

Content

- Why do shells sound like the ocean?

Target group

- Children ages 8 to 12
- Level: A1 / A2

Language goals

The children will be able to

- Understand a short (technical) film
- Find precise information in a text
- Expand their passive and active vocabulary
- Understand technical terminology in context
- Understand and answer simple thematic questions
- Ask questions and come up with appropriate answers in a dialogue
- Use sentences in a logical order
- Formulate their ideas/opinions using simple verbal tools
- Use and develop learning strategies (using images to enhance understanding, make notes, make conjectures, reconstruct processes, and correctly spell words)
- Prepare and give a short presentation to the group
- Understand and follow instructions
- Develop a mini-project in cooperation with others ("School" sound cocktail)

Word bank

Meer (ocean), *Muschel* (shell), *Meeresrauschen* (rushing of the ocean), *rauschen* (rushing), *lauschen* (listen), *Tonstudio* (sound studio), *Sound* (sound), *Klang* (sound), *klingen* (to make a sound), *Verkehr* (traffic), *Wald* (woods), *still* (quiet), *leer* (empty), *kaputt* (broken), *Geräusch* (sound), *merkwürdig* (strange)

Materials

- Blackboard and chalk/whiteboard and pen
- Shell (Snail/gastropod shell)
- Water glasses
- Envelopes
- Recording devices (such as cell phones)
- Mesh shopping bag ("Fishing net")
- Laptop and projector
- Audio speakers
- Students' portfolios

Materials for printing and/or copying

- *Shell sound* (Muschelsound) cut-out template
- *Shell sound* (Muschelsound) worksheet
- *Shell sound Dialogue A* (Muschelsound Wechselspiel A) worksheet
- *Shell sound Dialogue B* (Muschelsound Wechselspiel B) worksheet
- *Shell sound Dialogue* (Wechselspiel Muschelsound) answer key
- *Shell sound* (Muschelsound) cut-out template
- *Shell sound* (Muschelsound) word bank
- My word bank sheet *Shell sound* (Muschelsound)
- *Now I know* (Ich kann schon) questionnaire

Duration

3x45 minutes

Before the lecture/film		
Step	Content	Materials
1	<p>Instructor welcomes the children and begins class by playing the sound of the <i>rushing of the ocean</i> (Meeresrauschen) for the children. The children should guess what they are hearing. The word "rushing of the ocean" (Meeresrauschen) is written on the board. Optional: The children repeat the German word in order to practice pronunciation.</p> <p><u>Note:</u> Here is one source for the sound of the <i>rushing of the ocean</i> (Meeresrauschen): https://www.youtube.com/watch?v=SQuMfKFum_U</p>	Laptop and projector; Audio speakers; Blackboard and chalk/whiteboard and markers;
2	Instructor asks the children: <i>Who knows this sound from personal experience? Who has stood by the ocean and heard the rushing of the water?</i> Students share their experiences at the ocean.	Laptop and projector; Audio speakers
3	Instructor stops the rushing ocean sound and takes out a shell (snail/gastropod shell). Instructor holds the shell to their ear with a concentrated and surprised expression and hands the shell to the children to be passed around and says: <i>Strange! Do you also hear the rushing of the ocean in the shell?</i>	Shell (Snail/gastropod shell)
4	After all the children have had a chance to hold the shell to their ears, the instructor asks the following question: <i>Is that possible? Can we really hear the rushing of the ocean in the shell? What do you think?</i> The children formulate their opinions.	
During the lecture/film		
Step	Content	Materials
5	<p>Instructor suggests that they watch a film and look for the answer. Instructor says: <i>Let's watch a film to find out the truth about this.</i></p> <p>Instructor and children watch the first sequence of the film (Minute 1:33-3:47)</p>	Laptop and projector; Audio speakers
6	After watching the sequence once, the children share with the group what they think they have understood. Instructor moderates the discussion and helps the children to understand: <i>We heard the sounds of our surroundings in the shell.</i>	

7	<p>Instructor says: <i>Let's see if that is also the case with our shell.</i></p> <p>The shell is handed around, each child experiences the different sounds with the window open and closed, like Christoph did in the film.</p>	Shell (Snail/gastropod shell)
8	<p>Instructor says: <i>Let's try this with a water glass.</i> Instructor hands each child a water glass and the children continue the experiment : <i>Water glass to the ear, open the window, close the window.</i></p>	Water glasses
9	<p>Instructor divides the children into four groups. Each group is given an envelope with sentence cutouts. Instructor says: <i>Here are the steps that our field researcher, Christoph, took to find out where the sound of the rushing of the ocean in the shell came from. We're going to watch the film sequence one more time. While watching the film or after watching the film, put the sentence cutouts in the right order.</i></p> <p>The results of the small group work are discussed in the class as a whole and the instructor projects the answer key on the board/ screen.</p>	Laptop and projector; Audio speakers; <i>Shell sound (Muschelsound)</i> cutout template; <i>Shell sound (Muschelsound)</i> answer key; Envelopes
10	<p>Instructor asks the question: <i>What do you think, what do we hear when we're standing in the woods?</i></p> <p>The children make conjectures and to test this they watch the last sequence of the film (Minute 3:47-4:00).</p>	Laptop and projector; Audio speakers

After the lecture/film

Step	Content	Materials
11	<p>After watching the film, the children work in pairs to summarize the content that they learned with the help of an dialogue. Instructor explains the exercise: <i>Now you will be working in pairs. Each pair gets two worksheets, an A worksheet and a B worksheet. Student A with the A worksheet asks a question. Student B has the answer on the B worksheet. So student B answers the questions and student A writes the answer down. Let's try this out.</i></p> <p>At the end the children compare their answers with the answer key that the instructor has posted in 3 or 4 places around the classroom.</p> <p>Note: If particularly knowledgeable children notice that the shell in the film is actually a snail/gastropod sheet, the instructor could integrate a short form of the "Bivalve and gastropod shells" project (see "Further ideas...") into the lesson.</p>	<i>Shell sound (Muschelsound)</i> worksheet - Dialogue A; <i>Shell sound (Muschelsound)</i> worksheet - Dialogue B; <i>Shell sound (Muschelsound)</i> dialogue answer key

12	<p>Instructor asks: <i>So what are we hearing in the shell?</i> The children answer: <i>The rushing of the ocean (Meeresrauschen).</i> Instructor says: <i>In German, this is also called "Muschelsound" or "shell sound."</i> Where does the word "sound" come from and what does it mean? Instructor writes the word "sound" (Klang) on the board.</p>	Blackboard and chalk/whiteboard and markers
13	<p>Instructor says: <i>We know what the ocean sounds like. And also what a city sounds like. We also know the sound of the woods.</i> While saying this, the instructor writes the words "Ocean" (Meer), "City" (Stadt), "Woods" (Wald) around the word "sound" (Klang) on the board.</p> <p>The instructor continues: <i>But what does our school sound like? Which sounds do we hear in school?</i> The children collect ideas: <i>e.g., playground, cafeteria, gym class, gym, bell, recess, the start of class, working, music class, the school radio, etc.</i> This is also written on the board: "Sound" - "School" - "Playground", "Cafeteria" etc.</p>	Blackboard and chalk/whiteboard and markers
14	<p>Instructor divides the children into groups by type of sound. Each group gets a recording device (cell phone). They are instructed to record the sound that they are in charge of. The recordings are then gathered into a "sound cocktail" with the help of the instructor (and/or the computer science teacher) in the form of an mp3 file.</p> <p>If the children would like, they can make a "sound quiz" for the children in other classes. They play the "sound cocktail" for the other students and have them answer the questions on the quiz.</p>	Recording devices (cell phones)
15	<p>Instructor hands out the My word bank sheet <i>Shell sound (Muschelsound)</i> to the children. Instructor places the "shell words," which he or she has cut out in advance and folded in half, into a "fishing net." The instructor goes around to all the students with the net. Each child fishes a shell out of the net, opens it and reads the word on the sheet. The other children write down the word on their word bank sheet. The instructor projects the <i>Shell sound (Muschelsound)</i> word bank on the board/screen and the students check their own work.</p>	<i>Shell sound (Muschelsound)</i> cut-out template; <i>Shell sound (Muschelsound)</i> word bank; My word bank sheet <i>Shell sound (Muschelsound)</i> ; Mesh shopping bag ("Fishing net")
16	<p>Instructor and children end the unit with a reflection round, in which they discuss what they have learned. Each child then fills out a <i>Now I know (Ich kann schon)</i> questionnaire to find out whether they have achieved the learning objectives. Instructor also gives feedback on student performance.</p>	<i>Now I know (Ich kann schon)</i> questionnaire
17	<p>The children hold onto the following in their portfolios:</p> <ul style="list-style-type: none"> - <i>Shell sound (Muschelsound)</i> dialogue worksheet - My word bank sheet <i>Shell sound (Muschelsound)</i> - <i>Now I know (Ich kann schon)</i> questionnaire 	Portfolios

Further ideas for subject matter or CLIL teaching (Social studies, Biology, Art):

- Bivalve and gastropod shell project
 - Clarify the meaning of what we refer to as "shells" (Muscheln) <https://goo.gl/2cCtCW>
 - Collect information about bivalves and gastropods, create posters, etc.
- Auricle (*Ohrmuschel*, or 'ear shell' in German) project - "Each ear is different, unique, like our fingerprint"
 - Collect information about how auricles function in humans and animals
 - Create a gallery in which one has to guess the auricles of the children in the group
- Create a sandbox with shells designed by the students themselves

Suggestion for the children at the end of the learning scenario

At the very end, the children gather around a computer or the instructor projects a computer desktop onto a screen. They look at the home page of the German Digital Kinderuniversity together. The instructor explains to the children that they now have completed the *Shell sound* (Muschelsound) lecture in the *Nature* faculty together and draws their attention to the fact that there are many more interesting lectures in this faculty and in the *Humankind* and *Technology* faculties.

The instructor and the children click together on the At Home link and discover how the website works. As an example, the instructor logs in and goes to the lecture that they just worked through.

The instructor shows the children that the lecture begins with an introduction by Professor Einstein and Ms. Schlau and that their work is supported by Jowo and Christoph, the field researcher. Professor Einstein and Ms. Schlau also wrap up all the lectures and thereby frame the work on each theme.

The instructor explains to the children that they can re-watch the film at home and can even set the subtitles to German or English. That way, they can "catch" key words while watching and use these to collect points and solve three exercises and a bonus exercise on the film. The children can also get help from their parents or grandparents, from registering to solving the exercises. The whole family can have fun learning and everyone gradually becomes a professor at the Kinderuni.