German Digital Kinderuniversity — German and STEM

Faculty: Nature (Natur)

**Lecture:** Falling Ants (Ameisensturz)

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#### **Objectives**

- The children know that ants survive when they fall from a high-rise.
- The children know facts about ants.

#### **German language goals**

- The children can understand simple sentences in German.
- The children can write a short profile about themselves (*Ich bin...Ich wohne in....Ich lebe in...Am liebsten esse ich...*)
- The children can expand their active and passive German vocabulary.

\* Although the language of instruction is English, the lesson plan sequences highlighted in orange are taught in German.

#### **Materials**

- Magnets
- Whiteboard markers/chalk
- Laptop and projector
- Audio speakers
- Red Wood Ant (Waldameise) image card
- White paper (8.5 x 5.5)
- Pencils/crayons
- My Profile (Mein Steckbrief) worksheet
- Red Wood Ants True or False? (Waldameisen richtig oder falsch?) question sheet, sentence slips, and answer sheets
- 2x True and False (richtig und falsch) word cards
- Blue tape
- A sheet of standard letter paper (8.5 x 11)
- A rock
- A glove
- 3 chairs
- "My word bank sheet: Falling Ants (Ameisensturz)"
- Portfolios



Time	Social Form	Learning Objective	Content	Materials
5 min	Interactive classroom dialogue	The children know the word die Waldameise and can pronounce it correctly. The children know adjectives to describe an object. The children can activate their prior knowledge of the topic of today's lesson.	The instructor welcomes the children to today's lesson. The instructor then invites the children to watch a short sequence of a video to learn about today's topic (minute 1:20-2:11). After watching the sequence, the instructor says/asks: The film is about ants. Did you notice what type of ants they are? The children respond. The instructor introduces the German word die Waldameise and writes it on the board. The children repeat the word to practice their pronunciation. The instructor asks the children to work with their partner and find German adjectives to describe the red wood ant. After 2 minutes the pairs share their ideas with the class. The instructor writes the adjectives on the board.	Magnets Whiteboard markers/chalk Laptop and projector Audio speakers Red Wood Ant (Waldameise) image card
5 min	min Interactive classroom dialogue  The children can understand simple sentences in German.		The children can understand simple sentences in  The instructor hands out the Red Wood Ant (Waldameise) profile and reads out the sentences. While reading, the instructor uses	



Time	Social Form	Learning Objective	Content	Materials
5 min	Group work	The children can illustrate the meaning of a sentence.	The instructor divides the children into 3 groups and hands out two sentences from the <i>Red Wood Ant</i> profile to each group. The instructor invites the children to draw pictures illustrating the meaning of their sentences on white paper. The instructor hands out two 8.5 x 5.5 papers to each group. The children draw pictures that illustrate the meaning of their sentences.  Note: For this activity the instructor cuts out the sentences from the <i>Red Wood Ant</i> profile before class.	White 8.5 x 5.5 paper Pencils/crayons Red Wood Ant (Waldameise) profile
4 min	classroom dialogue match pictures to sentences. them on the board (under the word die Waldameise). The instructor invites the children to form a circle around the boar to look at the drawings. The instructor as Who knows which sentence belongs to the first picture?  The children guess the sentences that be		Waldameise). The instructor invites the children to form a circle around the board and to look at the drawings. The instructor asks: Who knows which sentence belongs to the first picture?  The children guess the sentences that belong to each picture and put the sentences next to	Magnets Drawings <i>Red Wood Ant</i> ( <i>Waldameise</i> ) profile



Time	Social Form	Learning Objective	Content	Materials
5 min	Interactive classroom dialogue	The children know vocabulary and chunks to write their own profile in German.	The instructor explains: We are now familiar with the profile of the red wood ant. Let's write our own profiles similar to the one for the red wood ant.  The instructor and the children create a parallel profile on the board:  Ich bin eine Waldameise. — Ich bin ein Mädchen/Junge.  Ich lebe im Wald. — Ich lebe in Boston.  Ich lebe in einem Ameisenhaufen — Ich lebe in einem Haus/einer Wohnung.  Ich bin klein. — Ich bin klein/groß.  Ich bin stark — Ich bin stark.  Am liebsten esse ich Insekten — Am liebsten esse ich  Note: For the last sentence the instructor collects several words on the board with the children and then individually supports the children to find the German words for their favorite foods while they work on their profiles.	Whiteboard markers/chalk



Time	Social Form	Learning Objective	Content	Materials
8 min	Individual work	The children can use chunks to write their own profiles in German.	The instructor explains the next task: Let's write our own profiles. I will hand out a worksheet. (The instructor shows the worksheet while explaining it). On the left side you see the profile for the red wood ant; on the right side you can write your own profile. The chunks on the board will help you to write your profile. When you are done writing, you can add drawings that explain the meaning of each sentence. Do you have any questions about this task?  The children write their own profiles. The instructor supports children who need help.	My Profile (Mein Steckbrief) worksheet
3 min	Partner work	The children can read out their profiles in German.	The instructor divides the children into pairs and encourages them to present their profiles to each other.	My Profile (Mein Steckbrief) worksheet



Time	Social Form	Learning Objective	Content	Materials
5 min	Interactive classroom dialogue	The children can guess whether a statement is true or not. The children can compare their guesses with the correct solution. The children know facts about ants.	The instructor puts a <i>True</i> and a <i>False</i> word card in two different corners of the classroom and on the board. The instructor takes out the <i>Red Wood Ants</i> — <i>True or False?</i> question sheet and asks the children to gather in the middle of the classroom. The instructor explains: <i>I will read out some interesting statements about red wood ants. You have to decide whether the information is true or false. If you think the statement is true, you have to go to the section of the room with the "True" word card; if you think it is false, you have to go to the section with the "False" word card. After the children decide whether a statement is true or false, the instructor puts each statement under the "True" or "False" word card on the board. If a statement was wrong, the instructor reads out the correct statement from the <i>Red Wood Ants</i> (<i>Waldameisen</i>) answer sheet.  The last statement is: <i>Ants can survive falling from a high-rise building.</i> For this statement, the instructor does not put a slip of paper with the correct answer on the board. Instead, the instructor invites the children to do an experiment that will help them decide.</i>	Red Wood Ants — True or False? (Waldameisen – richtig oder falsch?) question sheet, sentence slips, and answer sheets 2x True and False (richtig und falsch) word cards Blue tape Magnets



8 min	Interactive classroom dialogue	The children can form a hypothesis. The children can test their hypothesis through an experiment. The children know the adjective leicht and how to compare it.	The instructor and children gather around a table in the classroom. The instructor reminds the children of the sentence in the ant profile: An ant weighs only a few milligrams. This means that ants are very light. This is very important for our experiment. For the experiment, the instructor places a standard sheet of letter paper (8.5 x 11), a rock, and a glove on the table. The children describe what is light/leicht — lighter/leichter — the lightest/am leichtesten.  Then the instructor places three chairs at the front of the table and asks three children to stand on the chairs. One child is given the sheet of paper, another is given the rock, and the third is given the glove. They are instructed to drop the objects from the same height on the instructor's command. Before they do this, the instructor asks the children to guess which object will reach the floor first. Then the objects are dropped.  The children observe the order in which the objects hit the floor.  The instructor encourages the children to think about the connection between weight and the fall velocity: The lightest object lands last and the heaviest lands first. This means: Since ants are even lighter than paper, they fall even more slowly. They land very softly and survive the fall. The instructor puts the final sentence slip on the board: Ants can survive falling from a high-rise building.	A sheet of standard letter paper (8.5 x 11) A rock A glove 3 chairs



Time	Social Form	Learning Objective	Content	Materials
5 min	Interactive classroom dialogue	The children can compare their conclusions from the experiment with information provided by a scientist.	The instructor invites the students to watch the video to check their conclusion from the experiment (minute 1:20 - 5:49).	Laptop and projector Audio speakers
7 min	Interactive classroom dialogue	The children reflect on what they learned in today's lesson and repeat the German words they learned today.	The instructor and the children end the unit with a reflection round in which they discuss what they learned. The instructor encourages the children to repeat the German words from the lesson. Each child then fills out "My word bank sheet: Falling ants (Ameisensturz)" for this lecture and writes down the German words and chunks they learned in today's lesson.  The students file today's materials in their portfolios.	"My word bank sheet: Falling ants (Ameisensturz)" Portfolios Worksheets



**Profile** Red wood ant (Waldameise)



Ich lebe im Wald.

Ich wohne in einem Ameisenhaufen.

Ich bin klein.

Ich bin stark.

Ich wiege nur ein paar Gramm.

Am liebsten esse ich Insekten.





## **Worksheet** My profile (Mein Steckbrief)

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Ich bin eine Waldameise.	*	
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	*	
Ich lebe im Wald.	*	
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Ich wahna in ainam Amaican	*	
Ich wohne in einem Ameisen-	*	
haufen.	*	
	*	
Ich bin klein.	*	
ich bill Richi.	*	
	*	
Ich bin stark.	*	
	*	
	*	
Ich wiege nur ein paar Gramm.	*	
	*	
Am liebsten esse ich Insekten.	*	
Alli liebstell esse itil ilisektell.	*	
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## **Sentence slips** *Red wood ants (Waldameisen)*

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**Image card** *Red wood ant (Waldameise)* 





**Question sheet** Red wood ants - True or false? (Waldameisen - richtig oder falsch?)

- There are multiple thousands of types of ants in the world. (true)
- An African ant type hibernates through winters of -40 degrees Celsius. **(false)**
- The largest ants are up to 50 centimeters long. (false)
- The longest known ant colony is 5,760 km long. (true)
- Ants communicate with their feelers. (true)
- Desert ants can run approximately 10 meters per second. (false)
- Ants can survive falling out of a high-rise building. (true)





#### **Answer sheet** *Red wood ants (Waldameisen)*

- There are multiple thousands of types of ants in the world.
- A **Siberian** ant type hibernates through winters of -40 degrees Celsius.
- The largest ants are up to **7 centimeters** long.
- The longest known ant colony is 5,760 km long.
- Ants communicate with their feelers.
- Desert ants can run approximately **1 meter per second**.
- Ants can survive falling out of a high-rise building.



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# **Sentence slips** *Red wood ants (Waldameisen)*

There are multiple thousands of types of ants in the world. $\divideontimes$	In the World
A Siberian ant type hibernates through winters of -40 degrees Celsius.	ough
The largest ants are up to 7 centimeters long.	rs long.
	km long.



# **Sentence slips** *Red wood ants (Waldameisen)*

Ants communicate with their feelers.	Desert ants can run approximately 1 meter per second.	Ants can survive falling out of a high-rise building.
<b>4</b>	Desert ant	 Ants can