Programación semanal

En la programación semanal te presentamos un **reparto del trabajo de la asignatura** a lo largo de las semanas del cuatrimestre.

SEMANAS	TEMAS	ACTIVIDADES	LIVE CLASSES
Semana 1	.	Mandatory attendance to two virtual classes; to choose through the four month period (0,1 points each).	Presentation of the subject
Semana 2	**Unit 1. Didactics and Teaching Natural Sciences** 1.1. Introduction and Objectives 1.2. Definition of the Term Didactics 1.3. Teaching Natural Sciences: Learning to Teach Experimental Science 1.4. Science in the 21st Century 1.5. Scientific Thinking as the Basis for Science and the Characteristics of Scientific Thinking 8 1.6. The Evolution of Scientific Thinking 1.7. School Science vs Experimental Science 1.8. Bibliographic References	Test unit 1(0,07 puntos)	Class unit 1
Semana 3	Unit 2. The Role of the Teacher in Teaching Natural Sciences 2.1. Introduction and Objectives 2.2. The Role of the Teacher and the Development of Teaching Competences 2.3. Training Teachers in Science 2.4. Characteristics of Primary School Pupils in Relation with the Natural Sciences 2.5. Bibliographic References	Forum activity: Characteristics of the Natural Sciences and Teaching Natural Sciences(0,8 puntos) Test unit 2(0,07 puntos)	Class unit 2 and presentation of the Forum: Characteristics of the Natural Sciences and Teaching Natural Sciences

Semana 4	Unit 3. Didactic Models in Teaching Natural Sciences 3.1. Introduction and Objectives 3.2. Transmission-Reception Model. Expository Model 3.3. Learning by Discovery Model 3.4. Constructivist Model 3.5. Gagné's Instructional Design Model 3.6. Flipped classroom 3.7. Bibliographic References	Test unit 3(0,07 puntos)	Class unit 3
Semana 5	**Unit 4. Teaching methods in Natural Science Education** 4.1. Introduction and Objectives 4.2. Active Methodologies 4.3. Project-Based Learning 4.4. Problem-based learning 4.5. Service Learning 4.6. Cooperative vs Collaborative Learning 4.7. Gamification 4.8. Bibliographic References	Test unit 4(0,07 puntos)	Class unit 4
Semana 6	Unit 5. Educational Strategies and Tools for Teaching Natural Sciences 5.1. Introduction and Objectives 5.2. Main Strategies for Teaching Natural Sciences 5.3. Methodological Techniques: Brainstorming, Concept Maps, Gowin's V Diagram, Drawings, Semi-Guided Discussions and Debates, Questionnaires, Problems and Dramatisations 5.4. Bibliographic References	Activity. Preparing and designing an excursion(1 puntos) Test unit 5(0,07 puntos)	Class unit 5 and presentation of the activity: Preparing and designing an excursion

Semana 7	Unit 6. The constructivist basis of learning. Preconceptions 6.1. Introduction and Objectives 6.2 Preconceptions. Naive Ideas Vs Incorrect Preconceptions. Why Is It Important to Know our Students' Preconceptions? 6.3. Typical Preconceptions in the Study of Natural Sciences 6.4. Tools for Identifying Preconceptions 6.5. Conceptual Change in Teaching Science and Consolidation of a New Idea (from an Incorrect to a Correct Idea) 6.6. Metacognition 6.7. Bibliographic References	Activity: Elaboration of specific objectives and behavioural indicators(1,5 puntos) Test unit 6(0,07 puntos)	Class unit 6 and presentation of the activity: elaboration of specific objetives and behavioural indicators
Semana 8	Unit 7. An introduction to Experimental Work in Schools 7.1. Introduction and Objectives 7.2. School Science: the Reality 7.3. Experiments: the Scientific Method 7.4. Obtaining Information: Observation 7.5. Experiments: Scientific Strategies 7.6. Communicating Results 7.7. Bibliographic References	Test unit 7(0,07 puntos)	Class unit 7

Semana 9	Unit 8. Teaching unit I. Focus on learning the Natural Sciences 8.1. Introduction and Objectives 8.2. Basic elements that form teaching units for the Natural Sciences 8.3. Objectives and Natural Sciences content in legislation 8.4. Objectives in the Natural Sciences Bloom's taxonomy 8.5. Relation between objectives and competences listed in the legislation 8.6. Design of Natural Sciences content 8.7. Organisation and sequencing 8.8. Bibliographic references Unit 9. Teaching unit II. Teaching activities. Classification, selection and types of activities 9.1. Introduction and Objectives 9.2. Classroom organisation and management	Test unit 8(0,07 puntos)	Class unit 8 and unit 9
Semana 10	Unit 9. Teaching unit II. Teaching activities. Classification, selection and types of activities (continuation) 9.3. Science-oriented activities 9.4. Bibliographic references Unit 10. Teaching unit III. Natural Science resources 10.1. Introduction and Objectives 10.2. What are teaching resources? 10.3. Selection criteria for resources 10.4. Classifying the resources 10.5. Bibliographic references	Activity. Designing an experimental activity(1,5 puntos) Test unit 10(0,07 puntos) Test unit 9(0,07 puntos)	Class unit 19 and unit 10 Presentation of the activity: Designing an experimental activity

Semana 11	**Unit 11. Teaching unit IV. Assessment** 11.1. Introduction and Objectives 11.2. Assessment: Concept, features, functions and types 11.3. Competence assessment 11.4. Assessment criteria for learning quality and standards 11.5. Bibliographic references	Test unit 11(0,07 puntos)	Class unit 11
Semana 12	**Unit 12. Teaching unit V. The use of Information and Communications Technology (ICT) in education** 12.1. Introduction and Objectives 12.2. Information and Communications Technologies (ICT) and Learning and Knowledge Technologies (LKT) 12.3. WebQuest 12.4. Treasure hunt 12.5. Wikis 12.6. Education blogs, or edublogs 12.7. Other ICT tools 12.8. Bibliographic references	Test unit 12(0,07 puntos)	Class unit 12
Semana 13	**Unit 13. Teaching unit VI. The use of Information and Communications Technology (ICT) in education** 13.1. Introduction and objectives 13.2. Simulators and/or virtual laboratories 13.3. Digital comics 13.4. Escape rooms 13.5. Augmented reality (AR) 13.6. Virtual Reality (VR) 13.7. Educational videos. Video impacts and video lessons 13.8. Bibliographic references	Test unit 13(0,07 puntos)	Class unit 13
Semana 14	**Unit 14. Natural science and environmental projects** 14.1. Introduction and objectives 14.2. The Science, Technology, Engineering, Art and Mathematics approach (STEM/STEAM) 14.3. The Science, Technology, Society and the Environment (STSE) approach 14.4. Application of the service-learning (SL) approach 14.5. Natural Science related projects in Primary Education 14.6. Bibliographic references	Test unit 14(0,07 puntos)	Class unit 14 And revision session for all queries.
Semana 15	**Revision week**		Revision week – No classes (only forums for queries)
Semana 16	**Exam week**		

Esta Programación semanal **puede ser modificada** si el profesor lo considera oportuno para el enriquecimiento de la asignatura.