

Evolution Survey

On your own paper indicate whether each of the following statements is

TRUE or **FALSE**.

You do not necessarily have to agree with the statement for it to be true as you think biologists see it.

Evolution is a scientific fact.

FALSE

- Evolution is NOT a fact...
- It is a theory: a highly probable explanation affecting all biological phenomena, with much supporting evidence and NO evidence against it.

Evolution is a process which involved the origin of life.

FALSE

- Evolution is NOT concerned with the origin of life...
- Only the origin of species.

Evolution is primarily concerned
with the origin of humans.

FALSE

- Evolution is NOT just concerned with the origin of humans...
- No more or less than any other species.

According to evolution, people
came from monkeys a long time
ago.

FALSE

- The fossil record supports observations that populations change (evolve) over time which eventually leads to new species.
- Darwin imagined it might be possible that all life is descended from an original species from ancient times.
- Modern DNA evidence is consistent with this idea.

Conclusion to On the Origin of Species

"There is grandeur in this view of life, with its several powers, having been originally breathed **by the Creator into a few forms or into one**; and that, whilst this planet has gone circling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved."



Common Descent

Evolution was first proposed and explained by Charles Darwin.

FALSE

- Evolution was NOT first explained by Charles Darwin...
- Many other people proposed the general idea long before Darwin did.
 - Robert Hooke (mid 17th century)
 - James Hutton (1785)
 - Erasmus Darwin (1796)
 - Jean-Baptiste Lamarck (1809)

Evolution is also known as
“natural selection”.

FALSE

- Evolution is NOT the same as natural selection...
- Natural selection deals with how evolution can take place; this idea was first proposed by Charles Darwin.

Evolution is something which happened only in the past; it is not happening now.

FALSE

- Evolution is NOT something which happened only in the past...
- It is still going on today.

Evolution is something which happens to individual organisms.

FALSE

- Evolution is NOT something which happens to individuals...
- Evolution happens to populations.

Evolution is a totally random process, a series of “accidents”.

FALSE

- Evolution is NOT an accidental or random process...
- There are built in limits and constraints; it is influenced by both historical circumstances and environmental factors.

There is actually very little
evidence for evolution.

FALSE

- There is a wide range of evidence of evolution that provides a wealth of information on the natural processes by which the variety of life on Earth developed.
 - Fossils
 - Comparative anatomy
 - Comparative embryology
 - Biochemistry

Evolution has been tested and challenged many times, but has always been supported by the results.

TRUE

- There is NO observed evidence against evolution.
- The idea of evolution was developed from many observations of life.
- It has been tested and challenged many times and in many ways and has survived in great shape.
- There are also many independent lines of evidence which are consistent with evolution as a real process.

Science can productively study the past based on evidence, so evolution is a proper subject for science.

TRUE

- Evolution is essentially the idea that new species develop from earlier species by accumulated changes. This is sometimes referred to as “descent with modification.”
- Many who believe in a supernatural creation consider the idea to be an aspect of religious faith compatible with scientific descriptions.

THE SCIENTIFIC METHOD

HERE ARE THE FACTS. WHAT CONCLUSIONS CAN WE DRAW FROM THEM?



THE CREATIONIST METHOD

HERE'S THE CONCLUSION. WHAT FACTS CAN WE FIND TO SUPPORT IT?

