



Erasmus+
Programme Your Future



COMPUTATIONAL THINKING - LESSON SCRIPT

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Lesson information:	Subject: Biology
	Duration: 2 x 45 minutes
	Grade: 9
	Age: 15
	Topic: Modified hereditary organisms
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The curriculum specifications and requirements:	The Third Stage of Study, Grade IX Pupil will be able to: <ul style="list-style-type: none">● evaluate genetic modification of organisms based on scientific and other important points● describe the areas of genetic engineering and related occupations
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The aims of the lesson:	Pupil: <ul style="list-style-type: none">● knows the possibility of genetic changes in organisms● knows the genetic engineering profession and field of work● is able to critically evaluate GMO information● analyses the ethical problems associated with the genetic transformation of organisms
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Previous knowledge:	Pupil: <ul style="list-style-type: none">● knows relationship of the genes and chromosomes and part of the heredity and inheritance and expression of genes● assesses a part of hereditary and non-hereditary variability on the example of human characteristics
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The forms of work:	<ul style="list-style-type: none">● Pairwork● Groupwork● Individual work● Debate● Roleplay● Work with the workbook
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The methods of work:	<ul style="list-style-type: none">● Presentation● Debate
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	<ul style="list-style-type: none"> ● Discussion ● Using ICT
Teaching aids:	<ul style="list-style-type: none"> ● Internet-connected computer ● Projector ● Computers (tablets) for every student ● Workbooks
The range of using ICT:	<ul style="list-style-type: none"> ● The presentation and communication of information ● Working with the web environment
The course of lesson:	<ol style="list-style-type: none"> 1. Evocation (10 min) <ul style="list-style-type: none"> ○ Informing the aims and objectives of the lesson ○ Watching the topic based video with an attention to the task exercise https://www.youtube.com/watch?v=u2c3dyYpIPY 2. Learning (60 min) <ul style="list-style-type: none"> ○ A presentation https://www.slideshare.net/chryssy/geenitehnoologia ○ A discussion: For or against the Modified hereditary organisms ○ A groupwork: Debate - Pros and cons of genetically modified food. Arguments (WB 2/24). Debate will be formatted(programmed) as a comic strip in Tynker (www.tynker.com) ○ A problem task as a roleplay: <i>Shall we form new organisms?</i> 3. Reflection (20 min) <ul style="list-style-type: none"> ○ Show of comics ○ Individual work: critical evaluation of information in the media – Looking for the articles about GMO, reading and assessing critically, the ethical problems associated with the genetic transformation of organisms
Specific information:	<ul style="list-style-type: none"> ○
Attachments:	<ul style="list-style-type: none"> ○ Video https://www.youtube.com/watch?v=u2c3dyYpIPY ○ A presentation https://www.slideshare.net/chryssy/geenitehnoologia