequalities')                   | Ditto for SDG10  |  |
| SDG11-related competences ('Sustainable Cities and Communities')     | Ditto for SDG11  |  |
| SDG12-related competences ('Responsible Consumption and Production') | Ditto for SDG12  |  |
| SDG13-related competences ('Climate Action')                         | Ditto for SDG13  |  |

|  |  |                 |
|--|--|-----------------|
|  | SDG14-related competences ('Life below Water') competences           | Ditto for SDG14 |
|  | SDG15 ('Life on Land')   | Ditto for SDG15 |
|  | SDG16-related competences ('Peace, Justice and Strong Institutions') | Ditto for SDG16 |
|  | SDG17-related competences ('Partnerships for the Goals')             | Ditto for SDG17 |



## PIs for L&T Environment with HELTSD Relevance and Focus

In Table 4, PIs that are relevant for HELTSD and mainly related to the area of L&T environment are listed, including their measures/performance measurement methods, if appropriate. To facilitate overview in a pragmatic way, the PIs of this area are ordered according to performance types and performance sub-types. This makes it easier to check which performance types are covered by the listed PIs. The PI list in Table 4 is based on and developed from the corresponding list of the SQELT project (SQELT-PI, 2020).

**Table 4: Comprehensive set of PIs for HELTSD: performance area of L&T environment**

| Performance types   | Performance sub-types   | PIs and their measures/performance measurement methods   |
|---------------------|---|--|
| Learning resources  | Physical and virtual library referring to sustainable development   | Number of books referring to sustainable development per book title held in library per student population of subject fields and/or per study programmes   |
|                     |   | Number of periodical print subscriptions referring to sustainable development per subscription title held in library per student population of subject fields and/or per study programmes  |
|                     |   | Number of periodical online subscriptions referring to sustainable development per subscription title held in library per student population of subject fields and/or per study programmes   |
|                     |   | Number and/or percentage of open-access sources (journals, databases, other materials ...) referring to sustainable development available through the HEI's online portals/platforms per study programmes  |
|                     |   | Quality and coverage of books and/or periodical print subscriptions and/or periodical online subscriptions and/or open success sources referring to sustainable development (according to relevant quality criteria to be identified) that could be assessed by SUSTEX   |
| Governance/strategy | Mission, vision and values ("mission statement") referring to sustainable development                     | Quality of mission, vision and values in L&T (face-to-face, hybrid, online) referring to sustainable development on institutional and/or faculty and/or programme levels (according to relevant quality criteria to be identified) that could be assessed by SUSTEX  |
|                     | Further strategy and policy documents (including operational levels) referring to sustainable development | Quality of strategy and policy documents in L&T (face-to-face, hybrid, online) referring to sustainable development on different organisational levels such as HEI, faculties, departments (e.g. structure and development plans for L&T; institutional and faculty level policy documents such as Learning Analytics Policy, Evaluation Policy for L&T, Data and Information Ethics Policy; QM system including a L&T model) (according to relevant quality criteria to be identified) that could be assessed by SUSTEX |
|                     | Public information about L&T referring to sustainable development   | Quality of public information about study programmes (e.g. recognition of qualifications, learning objectives, credits, requirements, assessment methods, timelines, dates relevant for the programme, completion rates, pass rates, and dropout rates) referring to sustainable development   |

## Appendix: Higher Education Learning and Teaching for Sustainable Development (HELTSD) learning goals

In Table 3a, 255 (=5x3x17) competences alias learning goals of Higher Education Learning and Teaching for Sustainability Development (HELTSD) are listed. These competences are differentiated according to the UNESCO's 17 Sustainability Development Goals (SDGs) and the sub-groups of cognitive, socio-emotional and behavioural competences related to each SDG and are taken from (UNESCO 2017, pp. 12ff.). These competences/learning goals are referred to in Table 3 ("PIs for Learning Outcomes and Learning Gain and Their Assessment") under the performance type "Student learning gain with respect to Higher Education Learning and Teaching for Sustainable Development (HELTSD) competences".

The inclusion of PIs for HELTSD in this comprehensive PI set of L&T in higher education is due to the simple facts that the PI set of the SQELT project should be comprehensive and that sustainability of all forms of life and non-living matter is one of the crucial issues of our time (cf. e.g. Albareda-Tiana et al. 2018; Bellina et al. 2018; Caeiro et al. 2020; Findler et al. 2019; Rieckmann & Bormann 2020; RNE 2018; Tapia-Fonllem et al. 2017). In this sense, the SQELT PI set adopts the UNESCO's understanding that

'to create a more sustainable world and to engage with issues related to sustainability as described in the Sustainable Development Goals (SDGs), individuals must become sustainability change-makers. They require the knowledge, skills, values and attitudes that empower them to contribute to sustainable development. [Higher] Education is thus crucial for the achievement of sustainable development, and [Higher] Education Learning and Teaching for Sustainable Development [HELTSD] is particularly needed because it empowers learners to take informed decisions and act responsibly for environmental integrity, economic viability and a just society, for present and future generations' (UNESCO 2017, p. 63).

It should be noted that the adoption of the UNESCO's (H)ESD learning goals alias competences as written down in Table 3a does not imply the assumption that the latter are perfect, finalised or completely non-redundant. Instead, it is generally assumed here that the (H)ESD learning competences listed in Table 3a are improvable and that the underlying SDGs as such may contain contradictory issues as well (cf. e.g. Hickel 2019). However, this does not diminish the basic opportunities and benefits of the SDGs and (H)ESD competences for the theme of PIs of higher education L&T, while further critical analysis of the SDG-related competences is beyond the present project's capabilities. Finally, it is certainly worthwhile noting that the general goal of Education for Sustainable Development is based on, imbedded into and justified by the philosophy of human rights, particularly the values of Enlightenment including the conceptions of freedom of expression, learning, research and the arts, and the Universal Declaration of Human Rights (e.g. UNGA 1948; UNGA 2008).

**Table 3a: Higher Education Learning and Teaching for Sustainable Development (HELTSD) learning goals and competences, respectively (adopted from UNESCO 2017, pp. 12ff.)**

|   |                 |  |
|---|-----------------|--|
| SDG1-related competences ('No poverty') | Cognitive       | The student knows <sup>2</sup> about and understands the 'concepts of extreme and relative poverty and is able to critically reflect on their underlying cultural and normative assumptions.' <sup>3</sup>   |
|   |                 | The student knows about and understands the 'local, national and global distribution of extreme poverty and extreme wealth.'   |
|   |                 | The student knows about and understands the 'causes and impacts of poverty such as unequal distribution of resources and power, colonization, conflicts, disasters caused by natural hazards and other climate change-induced impacts, environmental degradation and technological disasters, and the lack of social protection systems and measures.' |
|   |                 | The student knows about and understands 'how extremes of poverty and extremes of wealth affect basic human rights and needs.'  |
|   |                 | The student knows about and understands 'poverty reduction strategies and measures and is able to distinguish between deficit-based and strength-based approaches to addressing poverty.'  |
|   | Socio-emotional | The student 'is able to collaborate <sup>4</sup> with others to empower individuals and communities to affect change in the distribution of power and resources in the community and beyond.'  |

<sup>2</sup> "Knowing" and "understanding" (or "comprehending") denote the two lowest levels of the six cognitive levels of Bloom's taxonomy: Knowledge; Comprehension; Application; Analysis; Synthesis, Evaluation (cf. Anderson et al., 2013).

<sup>3</sup> This and the following citations in Table 3a are taken from (UNESCO 2017, pp. 12ff.).

<sup>4</sup> "Collaborating" can be subsumed among the third level and further levels of the six cognitive levels of Bloom's taxonomy: Knowledge; Comprehension; Application; Analysis; Synthesis, Evaluation (cf. Anderson et al., 2013).

|  |   |   |  |
|--|---|---|--|
|  |   | The student 'is able to raise awareness about extremes of poverty and wealth and encourage dialogue about solutions.'   |  |
|  |   | The student 'is able to show sensitivity to the issues of poverty as well as empathy and solidarity with poor people and those in vulnerable situations.'   |  |
|  |   | The student 'is able to identify their personal experiences and biases with respect to poverty.'  |  |
|  |   | The student 'is able to reflect critically <sup>5</sup> on their own role in maintaining global structures of inequality.'  |  |
|  | Behavioural   | The student 'is able to plan, implement, evaluate and replicate activities <sup>6</sup> that contribute to poverty reduction.'  |  |
|  |   | The student 'is able to publicly demand and support the development and integration of policies that promote social and economic justice, risk reduction strategies and poverty eradication actions.'   |  |
|  |   | The student 'is able to evaluate, participate in and influence decision-making related to management strategies of local, national and international enterprises concerning poverty generation and eradication.'  |  |
|  |   | The student 'is able to include poverty reduction, social justice and anti-corruption considerations in their consumption activities.'  |  |
|  |   | The student 'is able to propose solutions to address systemic problems related to poverty.'   |  |
|  |   |   |  |
| SDG2-related competences ('Zero hunger')   | Cognitive   | The student knows about and understands 'hunger and malnutrition and their main physical and psychological effects on human life, and about specific vulnerable groups.'  |  |
|  |   | The student knows about and understands 'the amount and distribution of hunger and malnutrition locally, nationally and globally, currently as well as historically.'   |  |
|  |   | The student knows about and understands 'the main drivers and root causes for hunger at the individual, local, national and global level.'  |  |
|  |   | The student knows about and understands 'principles of sustainable agriculture and understands the need for legal rights to have land and property as necessary conditions to promote it.'  |  |
|  |   | The student knows about and understands 'the need for sustainable agriculture to combat hunger and malnutrition worldwide and knows about other strategies to combat hunger, malnutrition and poor diets.'  |  |
|  |   | The student 'is able to communicate on the issues and connections between combating hunger and promoting sustainable agriculture and improved nutrition.'   |  |
|  | Socio-emotional   | The student 'is able to collaborate with others to encourage and to empower them to combat hunger and to promote sustainable agriculture and improved nutrition.'   |  |
|  |   | The student 'is able to create a vision for a world without hunger and malnutrition.'   |  |
|  |   | The student 'is able to reflect on their own values and deal with diverging values, attitudes and strategies in relation to combating hunger and malnutrition and promoting sustainable agriculture.'   |  |
|  |   | The student 'is able to feel empathy, responsibility and solidarity for and with people suffering from hunger and malnutrition.'  |  |
|  | Behavioural   | The student 'is able to evaluate and implement actions personally and locally to combat hunger and to promote sustainable agriculture.'   |  |
|  |   | The student 'is able to evaluate, participate in and influence decision-making related to public policies concerning the combat against hunger and malnutrition and the promotion of sustainable agriculture.'  |  |
|  |   | The student 'is able to evaluate, participate in and influence decision-making related to management strategies of local, national and international enterprises concerning the combat against hunger and malnutrition and the promotion of sustainable agriculture.' |  |
|  |   | The student 'is able to take on critically their role as an active global citizen in the challenge of combating hunger.'  |  |
|  |   | The student 'is able to change their production and consumption practices in order to contribute to the combat against hunger and the promotion of sustainable agriculture.'  |  |
|  |   |   |  |
|  | SDG3-related competences ('Good health and well-being') | Cognitive   | The student knows about and understands 'conceptions of health, hygiene and well-being and can critically reflect on them, including an understanding of the importance of gender in health and well-being.'             |
|  |   |   | The student knows about and understands 'facts and figures about the most severe communicable and noncommunicable diseases, and the most vulnerable groups and regions concerning illness, disease and premature death.' |
| The student knows about and understands 'the socio-political-economic dimensions of health and well-being and knows about the effects of advertising and about strategies to promote health and well-being.'   |   |   |  |
| The student knows about and understands 'the importance of mental health' including 'the negative impacts of behaviours like xenophobia, discrimination and bullying on mental health and emotional well-being and how addictions to alcohol, tobacco or other drugs cause harm to health and well-being.' |   |   |  |
| The student knows about and understands 'relevant prevention strategies to foster positive physical and mental health and well-being, including sexual and reproductive health and information as well as early warning and risk reduction.'   |   |   |  |
| Socio-emotional  |   | The student 'is able to interact with people suffering from illnesses and feel empathy for their situation and feelings.'   |  |
|  |   | The student 'is able to communicate about issues of health, including sexual and reproductive health, and well-being, especially to argue in favour of prevention strategies to promote health and well-being.'   |  |
|  |   |   |  |

<sup>5</sup> "Reflecting critically" can be subsumed among the fourth level and further levels of the six cognitive levels of Bloom's taxonomy: Knowledge; Comprehension; Application; Analysis; Synthesis, Evaluation (cf. Anderson et al., 2013).

<sup>6</sup> "Evaluating" and further abilities mentioned here can be subsumed among the sixth level and other levels of the six cognitive levels of Bloom's taxonomy: Knowledge; Comprehension; Application; Analysis; Synthesis, Evaluation (cf. Anderson et al., 2013).

|   |  |  |  |
|---|--|--|--|
|   |  | The student 'is able to encourage others to decide and act in favour of promoting health and well-being for all.'  |  |
|   |  | The student 'is able to create a holistic understanding of a life of health and well-being, and to clarify related values, beliefs and attitudes.'   |  |
|   |  | The student 'is able to develop a personal commitment to promoting health and well-being for themselves, their family and others, including considering volunteer or professional work in health and social care.'                               |  |
|   | Behavioural  | The student 'is able to include health promoting behaviours in their daily routines.'  |  |
|   |  | The student 'is able to plan, implement, evaluate and replicate strategies that promote health, including sexual and reproductive health, and well-being for themselves, their families and others.'   |  |
|   |  | The student 'has the capacity to perceive when others need help and to seek help for themselves and others.'   |  |
|   |  | The student 'is able to publicly demand and support the development of policies promoting health and well-being.'  |  |
|   |  | The student 'is able to propose ways to address possible conflicts between the public interest in offering medicine at affordable prices and private interests within the pharmaceutical industry.'  |  |
|   | SDG4-related competences ('Quality education')   | Cognitive  | The student knows about and understands 'the important role of education and lifelong learning opportunities for all (formal, non-formal and informal learning) as main drivers of sustainable development, for improving people's lives and in achieving the SDGs.'   |
|   |  |  | The student knows about and understands 'education as a public good, a global common good, a fundamental human right and a basis for guaranteeing the realization of other rights.'  |
| The student knows about and understands 'inequality in access to and attainment of education, particularly between girls and boys and in rural areas, and about reasons for a lack of equitable access to quality education and lifelong learning opportunities.' |  |  |  |
| The student knows about and understands 'the important role of culture in achieving sustainability.'  |  |  |  |
| The student knows about and understands 'that education can help create a more sustainable, equitable and peaceful world.'  |  |  |  |
| Socio-emotional   |  | The student 'is able to raise awareness of the importance of quality education for all, a humanistic and holistic approach to education, ESD and related approaches.'  |  |
|   |  | The student 'is able through participatory methods to motivate and empower others to demand and use educational opportunities.'  |  |
|   |  | The student 'is able to recognize the intrinsic value of education and to analyse and identify their own learning needs in their personal development.'  |  |
|   |  | The student 'is able to recognize the importance of their own skills for improving their life, in particular for employment and entrepreneurship.'   |  |
|   |  | The student 'is able to engage personally with ESD.'   |  |
| Behavioural   |  | The student 'is able to contribute to facilitating and implementing quality education for all, ESD and related approaches at different levels.'  |  |
|   |  | The student 'is able to promote gender equality in education.'   |  |
|   |  | The student 'is able to publicly demand and support the development of policies promoting free, equitable and quality education for all, ESD and related approaches as well as aiming at safe, accessible and inclusive educational facilities.' |  |
|   |  | The student 'is able to promote the empowerment of young people.'  |  |
|   |  | The student 'is able to use all opportunities for their own education throughout their life, and to apply the acquired knowledge in everyday situations to promote sustainable development.'   |  |
| SDG5-related competences ('Gender equality')  |  | Cognitive  | The student knows about and understands 'the concept of gender, gender equality and gender discrimination and knows about all forms of gender discrimination, violence and inequality (e.g. harmful practices such as female genital mutilation, honour killings and child marriage, unequal employment opportunities and pay, language construction, traditional gender roles, gendered impact of natural hazards) and understands the current and historical causes of gender inequality.' |
|   |  |  | The student knows about and understands 'the basic rights of women and girls, including their right to freedom from exploitation and violence and their reproductive rights.'  |
|   |  |  | The student knows about and understands 'levels of gender equality within their own country and culture in comparison to global norms (while respecting cultural sensitivity), including the intersectionality of gender with other social categories such as ability, religion and race.'   |
|   | The student knows about and understands 'the opportunities and benefits provided by full gender equality and participation in legislation and governance, including public budget allocation, the labour market and public and private decision-making.' |  |  |
|   | The student knows about and understands 'the role of education, enabling technology and legislation in empowering and ensuring the full participation of all genders.'   |  |  |
|   | Socio-emotional  | The student 'is able to recognize and question traditional perception of gender roles in a critical approach, while respecting cultural sensitivity.'  |  |
|   |  | The student 'is able to identify and speak up against all forms of gender discrimination and debate the benefits of full empowerment of all genders.'  |  |
|   |  | The student 'is able to connect with others who work to end gender discrimination and violence, empower those who may still be disempowered and promote respect and full equality on all levels.'  |  |
|   |  | The student 'is able to reflect on their own gender identity and gender roles.'  |  |

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|  | Behavioural  | The student 'is able to feel empathy and solidarity with those who differ from personal or community gender expectations and roles.'  |  |
|  |  | The student 'is able to take the measure of their surroundings to empower themselves or others who are discriminated against because of their gender.'  |  |
|  |  | The student 'is able to evaluate, participate in and influence decision-making about gender equality and participation.'  |  |
|  |  | The student 'is able to support others in developing empathy across genders and breaking down gender discrimination and violence.'  |  |
|  |  | The student 'is able to observe and identify gender discrimination.'  |  |
|  |  | The student 'is able to plan, implement, support and evaluate strategies for gender equality.'  |  |
| SDG6-related competences ('Clean water and sanitation')  | Cognitive  | The student knows about and understands 'water as a fundamental condition of life itself, the importance of water quality and quantity, and the causes, effects and consequences of water pollution and water scarcity.'                                  |  |
|  |  | The student knows about and understands 'that water is part of many different complex global interrelationships and systems.'   |  |
|  |  | The student knows about and understands 'the global unequal distribution of access to safe drinking water and sanitation facilities.'   |  |
|  |  | The student knows about and understands 'the concept of "virtual water".'   |  |
|  |  | The student knows about and understands 'the concept of Integrated Water Resources Management (IWRM) and other strategies for ensuring the availability and sustainable management of water and sanitation, including flood and drought risk management.' |  |
|  | Socio-emotional  | The student 'is able to participate in activities of improving water and sanitation management in local communities.'   |  |
|  |  | The student 'is able to communicate about water pollution, water access and water saving measures and to create visibility about success stories.'  |  |
|  |  | The student 'is able to feel responsible for their water use.'  |  |
|  |  | The student 'is able to see the value in good sanitation and hygiene standards.'  |  |
|  | Behavioural  | The student 'is able to question socio-economic differences as well as gender disparities in the access to safe drinking water and sanitation facilities.'  |  |
|  |  | The student 'is able to cooperate with local authorities in the improvement of local capacity for self-sufficiency.'  |  |
|  |  | The student 'is able to contribute to water resources management at the local level.'   |  |
|  |  | The student 'is able to reduce their individual water footprint and to save water practicing their daily habits.'   |  |
|  |  | The student 'is able to plan, implement, evaluate and replicate activities that contribute to increasing water quality and safety.'   |  |
|  | SDG7-related competences ('Affordable and clean energy') | Cognitive   | The student knows about and understands 'different energy resources – renewable and non-renewable – and their respective advantages and disadvantages including environmental impacts, health issues, usage, safety and energy security, and their share in the energy mix at the local, national and global level.' |
|  |  |   | The student knows about and understands 'what energy is primarily used for in different regions of the world.'   |
|  |  |   | The student knows about and understands 'the concept of energy efficiency and sufficiency and knows socio-technical strategies and policies to achieve efficiency and sufficiency.'  |
|  |  |   | The student knows about and understands 'how policies can influence the development of energy production, supply, demand and usage.'   |
| The student knows about and understands 'harmful impacts of unsustainable energy production, understands how renewable energy technologies can help to drive sustainable development and understands the need for new and innovative technologies and especially technology transfer in collaborations between countries.' |  |   |  |
| Socio-emotional  |  | The student 'is able to communicate the need for energy efficiency and sufficiency.'  |  |
|  |  | The student 'is able to assess and understand the need for affordable, reliable, sustainable and clean energy of other people/other countries or regions.'  |  |
|  |  | The student 'is able to cooperate and collaborate with others to transfer and adapt energy technologies to different contexts and to share energy best practices of their communities.'   |  |
|  |  | The student 'is able to clarify personal norms and values related to energy production and usage as well as to reflect and evaluate their own energy usage in terms of efficiency and sufficiency.'   |  |
|  |  | The student 'is able to develop a vision of a reliable, sustainable energy production, supply and usage in their country.'  |  |
| Behavioural  |  | The student 'is able to apply and evaluate measures in order to increase energy efficiency and sufficiency in their personal sphere and to increase the share of renewable energy in their local energy mix.'   |  |
|  |  | The student 'is able to apply basic principles to determine the most appropriate renewable energy strategy in a given situation.'   |  |
|  |  | The student 'is able to analyse the impact and long-term effects of big energy projects (e.g. constructing an off-shore wind park) and energy related policies on different stakeholder groups (including nature).'                                       |  |
|  |  | The student 'is able to influence public policies related to energy production, supply and usage.'  |  |



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|   |                 | The student 'is able to compare and assess different business models and their suitability for different energy solutions and to influence energy suppliers to produce safe, reliable and sustainable energy.'   |
| SDG8-related competences ('Decent work and economic growth')  | Cognitive       | The student knows about and understands 'the concepts of sustained, inclusive and sustainable economic growth, full and productive employment, and decent work, including the advancement of gender parity and equality, and knows about alternative economic models and indicators.'  |
|   |                 | The student knows about and understands 'the distribution of formal employment rates per sector, informal employment, and unemployment in different world regions or nations, and which social groups are especially affected by unemployment.'  |
|   |                 | The student knows about and understands 'the relation between employment and economic growth and knows about other moderating factors like a growing labour force or new technologies that substitute jobs.'   |
|   |                 | The student knows about and understands 'how low and decreasing wages for the labour force and very high wages and profits of managers and owners or shareholders are leading to inequalities, poverty, civil unrest, etc.'  |
|   |                 | The student knows about and understands 'how innovation, entrepreneurship and new job creation can contribute to decent work and a sustainability-driven economy and to the decoupling of economic growth from the impacts of natural hazards and environmental degradation.'  |
|   | Socio-emotional | The student 'is able to discuss economic models and future visions of economy and society critically and to communicate them in public spheres.'   |
|   |                 | The student 'is able to collaborate with others to demand fair wages, equal pay for equal work and labour rights from politicians and from their employer.'  |
|   |                 | The student 'is able to understand how one's own consumption affects working conditions of others in the global economy.'  |
|   |                 | The student 'is able to identify their individual rights and clarify their needs and values related to work.'  |
|   |                 | The student 'is able to develop a vision and plans for their own economic life based on an analysis of their competencies and contexts.'   |
|   | Behavioural     | The student 'is able to engage with new visions and models of a sustainable, inclusive economy and decent work.'   |
|   |                 | The student 'is able to facilitate improvements related to unfair wages, unequal pay for equal work and bad working conditions.'   |
|   |                 | The student 'is able to develop and evaluate ideas for sustainability-driven innovation and entrepreneurship.'   |
|   |                 | The student 'is able to plan and implement entrepreneurial projects.'  |
| The student 'is able to develop criteria and make responsible consumption choices as a means to support fair working conditions and efforts to decouple production from the impact of natural hazards and environmental degradation.' |                 |  |
| SDG9-related competences ('Industry, innovation and infrastructure')  | Cognitive       | The student knows about and understands 'the concepts of sustainable infrastructure and industrialization and society's needs for a systemic approach to their development.'   |
|   |                 | The student knows about and understands 'the local, national and global challenges and conflicts in achieving sustainability in infrastructure and industrialization.'   |
|   |                 | The student 'can define the term resilience in the context of infrastructure and spatial planning, understanding key concepts such as modularity and diversity, and apply it to their local community and nationwide.'   |
|   |                 | The student knows about and understands 'the pitfalls of unsustainable industrialization and in contrast knows examples of resilient, inclusive, sustainable industrial development and the need for contingency planning.'  |
|   |                 | The student 'is aware of new opportunities and markets for sustainability innovation, resilient infrastructure and industrial development.'  |
|   | Socio-emotional | The student 'is able to argue for sustainable, resilient and inclusive infrastructure in their local area.'  |
|   |                 | The student 'is able to encourage their communities to shift their infrastructure and industrial development toward more resilient and sustainable forms.'   |
|   |                 | The student 'is able to find collaborators to develop sustainable and contextual industries that respond to our shifting challenges and also to reach new markets.'  |
|   |                 | The student 'is able to recognize and reflect on their own personal demands on the local infrastructure such as their carbon and water footprints and food miles.'   |
|   |                 | The student 'is able to understand that with changing resource availability (e. g. peak oil, peak everything) and other external shocks and stresses (e. g. natural hazards, conflicts) their own perspective and demands on infrastructure may need to shift radically regarding availability of renewable energy for ICT, transport options, sanitation options, etc.' |
|   | Behavioural     | The student 'is able to identify opportunities in their own culture and nation for greener and more resilient approaches to infrastructure, understanding their overall benefits for societies, especially with regard to disaster risk reduction.'  |
|   |                 | The student 'is able to evaluate various forms of industrialization and compare their resilience.'   |
|   |                 | The student 'is able to innovate and develop sustainable enterprises to respond to their countries' industrial needs.'   |
|   |                 | The student 'is able to access financial services such as loans or microfinance to support their own enterprises.'   |

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|  |                 | The student 'is able to work with decision-makers to improve the uptake of sustainable infrastructure (including internet access) .'   |
| SDG10-related competences ('Reduced inequalities')   | Cognitive       | The student knows about and understands 'different dimensions of inequality, their interrelations and applicable statistics.'  |
|  |                 | The student knows about and understands 'indicators that measure and describe inequalities and understands their relevance for decision-making.'   |
|  |                 | The student knows about and understands 'that inequality is a major driver for societal problems and individual dissatisfaction.'  |
|  |                 | The student knows about and understands 'local, national and global processes that both promote and hinder equality (fiscal, wage, and social protection policies, corporate activities, etc. ) .'   |
|  |                 | The student knows about and understands 'ethical principles concerning equality and is aware of psychological processes that foster discriminative behaviour and decision making.'   |
|  | Socio-emotional | The student 'is able to raise awareness about inequalities.'   |
|  |                 | The student 'is able to feel empathy for and to show solidarity with people who are discriminated against.'  |
|  |                 | The student 'is able to negotiate the rights of different groups based on shared values and ethical principles.'   |
|  |                 | The student 'becomes aware of inequalities in their surroundings as well as in the wider world and is able to recognize the problematic consequences.'   |
|  |                 | The student 'is able to maintain a vision of a just and equal world.'  |
|  | Behavioural     | The student 'is able to evaluate inequalities in their local environment in terms of quality (different dimensions, qualitative impact on individuals) and quantity (indicators, quantitative impact on individuals) .'  |
|  |                 | The student 'is able to identify or develop an objective indicator to compare different groups, nations, etc. with respect to inequalities.'   |
|  |                 | The student 'is able to identify and analyse different types of causes and reasons for inequalities.'  |
|  |                 | The student 'is able to plan, implement and evaluate strategies to reduce inequalities.'   |
| The student 'is able to engage in the development of public policies and corporate activities that reduce inequalities.' |                 |  |
| SDG11-related competences ('Sustainable cities and communities')   | Cognitive       | The student knows about and understands 'basic physical, social and psychological human needs and is able to identify how these needs are currently addressed in their own physical urban, peri-urban and rural settlements.'  |
|  |                 | The student knows about and understands 'to evaluate and compare the sustainability of their and other settlements' systems in meeting their needs particularly in the areas of food, energy, transport, water, safety, waste treatment, inclusion and accessibility, education, integration of green spaces and disaster risk reduction.' |
|  |                 | The student knows about and understands 'the historical reasons for settlement patterns and while respecting cultural heritage, understands the need to find compromises to develop improved sustainable systems.'   |
|  |                 | The student knows about and understands 'the basic principles of sustainable planning and building, and can identify opportunities for making their own area more sustainable and inclusive.'  |
|  |                 | The student knows about and understands 'the role of local decision-makers and participatory governance and the importance of representing a sustainable voice in planning and policy for their area.'   |
|  | Socio-emotional | The student 'is able to use their voice, to identify and use entry points for the public in the local planning systems, to call for the investment in sustainable infrastructure, buildings and parks in their area and to debate the merits of long-term planning.'   |
|  |                 | The student 'is able to connect with and help community groups locally and online in developing a sustainable future vision of their community.'   |
|  |                 | The student 'is able to reflect on their region in the development of their own identity, understanding the roles that the natural, social and technical environments have had in building their identity and culture.'  |
|  |                 | The student 'is able to contextualize their needs within the needs of the greater surrounding ecosystems, both locally and globally, for more sustainable human settlements.'  |
|  |                 | The student 'is able to feel responsible for the environmental and social impacts of their own individual lifestyle.'  |
|  | Behavioural     | The student 'is able to plan, implement and evaluate community-based sustainability projects.'   |
|  |                 | The student 'is able to participate in and influence decision processes about their community.'  |
|  |                 | The student 'is able to speak against/for and to organize their voice against/for decisions made for their community.'   |
|  |                 | The student 'is able to co-create an inclusive, safe, resilient and sustainable community.'  |
|  |                 | The student 'is able to promote low carbon approaches at the local level.'   |
| SDG12-related competences ('Responsible consumption and production')   | Cognitive       | The student knows about and understands 'how individual lifestyle choices influence social, economic and environmental development.'   |
|  |                 | The student knows about and understands 'production and consumption patterns and value chains and the interrelatedness of production and consumption (supply and demand, toxics, CO <sub>2</sub> emissions, waste generation, health, working conditions, poverty, etc.).'   |
|  |                 | The student knows about and understands 'roles, rights and duties of different actors in production and consumption (media and advertising, enterprises, municipalities, legislation, consumers, etc. ) .'   |
|  |                 | The student knows about and understands 'strategies and practices of sustainable production and consumption.'  |

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|  | Socio-emotional   | The student knows about and understands 'dilemmas/trade-offs related to and system changes necessary for achieving sustainable consumption and production.'  |
|  |   | The student 'is able to communicate the need for sustainable practices in production and consumption.'   |
|  |   | The student 'is able to encourage others to engage in sustainable practices in consumption and production.'  |
|  |   | The student 'is able to differentiate between needs and wants and to reflect on their own individual consumer behaviour in light of the needs of the natural world, other people, cultures and countries, and future generations.'                               |
|  |   | The student 'is able to envision sustainable lifestyles.'  |
|  | Behavioural   | The student 'is able to feel responsible for the environmental and social impacts of their own individual behaviour as a producer or consumer.'  |
|  |   | The student 'is able to plan, implement and evaluate consumption-related activities using existing sustainability criteria.'   |
|  |   | The student 'is able to evaluate, participate in and influence decision-making processes about acquisitions in the public sector.'   |
|  |   | The student 'is able to promote sustainable production patterns.'  |
|  |   | The student 'is able to take on critically on their role as an active stakeholder in the market.'  |
| SDG13-related competences ('Climate action')   | Cognitive   | The student 'is able to challenge cultural and societal orientations in consumption and production.'   |
|  |   | The student knows about and understands 'the greenhouse effect as a natural phenomenon caused by an insulating layer of greenhouse gases.'   |
|  |   | The student knows about and understands 'the current climate change as an anthropogenic phenomenon resulting from the increased greenhouse gas emissions.'   |
|  |   | The student knows about and understands 'which human activities – on a global, national, local and individual level – contribute most to climate change.'  |
|  |   | The student knows about and understands 'the main ecological, social, cultural and economic consequences of climate change locally, nationally and globally and understands how these can themselves become catalysing, reinforcing factors for climate change.' |
|  | Socio-emotional   | The student knows about and understands 'prevention, mitigation and adaptation strategies at different levels (global to individual) and for different contexts and their connections with disaster response and disaster risk reduction.'                       |
|  |   | The student 'is able to explain ecosystem dynamics and the environmental, social, economic and ethical impact of climate change.'  |
|  |   | The student 'is able to encourage others to protect the climate.'  |
|  |   | The student 'is able to collaborate with others and to develop commonly agreed-upon strategies to deal with climate change.'   |
|  |   | The student 'is able to understand their personal impact on the world's climate, from a local to a global perspective.'  |
| Behavioural                                    | The student 'is able to recognize that the protection of the global climate is an essential task for everyone and that we need to completely re-evaluate our worldview and everyday behaviours in light of this.' |  |
|  | The student 'is able to evaluate whether their private and job activities are climate friendly and – where not – to revise them.'   |  |
|  | The student 'is able to act in favour of people threatened by climate change.'  |  |
|  | The student 'is able to anticipate, estimate and assess the impact of personal, local and national decisions or activities on other people and world regions.'  |  |
|  | The student 'is able to promote climate-protecting public policies.'  |  |
| SDG14-related competences ('Life below water') | Cognitive   | The student 'is able to support climate-friendly economic activities.'   |
|  |   | The student knows about and understands 'basic marine ecology, ecosystems, predator-prey relationships, etc.'  |
|  |   | The student knows about and understands 'the connection of many people to the sea and the life it holds, including the sea's role as a provider of food, jobs and exciting opportunities.'   |
|  |   | The student knows about and understands 'the basic premise of climate change and the role of the oceans in moderating our climate.'  |
|  |   | The student knows about and understands 'threats to ocean systems such as pollution and overfishing and recognizes and can explain the relative fragility of many ocean ecosystems including coral reefs and hypoxic dead zones.'                                |
|  | Socio-emotional   | The student knows about and understands 'about opportunities for the sustainable use of living marine resources.'  |
|  |   | The student 'is able to argue for sustainable fishing practices.'  |
|  |   | The student 'is able to show people the impact humanity is having on the oceans (biomass loss, acidification, pollution, etc.) and the value of clean healthy oceans.'   |
|  |   | The student 'is able to influence groups that engage in unsustainable production and consumption of ocean products.'   |
|  |   | The student 'is able to reflect on their own dietary needs and question whether their dietary habits make sustainable use of limited resources of seafood.'  |
| Behavioural                                    | The student 'is able to empathize with people whose livelihoods are affected by changing fishing practices.'  |  |
|  |   | The student 'is able to research their country's dependence on the sea.'   |



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|  |  | The student 'is able to debate sustainable methods such as strict fishing quotas and moratoriums on species in danger of extinction.'   |  |
|  |  | The student 'is able to identify, access and buy sustainably harvested marine life, e.g. ecolabel certified products.'  |  |
|  |  | The student 'is able to contact their representatives to discuss overfishing as a threat to local livelihoods.'   |  |
|  |  | The student 'is able to campaign for expanding no-fish zones and marine reserves and for their protection on a scientific basis.'   |  |
| SDG15-related competences ('Life on land') | Cognitive  | The student knows about and understands 'basic ecology with reference to local and global ecosystems, identifying local species and understanding the measure of biodiversity.'   |  |
|  |  | The student knows about and understands 'the manifold threats posed to biodiversity, including habitat loss, deforestation, fragmentation, overexploitation and invasive species, and can relate these threats to their local biodiversity.'  |  |
|  |  | The student knows about and understands 'to classify the ecosystem services of the local ecosystems including supporting, provisioning, regulating and cultural services and ecosystems services for disaster risk reduction.'  |  |
|  |  | The student knows about and understands 'the slow regeneration of soil and the multiple threats that are destroying and removing it much faster than it can replenish itself, such as poor farming or forestry practice.'   |  |
|  |  | The student knows about and understands 'that realistic conservation strategies work outside pure nature reserves to also improve legislation, restore degraded habitats and soils, connect wildlife corridors, sustainable agriculture and forestry, and redress humanity's relationship to wildlife.' |  |
|  | Socio-emotional  | The student 'is able to argue against destructive environmental practices that cause biodiversity loss.'  |  |
|  |  | The student 'is able to argue for the conservation of biodiversity on multiple grounds including ecosystems services and intrinsic value.'  |  |
|  |  | The student 'is able to connect with their local natural areas and feel empathy with nonhuman life on Earth.'   |  |
|  |  | The student 'is able to question the dualism of human/nature and realizes that we are a part of nature and not apart from nature.'  |  |
|  |  | The student 'is able to create a vision of a life in harmony with nature.'  |  |
|  | Behavioural  | The student 'is able to connect with local groups working toward biodiversity conservation in their area.'  |  |
|  |  | The student 'is able to effectively use their voice effectively in decision-making processes to help urban and rural areas become more permeable to wildlife through the establishment of wildlife corridors, agro-environmental schemes, restoration ecology and more.'                                |  |
|  |  | The student 'is able to work with policy-makers to improve legislation for biodiversity and nature conservation, and its implementation.'   |  |
|  |  | The student 'is able to highlight the importance of soil as our growing material for all food and the importance of remediating or stopping the erosion of our soils.'  |  |
|  |  | The student 'is able to campaign for international awareness of species exploitation and work for the implementation and development of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) regulations.'   |  |
|  | SDG16-related competences ('Peace, justice and strong institutions') | Cognitive   | The student knows about and understands 'concepts of justice, inclusion and peace and their relationship to law.'  |
|  |  |   | The student knows about and understands 'their local and national legislative and governance systems, how they represent them and that they can be abused through corruption.'                 |
|  |  |   | The student knows about and understands how 'to compare their system of justice with those of other countries.'  |
|  |  |   | The student knows about and understands 'the importance of individuals and groups in upholding justice, inclusion and peace and supporting strong institutions in their country and globally.' |
|  |  |   | The student knows about and understands 'the importance of the international human rights framework.'  |
| Socio-emotional                            |  | The student 'is able to connect with others who can help them in facilitating peace, justice, inclusion and strong institutions in their country.'  |  |
|  |  | The student 'is able to debate local and global issues of peace, justice, inclusion and strong institutions.'   |  |
|  |  | The student 'is able to show empathy with and solidarity for those suffering from injustice in their own country as well as in other countries.'  |  |
|  |  | The student 'is able to reflect on their role in issues of peace, justice, inclusion and strong institutions.'  |  |
|  |  | The student 'is able to reflect on their own personal belonging to diverse groups (gender, social, economic, political, ethnical, national, ability, sexual orientation etc.) their access to justice and their shared sense of humanity.'  |  |
| Behavioural                                |  | The student 'is able to critically assess issues of peace, justice, inclusion and strong institutions in their region, nationally and globally.'  |  |
|  |  | The student 'is able to publicly demand and support the development of policies promoting peace, justice, inclusion and strong institutions.'   |  |
|  |  | The student 'is able to collaborate with groups that are currently experiencing injustice and/or conflicts.'  |  |
|  |  | The student 'is able to become an agent of change in local decision-making, speaking up against injustice.'   |  |
|  |  | The student 'is able to contribute to conflict resolution at the local and national level.'   |  |

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| SDG17-related competences ('Partnership for the goals') | Cognitive       | The student knows about and understands 'global issues, including issues of financing for development, taxation, debt and trade policies, and the interconnectedness and interdependency of different countries and populations.'           |
|   |                 | The student knows about and understands the 'importance of global multi-stakeholder partnerships and the shared accountability for sustainable development and knows examples of networks, institutions, campaigns of global partnerships.' |
|   |                 | The student knows about and understands the 'concepts of global governance and global citizenship.'   |
|   |                 | The student knows about and understands the 'importance of cooperation on and access to science, technology and innovation, and knowledge sharing.'   |
|   |                 | The student knows about and understands 'concepts for measuring progress on sustainable development.'   |
|   | Socio-emotional | The student 'is able to raise awareness about the importance of global partnerships for sustainable development.'   |
|   |                 | The student 'is able to work with others to promote global partnerships for sustainable development and demand governments' accountability for the SDGs.'   |
|   |                 | The student 'is able to take ownership of the SDGs.'  |
|   |                 | The student 'is able to create a vision for a sustainable global society.'  |
|   | Behavioural     | The student 'is able to experience a sense of belonging to a common humanity, sharing values and responsibilities, based on human rights.'  |
|   |                 | The student 'is able to become a change agent to realize the SDGs and to take on their role as an active, critical and global and sustainability citizen.'  |
|   |                 | The student 'is able to contribute to facilitating and implementing local, national and global partnerships for sustainable development.'   |
|   |                 | The student 'is able to publicly demand and support the development of policies promoting global partnerships for sustainable development.'   |
|   |                 | The student 'is able to support development cooperation activities.'  |
|   |                 | The student 'is able to influence companies to become part of global partnerships for sustainable development.'   |

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