

Before you teach



Use EvoGrader...**To guide instruction**

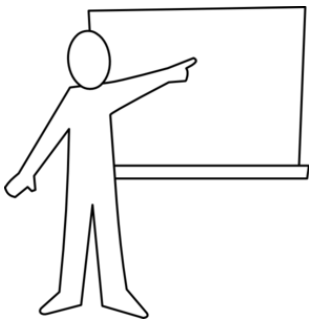
Select two questions *with different contexts* from the ACORNS item database (e.g., a plant loss item, an animal gain item; or an unfamiliar animal and a familiar plant; etc.).

Find out what knowledge and naïve ideas students use when explaining evolutionary change, and plan your class according to what students know.

Find out if students use different types of concepts (scientific and naïve) when explaining change in plants and animals, or trait gain and loss, in familiar and unfamiliar taxa, etc.

Find out what percentage of the class is using similar explanatory models (e.g., pure scientific, mixed, pure naïve).

In your classroom



Use EvoGrader...**To guide active learning activities**

Example 1: Form groups of students based on their responses to pre-assigned ACORNS items (see above). Form groups of students with *different types* of explanatory models (e.g., pure scientific + mixed + pure naïve models). Have students in each group compare and contrast their explanations. Have the group develop a consensus explanation and submit it for credit.

Example 2: Select a set of five student responses from the SAMPLE FILE provided on the EvoGrader website. Have students form groups and discuss which responses are the most scientific and explain why. Then, have students *revise the problematic responses* to make them more scientific. Have the group submit their new explanations for credit.

Example 3: Have students in different groups answer *different* ACORNS questions that have different features (animal, plant, gain, loss, familiar, unfamiliar, etc.). Then have groups do presentations, or move to different groups.

After a lesson or unit



Use EvoGrader...**To determine if instruction produced learning**

Select two parallel questions to your pre-test questions (e.g., if you selected an animal gain and a plant loss question in your pre-test, use parallel questions about animal gain and plant loss in the post-test).

Compare the concepts and models that students used in the pre-test to those in the post-test? Did they change? How much?

Explore whether students can transfer understanding to a new context. For example, if your students did well on a familiar animal loss item, have them try an unfamiliar plant loss item.