AUSTRALIAN CURRICULUM: GERMAN CLIL UNIT PLANNER

SEQUENCE: F-10
YEAR LEVEL/BAND: 9-10
UNIT: JUNIOR UNIVERSITÄT
LECTURE: ELEKTROMOTOR

This Unit Planner developed by, and kindly shared by former AFMLTA President, Kylie Farmer, has been adopted by the Goethe-Institut in Australia.

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Please note
These resources are designed to be implemented optimally with a focus on the content knowledge as well as language. CLIL is flexible; however, to enable the learning of new content and/or skills through the Target Language some code switching between the students' first language and the target language might be required. Assessment may be in the form of observation, conversation or a product.

Focus Questions: How does an electric motor work? How do magnetic fields and electrical currents work? How has the invention of electricity affected different cultures?
Concepts: magnetic fields, electric currents

Communication

Communicating- Socialising
(ACLGEC172) shared activities- persuading, arguing, planning, negotiating
Communicating- Informing
(ACLGEC175) Convey ideas, information and views- Presenting, representing, reporting
Understanding- Systems of Language
(ACLGEU182) Features of spoken and written language- Pronunciation , stress, contractions
(ACLGEU183) vocab and grammatical structures- future, imperative, relative pronouns

Cognition

Communicating- Reflecting
(ACLGEC180) make choices- assumptions, questions, modifying behaviour, responsibility
Understanding- Systems of Language
(ACLGEU184) Describe the interrelationship between Text types, structuring, language choice

Culture

Communicating- Reflecting
(ACLGEC181) Own identity, exploring, explaining, cultural mediator
Communicating- Translating
(ACLGEC178) Interpret, translate, difficulties

Content

Learning Areas

- **English:** What are the language features of an instruction manual? (ACELA1553)
- **Science:** How do magnetic fields and electrical current work? (ACSSU177)
- **History:** What is the history of the electric motor? (ACHHS166)
- **Technologies:** What household appliances use electric generators? Which ones are loud and which are quiet? Why do you think this is? (ACTDEK043)

General Capabilities

- **Critical and Creative Thinking:** How could you use the principles of magnets to create your own invention?
- **Personal and Social Capability:** How do you feel when travelling in an elevator?
- **Ethical Understanding:** In what way do elevators enable morel members of the community to be transported between levels of a building?
- **Intercultural Understanding:** How has the invention of electricity affected different cultures?

Cross-Curriculum Priorities

- **Sustainability** (OI.3/8) How is an electric generator used to power wind turbines?

Experiments from the Goethe Institut Modul Klimawandel or Luft could be utilised: (ACSSU094) https://www.goethe.de/ins/sk/de/spr/unt/kum/kin/exp.html Use the Goethe Materials on the CLIL section of the website to find out more about renewable energies e.g. entering the Schools for Sustainability competition, Thema Energie: https://www.goethe.de/ins/au/en/spr/unt/kum/cli.html

Aspects of the 9-10 Band Achievement Standard being addressed through this Lecture: Suggested aspects of the Achievement Standard for the proposed Assessment Tasks are noted numerically on the following page next to each task. A full listing of all aspects of the Achievement Standard is to be found on the final page, noting that the numbering system is not from ACARA, but rather developed for the purpose of presenting this series of Unit Planners.

Implementation

Student Tasks

Facilitating Communication- of, for, through learning
- Understand the structure and operation of a simple electric motor.
- Answer questions about the structure and functionality of an electric motor.
- Write a description of the process.

Analysing Key Content
Understand the applied content of a technical video.
- Know where electric motors are used.
- Know what drives electric motors.
- Understand what electric motors are made of and how they work.

Opportunities for Cognition
- Describe the functioning of the electric motor using graphics.
- Build an electric motor by following instructions.
- After viewing a video, write a construction manual for an electric motor.
- Understand the text type of an instruction manual.
- Understand systems of language e.g. grammatical aspects: word order, case system.
- Reflect on their learning.

Connecting with Culture
Understand elements of culture relating to the lecture.
- How has the invention of electricity affected different cultures?

Language Assessment Tasks

Formative: Zuordnen/Schreiben A1/A2: AB 4.1 Was bewegt den Aufzug? A2/B1: AB 4.1 Was bewegt den Aufzug?	6, 7 1, 2, 5, 6, 7
Formative: Lesen/ Zuordnen/Schreiben A1/A2: AB 4.2 Aufbau und Funktionsweise A2/B1: AB 4.2 Wie funktioniert ein Elektromotor?	6, 7 4, 6, 7, 11, 12
Formative: Lesen/ Bauen/ Zuordnen A1/A2: AB 4.3 Anleitung A2/B1: AB 4.3 Anleitung	1, 2, 6, 7 4, 6, 7, 10, 11, 12
Summative: Schreiben/Sprechen Mein DemoVideo:Write and present your own demonstration video showing the audience how to make or build something using magnets. Watch other people's videos and see if you can follow the instructions.	1, 2, 4, 5, 6, 7, 9
Inquiry Based: Students select an area of interest around the concept of *Elektromotor* (see Content Focus above for further ideas) and present their findings to the class, year level, school community or wider audience. Hands-on Tasks: KinderUni: Forscherkoffer Experiment-Elektrogenerator and make comparisons with a bike light generator. (ACSSU077) Compare your results if you move the magnet, use two magnets, change the size of the loops in the wire and try to create a switch to turn it on and off.	1, 3, 4, 5, 7, 9, 10, 12, 15, 16, 17, 18

Materials and Resources

Materials:
- Schnur
- Plastikrohr
- Büroklammern
- Klebeband
- AA-Batterie
- Magnet

Resources:
- Students logged in to the Junioruni website to access the exercises or print a copy of the exercises to complete before/during and after watching the video as a class.
- Access to digital or hardcopy dictionaries is ideal for some activities

Additional Teacher Resources:

Handbook, attachments and video script are available for pdf download from the teacher's version of the website.

Materials for download:

Goethe Institut Modul Klimawandel oder Luft:
https://www.goethe.de/ins/sk/de/spr/unt/kum/kin/exp.html

Goethe Institut: Thema Energie:
https://www.goethe.de/ins/au/en/spr/unt/kum/cli.html

Lecture: ***Elektromotor*** ***Observational Assessment***	**Achievement Standard**	**How I see myself:**			**How my teacher sees me:**		
		I know this in German.	I know this in English.	I still need to work on this.	You know this in German.	You know this in English.	You still need to work on this.
I can … • engage and sustain interactions with peers in class, group and paired activities	**1, 2, 5**						
• understand what is being said in German on the video.	**6, 7, 8, 11**						
• understand the structure and operation of a simple electric motor.	**6, 7**						
• answer questions about the structure and functionality of an electric motor.	**1, 2, 5**						
• write a description of the process.	**6, 7, 10**						
• describe the functioning of the electric motor using graphics.	**6, 7, 10**						
• build an electric motor by following instructions.	**1, 2, 6, 7**						
• view a video then write a construction manual for an electric motor.	**4, 6, 7, 10, 12**						
• understand the text type of an instruction manual.	**16, 17**						
• understand systems of language e.g. grammatical aspects: word order, case system.	**4, 11, 15**						
• reflect on my learning.	**13, 18**						
• understand elements of culture relating to the lecture.	**13, 14, 17, 18**						
• understand the applied content of a technical video.	**Learning Area**						

Overall Assessment

Well Above Standard **A**	**Above Standard** **B**	**At Standard** **C**	**Below Standard** **D**	**Well Below Standard** **E**
The student can complete all of the challenges above in German with minimal English to help explain content, displaying excellent cognitive, communicative and creative skills.	The student can complete all of the challenges above in German with some English to help explain content, displaying above average cognitive, communicative and creative skills.	The student can complete most of the challenges above in English with some German words and phrases, displaying sound cognitive, communicative and creative skills.	The student can complete some of the challenges above in English with some German words and phrases, displaying sound cognitive, communicative and creative skills.	The student can complete little or none of the challenges above in English, displaying limited cognitive, communicative and creative skills.

Australian Curriculum: German 9-10 Band Achievement Standard (F-10 Sequence)

1. Students use written and spoken German to initiate and sustain interactions with teachers, peers and others in a range of settings and for a range of purposes.
2. Students use language spontaneously in the classroom environment to seek clarification and advice, assist others, initiate conversations and discussions, debate a course of action, share learning strategies and comment on the contribution of others.
3. Students describe plans and aspirations using future tense.
4. Students state facts and relate experiences, using past tense forms and regular and irregular verbs.
5. When speaking, students use appropriate pronunciation, intonation and stress in a range of sentence types, including variations such as contractions.
6. Students locate, synthesise and evaluate information on local and global issues from a range of perspectives and sources.
7. Students present ideas, information and views in a range of texts selected to suit audience, purpose and context.
8. Students analyse the main ideas and themes in imaginative texts and use evidence to support their views.
9. Students plan, draft and present imaginative texts using literary devices (imagery, similes, onomatopoeia) to engage a range of audiences.
10. When creating informative, persuasive and imaginative texts, students use a variety of conjunctions, relative clauses and other cohesive devices to build cohesion,
11. Students specify and describe people, places and objects by applying knowledge of the case system to articles, common demonstratives and possessives followed by adjectives.
12. Students interpret and/or translate excerpts from German texts, identifying and explaining culture-specific aspects, and create texts that reflect and explain aspects of culture and language for different German-speaking and Australian audiences.
13. Students identify and challenge their own assumptions and take responsibility for modifying language and behaviours in relation to different cultural perspectives.
14. Students identify ways that language influences people's actions, values and beliefs, and appreciate the scale and importance of linguistic diversity.
15. Students explain the roles of different German cases (nominative, accusative, dative and genitive) and tenses, and variations in spoken and written German in relation to pronunciation, spelling and punctuation.
16. Students explain the relationship between text type, audience and purpose.
17. Students identify the role culture plays in the creation and interpretation of texts, and explain how language and text features (layout, structure and formal/informal register) are used differently in a range of texts.
18. Students explain ways in which language and culture are interrelated and influence each other.