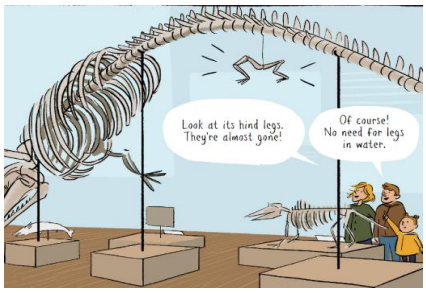
A Science Comic on Evolution Theory: Example of a possible sequence for didactic exploration

First session (about 30 minutes)

- Read the first part of the comics to students up to the below image in Chapter 1.



  - Task 1. Ask students how they can explain the fact that *Pakicetus* has hind legs whereas modern whales do not, to identify the different conceptions they have.

Second session (about 1h30).
Part One

  - Task 2. Ask students to discuss, in groups, some selected answers given by the class (in the previous task). The task is to argue whether or not they agree with the explanations given. Each group works on different explanations. (*Remember to anonymise the answers analysed*).

Examples of explanations given by students:
Example 1: "Its happy, peaceful life has been disrupted by climatic and environmental changes. The *Pakicetus* has therefore had to transform itself and change its habits to continue living."
Example 2: "Little by little, the *Pakicetus* began to learn how to swim, then it developed so that it could live in the water: fins appeared, the tail developed, the limbs (legs) disappeared and useless characteristics were lost. It grew larger to adapt to its needs."

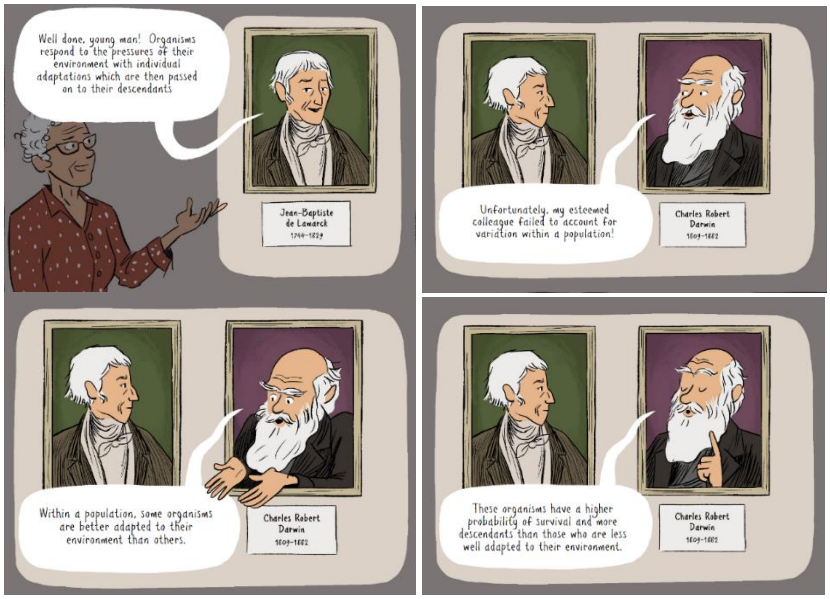
  - Task 3. Each group presents, to the class, the main ideas that emerged from the discussion.

Part 2

- Resume reading the comics, and use certain images to discuss with the class.

Example of images for discussion (see Teachers' version of the episode document for other examples):

Tom's answer corresponds to a conception that is very common. If other explanatory models are present in the students' answers to the first task, you could initiate a debate on the validity of the different models.



This passage highlights the two historical models of Lamarck and Darwin. Students can make the link with their own explanatory model and see how it resembles or differs from the two models proposed. This task also provides an opportunity for a debate on the validity of the two models.

- Task 4. At the end of the session, ask students to imagine that they are part of the story, and to explain to the character in question (in each of the images analyzed) why their idea is not correct. This will show whether students have overcome any difficulties they had.

- Task 5. Finally, ask students to answer the Supertroupers question (see image bellow). This is an opportunity to systematize the work done during all the session.