



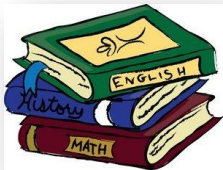




Summary

Virtual Reality- Put Your Feet in Open Pit



	<p>Target age</p> <p>Students between 12-19 years old</p>	
	<p>Level of difficulty</p> <p><input checked="" type="checkbox"/> Easy <input type="checkbox"/> Medium <input type="checkbox"/> High</p> <p>Key words: <i>virtual reality, open-pit mine, exploitation, natural stones, open-pit, technological process</i></p>	
	<p>Abstract of the activity: (up to 600 characters)</p> <p><i>The educational platform was made in a Virtual Reality (VR) environment. Platform consists of applications with different features and with the common goal in relying on familiarize participants with the process of raw materials extraction during the mining operation. The main advantage of this form of learning is the high level of immersion, which ensures students focus and full curiosity during the lesson. It significantly improves the efficiency of learning and remembering. Thanks of the VR applications, students will be able to recognize main technological processes used in quarry plants, additionally, trough to a VR walk, they will be aware of the real scale of existing mining plants which produce raw materials used in everyday life.</i></p>	

Summary

	<p>Learning Goals</p> <ul style="list-style-type: none"> • introducing the main technological processes used in the mining plant; • showing the real scale of the mining plant emphasizes the importance of aspects of circular economy and sustainable resource management, • presenting modern teaching techniques using VR applications in the context of the digital transformation of industry.
	<p>Specific Abilities - <i>At the end of the activity the student will be able to:</i></p> <ul style="list-style-type: none"> • List main technological processes used in quarry operation, • Indicate of mining method used for hard rock extraction, • Give examples of materials extracted by presented method, • Use advanced digital tools for educational purposes and give examples of possible applications in raw material sector,
	<p>Cross-curricula Links</p> <ul style="list-style-type: none"> • Ecology/Environment • Physics • Technology
	<p>Prerequisites - <i>Knowledge and skills necessary for carrying out the activity</i></p> <ul style="list-style-type: none"> • brief theoretical introduction
	<p>Time requirement</p> <p><input type="checkbox"/> 1 h</p> <p>Instruments: <i>VR workstation with goggles</i></p>
	<p>Learning and Teaching Support Materials - What you can find in the toolkit</p> <ol style="list-style-type: none"> 1. Student's card, 2. VR gameplay 'pitwalk', 3. VR interactive film 'pit360'
	<p>Authors - <i>Name, Surname, Institution, e-mail</i></p> <p>Dr Michał Patyk AGH UST mpatyk@agh.edu.pl</p> <p>Dr Mateusz Sikora AGH UST : sikoram@agh.edu.pl</p>