



AUSTRALIAN CURRICULUM: GERMAN CLIL UNIT PLANNER

SEQUENCE: F-10

YEAR LEVEL/BAND: 9-10

UNIT: JUNIOR UNIVERSITÄT

LECTURE: LOTUSEFFEKT

This Unit Planner developed by, and kindly shared by former [AFMLTA](#) President, Kylie Farmer, has been adopted by the Goethe-Institut Australien.

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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 the lotus effect work? What are the possibilities for applying the lotus effect to everyday life?

Concepts: lotus effect, self-cleaning properties (ultra/super hydrophobicity)

Communication	Content
<p>Communicating - Socialising (ACLGEC171) interactions- formal, informal, past, future, opinions, advice</p> <p>Communicating - Informing (ACLGEC175) convey ideas, information and views - presenting, representing, reporting</p> <p>Understanding - Systems of Language (ACLGEU182) features of spoken and written language - pronunciation , stress, contractions</p> <hr/> <p style="text-align: center;">Cognition</p> <hr/> <p>Understanding - Systems of Language (ACLGEU184) describe the interrelationship between text types, structuring, language choice</p> <p>Understanding - Language Variation and Change (ACLGEU185) how and why language used differently - dialects, register, changes in context</p> <hr/> <p style="text-align: center;">Culture</p> <hr/> <p>Communicating - Informing (ACLGEC174) context and culture affect information - perspectives, researching, synthesising, evaluating, representing</p>	<p>Learning Areas</p> <ul style="list-style-type: none"> ● Mathematics: In what way are mathematical models used to explain different lotus leaf types? (ACMNA208) ● Science: How does ultra/super hydrophobicity work in nature? (ACSSU175) https://www.teachengineering.org/lessons/view/duk_surfacetensionunit_lesson4 ● History: Who discovered the lotus effect and how? What influence does this discovery have on Science today? (ACHHS166) ● Geography: Where and under what conditions do lotus plants grow the best? (ACHGK060) ● Civics and Citizenship: How could you use the principle of the lotus effect to help someone in your neighbourhood like in the film? (ACHCS089) ● Technologies: How has the lotus effect influenced the design of new types of paint? (ACTDEK041) <p>General Capabilities</p> <ul style="list-style-type: none"> ● ICT: How does using the text type of a PowerPoint presentation to explain specialist information affect your presentation? ● Critical and Creative Thinking: How could the lotus effect be used to influence new inventions? <p>Cross-Curriculum Priorities</p> <ul style="list-style-type: none"> ● Asia and Australia's Engagement with Asia (OI.1) In what way is the lotus plant considered sacred in Asian cultures? ● Sustainability (OI.7) How can the principle of the lotus effect help to create a more sustainable future?

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.

	Student Tasks	Language Assessment Tasks	Materials and Resources	
Implementation	<p>Facilitating Communication- of, for, through learning</p> <ul style="list-style-type: none"> Understand a film and a text about the discovery and the working of the lotus effect. Perform experiments according to instructions and document the observations. Correctly assign picture headings. Write and present a PowerPoint Presentation about the content of the film and text. <p>Analysing Key Content Understand the applied content of a technical video.</p> <ul style="list-style-type: none"> Understand that some plants e.g. the lotus plant have self-cleaning abilities. Identify and explain the causes of the self-cleaning abilities. <p>Opportunities for Cognition</p> <ul style="list-style-type: none"> Recognise and describe the possibilities of using the lotus effect in everyday life. Write and present a specialist lecture. Understand the text type of a specialist lecture using a PowerPoint presentation. Understand systems of language e.g. grammatical aspects: present tense, conjunctions, case system. Reflect on their learning. <p>Connecting with Culture Understand elements of culture relating to the lecture.</p> <ul style="list-style-type: none"> In what way is the lotus plant considered sacred in Asian cultures? 	<p>Formative: Schreiben A1/A2: AB 4.1 Impulsbild A2/B1: AB 4.1 Impulsbild</p>	4, 6, 7	<p>Materials: A1/A2:</p> <ul style="list-style-type: none"> Kohlblätter Spülmittel Mehl Wasser Pipetten Plakat DIN A3-Blatt <p>A2/B1:</p> <ul style="list-style-type: none"> Objekträger aus Glas 1 Kerze 1 Pipette Wasser <p>Resources:</p> <ul style="list-style-type: none"> 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 <p>Additional Teacher Resources:</p> <p>Handbook, attachments and video script are available for pdf download from the teacher's version of the website.</p> <p>Materials for download: Bionik: Die Natur als Vorbild https://www.wasistwas.de/details-technik/bionik-die-natur-als-vorbild.html</p>
		<p>Formative: Lesen/ Zuordnen/Schreiben A1/A2: AB 4.2 Experiment A2/B1: AB 4.2 Das Geheimnis der Lotusblätter</p>	1, 2, 6, 7 4, 6, 7, 11, 12	
		<p>Formative: Lesen/ Zuordnen/ Schreiben A1/A2: AB 4.3 Von der Natur abgeguckt: Der Lotuseffekt A2/B1: AB 4.3 Experiment</p>	4, 6, 7 1, 2, 6, 7, 11, 12	
		<p>Summative: Schreiben/Sprechen</p> <p>Mein Fachvortrag: Vorbereite und halte einen kleinen Fachvortrag mit einer Power-Point-Präsentation über den Lotuseffekt (AB 4.2/4.3). Deine Kollegen bewerten die Vorträge nach drei Kriterien: fachlich, sprachlich, grafisch / visuell.</p>	1, 2, 4, 5 6, 7, 11, 12	
	<p>Inquiry Based: Students select an area of interest around the concept of <i>Lotuseffekt</i> (see Content Focus above for further ideas) and present their findings to the class, year level, school community or wider audience.</p> <p>Hands-on Tasks:</p> <p>Experiment further with different growing conditions in the Goethe Unit: Meine Bohnenpflanze: https://www.goethe.de/ins/au/de/spr/unt/kum/cli/cli/ste/mb.html</p>	1, 3, 4, 5, 7, 9, 10, 12, 15, 16, 17, 18		

Lecture: Lotuseffekt 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 ... <ul style="list-style-type: none"> engage and sustain interactions with peers in class, group and paired activities 	1, 2, 5						
<ul style="list-style-type: none"> understand a film and a text about the discovery and the working of the lotus effect. 	6, 7, 8, 11						
<ul style="list-style-type: none"> perform experiments according to instructions and document the observations. 	1, 2, 6, 7						
<ul style="list-style-type: none"> correctly assign picture headings. 	6, 7						
<ul style="list-style-type: none"> write and present a specialist lecture using a PowerPoint Presentation about the content of the film and text. 	1, 2, 4, 5 6, 7, 11, 12						
<ul style="list-style-type: none"> recognise and describe the possibilities of using the lotus effect in everyday life. 	6, 7, 12, 13, 14						
<ul style="list-style-type: none"> understand the text type of a specialist lecture using a PowerPoint presentation. 	16, 17						
<ul style="list-style-type: none"> understand systems of language e.g. grammatical aspects: present tense, conjunctions, case system. 	4, 11, 15						
<ul style="list-style-type: none"> reflect on my learning. 	13, 18						
<ul style="list-style-type: none"> understand elements of culture relating to the lecture. 	13, 14, 17, 18						
<ul style="list-style-type: none"> understand the applied content of a technical video. 	(ACSSU175)						

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.