

Content

- Minor injuries
- How a cut happens
- How a cut heals

Target group

- Children ages 10 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
- Express their ideas/opinions using simple language
- Use and develop learning strategies (use pictures as a learning tool, take notes, make conjectures, reconstruct story lines, correctly spell words)
- Reconstruct chronological sequences
- Memorize a short text
- Match pictures and sentences
- Complete a fill-in-the-blank
- Act a part in a game
- Understand and follow instructions

Word bank

mit dem Fahrrad umfallen (to fall off one's bicycle), *stolpern* (to trip), *vom Baum fallen* (to fall from a tree), *sich in den Finger schneiden* (to cut one's finger), *sich verletzen* (to injure oneself), *Verletzung* (injury), *leicht/schwer* (minor/serious), *Wunde* (wound), *heilen* (to heal), *Blut* (blood), *bluten* (to bleed), *Pflaster* (band-aid), *trocken/nass* (dry/wet), *empfindlich* (sensitive), *Narbe* (scar), *Adern* (veins), *Ersatzadern* (replacement veins), *Blutgerinnung* (blood clotting), *Fresszellen* (scavenger cells), *Wundwasser* (clear liquid), *Fibroblasten* (fibroblasts), *Gewebe* (tissue)

Materials

- Laptop and projector
- Audio speakers
- Blackboard and chalk/whiteboard and markers
- Magnets/blu-tack
- Camera
- Students' portfolios

Materials for printing and/or copying

- *Benjamin injured himself* (Benjamin hat sich verletzt) pictures
- *Benjamin injured himself* (Benjamin hat sich verletzt) sentences
- *Benjamin injured himself* (Benjamin hat sich verletzt) worksheet
- *Benjamin injured himself* (Benjamin hat sich verletzt) answer key (for instructor)
- *Wound healing* (Wunde heilt) pictures
- *Wound healing* (Wunde heilt) worksheet
- *Wound healing* (Wunde heilt) answer key (for instructor)
- *From a cut to a scar* (Vom Schnitt zur Narbe) worksheet
- *From a cut to a scar* (Vom Schnitt zur Narbe) answer key

- *Wound healing (Wunde heilt)* word bank
- My word bank sheet *Wound healing (Wunde heilt)*
- *Now I know (Ich kann schon)* questionnaire

Materials for download

Quick, a band-aid (Schnell ein Pflaster) picture: <https://goo.gl/qayJZL>

Duration

3x45 minutes

Before the lecture/film		
Step	Content	Materials
1	<p>Instructor shows the children the "Quick, a band-aid" (Schnell ein Pflaster) picture and asks which situations it applies to. The children list situations in which they might have gotten a minor injury and needed a band-aid. If they currently have a minor injury, they can show it and explain how they got it.</p> <p>Note: A current minor injury of a child or of the instructor can be the occasion for treatment of this topic.</p>	Laptop and projector; <i>Quick, a band-aid (Schnell ein Pflaster)</i> picture
2	<p>Instructor shows the children the <i>Benjamin injured himself (Benjamin hat sich verletzt)</i> pictures and discusses the situations with them. The children formulate their ideas and the instructor provides assistance as needed:</p> <p><i>Benjamin fell from his bike and injured his elbow.</i> <i>Benjamin cut his fingers with scissors.</i> <i>Benjamin tripped and hurt his knee.</i> <i>Benjamin hit his forehead.</i> <i>Benjamin fell from a tree and hurt his foot.</i></p>	<i>Benjamin injured himself (Benjamin hat sich verletzt)</i> pictures
3	<p>Instructor hangs the photos on the board and places the corresponding sentences on the teacher's desk. The children match the sentences to the pictures.</p>	<i>Benjamin injured himself (Benjamin hat sich verletzt)</i> sentences; Magnets/blu-tack
4	<p>Instructor invites the children to repeat the sentences as a group. As they repeat the sentences, the instructor takes the sentences from the board one after the other. The last time the sentences are read aloud they can no longer be seen, and the children must repeat them from memory.</p>	
5	<p>After this, the instructor hands out the <i>Benjamin injured himself</i> worksheet. The children work on the worksheet, at first individually. Instructor helps if needed. They compare their answers in pairs and discuss the results as a group.</p>	<i>Benjamin injured himself</i> worksheet; <i>Benjamin injured himself</i> answer key (for instructor)
6	<p>Instructor asks the children what is under the band-aid. The children answer and the instructor writes the word "wound" (Wunde) on the board.</p>	Blackboard and chalk/whiteboard and markers

7	Instructor asks the children whether they have ever seen how a wound heals. The children share their experiences.	
During the lecture/film		
Step	Content	Materials
8	Instructor places the pictures from the film on the teacher's desk/floor and asks the children to place them in order: <i>What happens first? What happens next? What happens after that? What happens at the end?</i>	<i>Wound healing</i> (Wunde heilt) pictures
9	To check their answers the children watch the film sequence (Minute: 2:13-9:17).	Laptop and projector; Audio speakers
10	Instructor then hands out the <i>Wound healing</i> worksheet and the children match the sentences to the pictures. Instructor helps if needed. The results are discussed as a group.	<i>Wound healing</i> worksheet; <i>Wound healing</i> answer key (for instructor)
11	<p>Instructor says: <i>Of course, this doesn't happen from today to tomorrow. Did someone hear how long it takes until there is only a white scar that shows where the bleeding cut was? - (Yes exactly) 10 weeks!</i></p> <p>Instructor draws a time-line on the board and marks the times: <i>10 minutes, 2 hours, 4 days, 6 days, 3 weeks, 10 weeks.</i> Instructor suggests that they watch the film and determine what happens at each point.</p>	Blackboard and chalk/whiteboard and markers
12	<p>Instructor stops the film after each sequence and discusses the steps in which a wound heals with the children. During the discussion, the instructor introduces important words and expressions and writes them on the time-line: <i>veins, blood clotting (at 10 minutes), scavenger cells (at 2 hours), clear liquid (at 2 hours), replacement veins (at day 4), fibroblasts (at day 6), new tissue (at day 6), red scar (at 3 weeks), white scar (at 10 weeks)</i></p> <p>Sequence 1: (Minute: 2:13-5:24) <i>Christoph cuts his finger. He severed a vein in his finger. Blood is flowing in the vein. The finger bleeds and the blood rinses the wound. The the blood begins to clot. By 10 minutes the blood has closed the cut.</i></p> <p>Sequence 2: (Minute: 5:24-6:58) <i>After two hours the scavenger cells arrive and clean up. They chase away and eat the bacteria. Clear liquid comes out of the wound. If the liquid is clear, everything is ok. The wound is still very sensitive though, and must be protected.</i></p> <p>Sequence 3: (Minute:6:58-9:17) <i>On the fourth day, very thin new (replacement) veins form. They grow from both sides of the wound. On the sixth day</i></p>	Laptop and projector; Audio speakers; Blackboard and chalk/whiteboard and markers

	<p><i>the fibroblasts begin their work. They shrink together the two sides of the wound and form new tissue. This is how a scar forms. After three weeks, the new scar is still red due to the many new small veins. After ten weeks, the new scar tissue is very strong. The small veins disappear and the scar becomes white.</i></p> <p>Note: There are interesting linkages to the <i>Blood donation (Blutspende)</i> lecture if the students have already worked through it, or are about to do so.</p>	
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After the lecture/film

Step	Content	Materials
13	<p>Instructor hands out the <i>From a cut to a scar</i> worksheet. The children work individually, with help from what is projected on the board. If needed, they can consult with the students next to them or with the instructor. They check their work with the help of the answer key, which the instructor projects.</p>	<p>Laptop and projector; <i>From a cut to a scar (Vom Schnitt zur Narbe)</i> worksheet; <i>From a cut to a scar (Vom Schnitt zur Narbe)</i> answer key</p>
14	<p>Instructor invites the children to act out a game. He or she divides the children into groups. The first group (cut) stands close together in pairs. At the start of the game a child comes with outstretched arms and divides the children, who are now on either side of the cut. The second group (red blood cells) runs over and the children "clump" together. They ensure tht the blood clots. Then a third group takes over (scavenger cells and bacteria). The scavenger cells chase away and catch the bacteria. At the end, the fourth group arrives (fibroblasts). They run back and forth and pull the two sides of the wound together.</p> <p>Note: Do not forget to take photos or videos, which the children can watch afterward and show their friends and/or their parents.</p>	<p>Camera</p>
15	<p>Instructor projects the word bank <i>Wound healing (Wunde heilt)</i> on the board and hands out the word bank sheet <i>Wound healing (Wunde heilt)</i> to the children. The children copy down ten words that they find interesting in red pen on their sheet, which they can decorate with blood drops, etc.</p>	<p><i>Wound healing (Wunde heilt)</i> word bank; My word bank sheet <i>Wound healing (Wunde heilt)</i></p>
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 the <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>	<p><i>Now I know (Ich kann schon)</i> questionnaire</p>
17	<p>The children hold onto the following in their portfolios:</p> <ul style="list-style-type: none"> - <i>Benjamin injured himself</i> worksheet - <i>Wound healing</i> worksheet - <i>From a cut to a scar</i> worksheet - My word bank sheet <i>Wound healing (Wunde heilt)</i> - <i>Now I know (Ich kann schon)</i> questionnaire 	<p>Portfolios</p>

Teaching materials

Further ideas for subject matter or CLIL teaching (natural sciences, biology):

- Brief first aid course, including how to care for minor injuries
- Discussion with a makeup artist about how one creates bleeding wounds (for Halloween, for example)
- Create artificial blood, i.e., <https://www.youtube.com/watch?v=xAamRNwYdeA>

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 *Wound Healing* (Wunde heilt) lecture in the *Humankind* faculty together and draws their attention to the fact that there are many more interesting lectures in this faculty and in the *Technology* and *Nature* 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.