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## Lesson Plan

<b>Class:</b> A and C	<b>Grade:</b> 8º	<b>Time:</b> 3 lessons (150 ')
<b>Teacher:</b> Alexandra Fernandes		<b>Date:</b> 9/ 01/2017; 11/01/2017; 16/01/2017
<b>Country:</b> Portugal	<b>Subject:</b> Science	
<b>Topic Area:</b> Earth Sustainability (Ecosystems - Influence of light on animals)		
<p><b>Aims:</b></p> <p><b>Inquiry skill focus</b></p> <p>By the end of this lesson students will be able to:</p> <ul style="list-style-type: none"> <li>• Formulate the problem</li> <li>• Develop hypothesis</li> <li>• Plan investigations</li> <li>• Form coherent arguments</li> <li>• Work collaboratively</li> </ul> <p>Scientific reasoning and literacy</p> <ul style="list-style-type: none"> <li>• Scientific reasoning (identifying variables)</li> <li>• Scientific literacy [Explain how light influences animals (rabbits)]</li> </ul>		
<p><b>Aids<sup>1</sup>:</b></p> <ul style="list-style-type: none"> <li>- Engaging situation</li> <li>- Rubric used for the assessment of students' skills</li> <li>- Self-evaluation worksheet</li> </ul>		
<p><b>Procedure:</b></p> <p>Activity development according to Inquiry methodology (theoretical model 5 E's: Engage - Explore - Explain - Extend - Evaluate). The use of research activities in the context of the classroom and their evaluation.</p>		<p><b>Time</b></p> <p>150 min</p>
<p>Warm up/ review:</p> <p><b>Activity A: Planning a investigation</b></p> <p>Step 1: Students are invited to read about rabbit's coat (attachment 1)</p> <p>Step 2: The teacher asks questions to encourage the students to consider how rabbit's coat changes.</p>		<p>5 min</p> <p>5 min</p>

<sup>1</sup> Attach worksheets, Other material used, links to websites...

Step 3: Students first discuss their ideas in small groups, they need to formulate the problem, develop hypotheses, plan investigations)	20 min
Step 4: Teacher gives the result of the planning investigation and students have to formulate a conclusion and decide whether they respond to the problem and whether or not the hypothesis is true.	15 min
<b>Activity B: Preparing a presentation [poster presentation]</b>	
Step 1: Students do an illustrative poster of planned activity.	45 min
<b>Activity C: Presentation</b>	
Step 1: Each group elects a spokesman.	2 min
Step 2: The teacher moderates a debate about the planned investigations.	25 min
Step 3: Students reflect on what they have learned through carrying out the activity.	20 min
<b>Homework:</b> -----	
<b>Evaluation:</b> Within the suggested learning and assessment sequence specific inquiry skills are emphasised for development and assessment. Note, that throughout the activities students will have opportunities to practice a range of inquiry skills not identified in the description.	
<b>Summary 1:</b> Theoretical practical activity: change of coat of the rabbits (definition of problem and hypothesis, planning of experimental activity, presentation of results: preparation of poster).	
<b>Summary 2:</b> Theoretical practical activity: change of coat of the rabbits (preparation of presentation - doing a poster).	
<b>Summary 3:</b> Debate (Discussion of theoretical-practical activity: influence of abiotic factors on the change of coat of rabbits.)	
Evaluation	