



## Investigative project: Evolution

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This class is for students in 4th grade in compulsory education (15 to 16)

It is a 30 hour course and the main aim is create deep curiosity in some aspect in evolution.

All the class material is in English to help the students to realise that the language of science is English so students can improve their English language.

Students have 10 hours hands-on activities to lean about evolutionary concepts

- Life is a fact but what about evolution?
- Did Adam meet Eve?
- Evolving but How?
- Giraffes: Who will survive?
- Why to study evolution?
- Evolution takes the stand

Then they have to choose any questions related with evolution and look for information (10 hours). Examples of questions:

1. Looking for evidence about evolution

2. What is a clone?

- a. Is cloning acceptable?
- b. What could be the benefits of cloning?
- c. Is it OK for sheep, cows or wheat but not for humans?
- d. Would you like to be cloned? What about your favourite pet?

3. Darwin and Wallace presented their work at the Royal Academy in 1850, but at that time viruses and bacteria were unknown. Do you think that there is any relationship between viruses, bacteria and evolution by Natural Selection?

4. Galapagos: then, now and in the future. Go on the expedition

5. Stem cells and evolution.

6. Wallace and Darwin's relationship.

7. Darwin's discoveries during his travels.

8. Comparative genomes in evolution (for example: chimps and gorillas).

9. Sex and evolution

10. Darwin in his time.

11. Emma and Charles Darwin: an interesting relationship.

Finally they organise their information in groups, write an essay and make a presentation in front of the whole class (10 hours more).

It is possible to consult the course activities at:

<http://agora.xtec.cat/iesverdaguer/moodle/course/view.php?id=821&topic=9> /CCNN: Projecte investigació: evolution