Lesson (title): The Effects of Forces	Subject: Physics Topic: Forces					
Language competence level A1 □ A2 √ B1 □ B2 □ C1 □	Prerequisites / requirements: (e. g.: language or content revision or preparation; use of L1 in specified teaching segments) Revision : Students already know basic vocabulary such as: das Gesicht/der Ball/sich bewegen/ der Körper New: Vocabulary related to the effects of forces is new. This vocab. can be elicited					
Class/grade: 6 th grade	Age of learners:11					
Number of students in class: 11	Duration of lesson(s): 80-85 minutes					
Content of lesson: The effects of forces						

The current Lesson Plan was developed by Ms. Leontzakou Christina, German teacher and Ms. Athena Tsagogeorga, Physics teacher.

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Teaching aim	s/objectives	3							
			e effects of forces prces into two genera	•		•		g out experiments d the deformation of bo	odies.
			w forces acting on a rate or decelerate.	an objec	t may cau	se the object to	o change sh	ape (elastic or plasti	ic deformation), to
Cognition: Stu	idents ident	ify the effects o	of forces; they carr	y out exp	periments,	and classify th	ne effects of	forces into categorie	es.
Culture/ comn	nunity/ citizer	nship: Students	talk about the effects	s of forces	s in everyda	ay life			
phase	Content	Objective/	Student activity	Social	Material	Language: C2	Languag	Teacher activity	Notes, comments o
Pricese	Concent	Competence		form/	, media,		e:	icacher activity	processes &

time	Competence ("can-do" statements)	form/ settin g	, media, mobile lab	subject specific terminology	e: communi cation & interacti on	processes & outcomes = including affective outcomes, (self-) evaluation**	
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trigger 5 -10 min.	the effects of forces	make guesses/talk about forces	Sts first look at the pic. on p. 2 and try to answer Q. 1-2 orally Then they watch the video on you YouTube (without sound!) <u>https://</u> <u>www.youtube.co</u> <u>m/watch?</u> <u>v=XjwO9InuFJk</u> and talk about why the ball moved/ what happened when the ball hit the man's face	planar y	internet /video/ workshe et p. 2	Verzerrung plastisch, elastsich, sich bewegen werfen bremsen	Sts talk about what they saw in the video: Der Mann hat den Ball geworfen das Gesicht hat sich geändert	Lang T. and Stem T. motivate sts to talk, make guesses and provide input on the topic Then they show the video. Lang. T. keeps a note on BB of the new vocabulary when discussing the questions on p. 2	Sts liked the video and the laughed at the sight of the deformed face
introduce new vocab/ scaffolding 15-20 min.	sts are able to underst- and vocab. related to the effects of forces	vocabulary: sts can identify the meaning of the words	wsts work in pairs and do matching activity	pairs	workshe et p.3	see worksheet p. 3	sts work together	Both T. go round the class and help if necessary	the vocab. proved to be necessary for the next steps

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hypothesis 5 min.	the effects of forces	sts make hypothesis about how forces can act on an object	sts look at the material on the laboratory bench and make guesses about how the paper clip can be moved	plenar y	paper clip, scissors, paper, stand, magnet, thread	die Büroklammer das Papier der Magnet ein Laborstativ sich permanent- elastisch verformen	sts say: Ich kann die Büroklam mer pusten/ berühren -anfassen Ich nehme die Schere und schneide den Faden	Lang. T. encourages sts to make hypothesis and gives support when necessary	sts were actively involved
experimen- tation, (processes, results) verification of hypothesis 20 min.	the effects of forces	to detect the effect of forces	Experiment 1 Sts come to the laboratory bench and try different ways of moving the paper clip Experiment 2 Sts come to the laboratory bench and use their force on the objects which are on the bench	individ ual individ ual	paper clip, scissors, paper, stand, magnet, thread rubbers, sponges, plasticin e, paper clip a piece of paper, rubber band, a can	worksheet p. 4 worksheet p. 5	sts say: Ich kann sie mit meiner Hand bewegen Ich kann den Faden schneide n Ich kann die Büroklam mer pusten.	Stem T. gives instructions Lang T. gives the names of the objects in German. Then both T. observe and help if necessary	sts were actively involved and enjoyed coming to the laboratory bench to experiment

conclusion 5-10 min.	the effects of forces	to keep a written formulation of the conclusion	sts write their conclusions on the worksheets on p. 4-5 (see Ts notes)	plenar y	workshe et p. 4-5	sts write for example: Die Büroklammer bewegt sich, wenn ich Kraft einsetze. Kräfte können den Bewegungszus tand der Körper ändern		Lang.T. helps with the formulation of the conclusion	sts needed t's help with the formulation
transfer generalizati on application 15-20 min	the effects of forces	talk about the effects of forces in everyday life situations	sts look at the pic. on p. 1 and p. 6 and make a note of examples of effects of forces in everyday life Sts describe the effects of forces they see on the pics on the SB Noteboook and come to the SB and uncover it	pairs or groups plenar y	workshe et p. 1 & 6 SB Noteboo k	Die Spieler werfen den Ball Die Männer schieben das Auto	bremsen, den Ball werfen, den Bogen anspanne n	Both T. encourage discussion and support the sts Lang. T. monitors	sts participated actively they particularly liked coming to the SB.

Revision ex A i) and ex Aii) if time allows otherwise this part can be carried out in the next lesson. Ex Ai) and ex B. can be set as homework	the effects of forces	classify the effects of forces	sts classify the effects of forces (elastic-plastic deformation-start- stop moving) in ex. Ai.) Then they play the guessing game revise vocab in ex. B.	pairs ex Ai) or planar y ex. A ii) individ ual if set for home work	workshe et p.7-8	vocab. encountered during the lesson	sts work together	Both T. go round the class and help sts when necessary.	this part should not be rushed If time is not enough it is worth leaving it for the next lesson. Sts and T. enjoyed the guessing game.
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FL/STEM and the domains of the 4Cs

C1	Content / Learning outcomes	"know" (content): "be able to" (content, communication): "be aware" (content, cognition):

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C2	Communication: Language learning & Interaction	Vocabulary (revisited) Vocabulary (new): subject matter specific (CALP) Vocabulary (new): general (BICS) Structures (focus on grammar) Language functions (information, argumentation, questioning, reasoning)
C3	Cognition / cognitive processing: LOTS & HOTS	Remembering / Identifying Comparing Classifying Predicting Reasoning Synthesizing / creating
C4	Culture / Community	Awareness (of scientific topic as relevant for the culture / community) Involvement (project continuation outside of classroom) Communication (proliferation of scientific results in community)

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FL/STEM Lesson Planning / Template / Varna 28-06-2016

SChools: Fulure Lobs Erasmus+

**Note: this column refers to the lessons implemented during the school year 2015-2016. The comments concern exclusively the academic hours the lesson was made and because of the uniqueness and diversity of each class, it should not be expected to be exactly the same during another lesson.