

Questions about Evolution

Summary

Students will answer questions about evolution using their prior knowledge. They will calculate the class average response and then either be given correct responses or research correct responses. Students will acknowledge and address misconceptions that they carry about the theory of evolution and its mechanisms.

Main Core Tie

Science - Biology

[Standard 5 Objective 2](#)

Time Frame

3 class periods of 60 minutes each

Group Size

Small Groups

Materials

- [overhead](#)
(attached)
 - [question cards](#)
(attached) These are to be laminated.
 - yarn
 - hole punch
 - calculators
 - scrap paper
 - white board or overhead
- For the research option: textbooks and other resource books, the internet could be used as a possible resource as well

Background for Teachers

Time Needed:

1½ class periods (50 min.) or 2 ½ class periods if allowing for students to research

Student Prior Knowledge

Students need no prior knowledge. This is an introductory activity.

Instructional Procedures

Prior to the Activity:

Make 3 copies of each of the question pages.

Laminate the question pages.

Cut out each question.

Punch a hole in each question and thread a piece of yarn through the hole.

The yarn should be long enough to easily place around the neck of a student.

The Day of the Activity:

As the students walk into the classroom place a question around their neck, with the question

behind them (on their back).

Instruct the students that they are not to read what is on their back and they cannot read to other students what is on his/hers back.

Assure them it is nothing derogatory.

When all students have received their questions instruct them to get out a piece of scratch paper and number down 1-12.

Tell students they have 10 minutes to walk around the classroom and have 12 different people respond to their question (they may need more or less time depending on the nature of your students, monitor to ensure sufficient time is allotted).

They should write the name of the student who answers their question and that students' response to the question.

By the end of the 10 minutes each student should have on their paper, 12 names written and 12 responses to the question on their back.

Ask students to take their seats and remove the questions from around their necks.

Students should then group themselves with those who share their same question.

Ask students to tally the results of their classmates. This is done by either finding a percent "true" and percent "false" or by calculating an average, depending on the nature of the question. To get accurate results make sure students disregard any duplicate names (ie. If a student in the classroom answered the same question multiple times they should only be calculated in the results once).

Have each group write their question on the board and the results they calculated.

You may then choose to lecture on the answers for each and discuss misconceptions.

The other option is to allow the students to research their question and find out the correct answer.

Put overhead up with research requirements and scoring guide.

Students should use their textbook any other resources you may decide to provide to research their questions.

Students should be given enough time to research one class period should be sufficient but some students will find they need to spend some time at home.

Students should then present their findings to the class.

Answers to Questions:

- *What percent of human and ape DNA is identical? At least 98%*
- *We have evidence for evolution. True*
- *Scientists agree on all aspects of evolutionary theory. False*
- *The fossil record supports the theory of evolution. True*
- *Evolutionary theory teaches that humans evolved from apes. False*
- *Mutation is a driving force for evolution. True*
- *Species can change over time. True*
- *Individual organisms can evolve. False*
- *How old is the earth? 4.6 billion years*
- *Evolution cannot be observed. False*
- *Evolution is still occurring. True*
- *Evolution leads to the eventual formation of a perfect organism. False*

Assessment Plan

Scoring Guide:

Students answer a-d thoroughly with detail and evidence of understanding: 25 points

Students find answers to 3 of the 4 parts a-d with detail and understanding or answer a-d correctly

but may lack some detail: 20 points

Students answer 2 of the 4 parts with detail and understanding or answer a-d with mostly correct but some incorrect: 15 points

Students do a poor job and show little effort or complete lack of understanding: 10 points

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)