This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 723375

Empowerment Workshop on Bicycle Repair

In two school hours, common repairs on the children's own bicycles should be discussed with the children and at least carried out on a bicycle that is used for demonstration purposes. To do so, the workshop leaders visit schools with a bicycle and prepared materials (such as defective bicycle tubes and tools). If possible, the children bring their own bicycles and check the discussed parts on their own bikes during the workshop. Tips are given for repairs at home or in a bicycle shop.
Depending on the age of the children, it may be possible to work on their own bicycles at the same time. For younger children, it is advisable to work together on one bicycle.

The **framework of the workshop** consists of 3 school lessons (at 50 minutes) and the support of 2 persons. The target groups are children aged 10 to 13 and 14 to 17 years with a group size up to 10 children but max. 12 children. It is advisable to have homogeneous age groups. If the age difference is too big, some children might get bored or get too much input.

The **aims** of the workshop:

- Acquire basic skills in common bicycle repair situations which can be done on one's own bicycle with basic tools
- Removal of inhibitions to do minor repairs yourself or with friends or family
- Recognize problems and defects on the bicycle
- Development of skills for independent bicycle repair
- Appreciation of one's own bike and strengthening the positive relationship to bicycles

Used materials:
Cat eyes, spoke sticks and reflector stickers for mounting on the children's bicycles on-site and if possible, also bells to replace missing ones on children's bicycles.
Common tools such as wrenches, screwdrivers, hex-wrenches, pliers, side cutters, tire levers, talc/baby powder, chain oil, chain gauge, chain riveter, petroleum and rags, (tooth-)brushes, tire repair sets, disposable gloves, bicycle pump etc. A bicycle repair stand would be handy.

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Structure of the workshop:

time	content	material	additional info
15'	initial hellos, gathering of the children, going to the bicycle(s)		
15'	Explanation of the most important bicycle parts • brakes • tires • chain • circuit • lighting system • various attachments and equipment compliant with the legal regulations	Bicycle (compliant with legal regulations) for illustration, bring an as "cool" bicycle as possible, such as a city bike, a racing bike, a cargo bike or similar to demonstrate the variety of bikes for everyday use available	
30'	correctly adjust, readjust or replace the brakes	take and show common brake shoes for swapping (cantilever, V-brake)	
15'	proper chain care Chain dropped - how do I put it back on? judgement of whether the chain should be exchanged short theory of how to change a chain	(defective) bicycle chain, chain oil, chain gauge, chain riveter, disposable gloves, rags and petroleum, old toothbrush	show and explain the chain gauge and the chain riveter
10' break			
20'	change tires and inner tube	an additional, already removed wheel, spare tube, tire levers and a bicycle pump would be ideal	
15'	repair (glue) the inner tube	bicycle tube with puncture, repair kit for bicycle tubes	
10'	The lighting system does not work - what can be the causes?	replacement bulbs, cables, clip-on lights for demonstration	explain the causes of this common bicycle problem, advantages of the hub dynamo, advantages and disadvantages of clip-on lights; explain the advantages of LED lighting with capacitors
10'	Cat eyes, bell and Co. - is the bicycle properly equipped?	cat eyes, spoke sticks, front and rear reflectors, reflector stickers, bell, clip-on lights	check bicycles on site, replace missing reflectors, replace missing bells (at home)
10'	summary	refer to circuit - you can also adjust the circuit yourself, for children this is probably too much information	answer the children's open questions