



Science Toolkit: Grade 7 Objective 3.C.1.a

Student Handout: Science: Grade 7 Objective 3.C.1.a

Standard 3.0 Life Science

Topic C. Genetics

Indicator 1. Explain the ways that genetic information is passed from parent to offspring in different organisms.

Objective a. Investigate and explain that in some kinds of organisms, all the genes come from a single parent, whereas in organisms that have sexes, typically half of the genes come from each parent.

Selected Response (SR) Item

Question

Use the information below to answer the following.

Fossils of tree ferns as old as 400 million years have been found in rocks. These ancient ferns lived in swampy, lowland forests and reproduced asexually by producing spores. The ferns were much taller than other plants living at the same time. These extinct tree ferns have modern-day relatives that grow in the tropics.

Today, many tree ferns have a life cycle that now includes a sexual phase as well as an asexual phase. An egg and a sperm unite to form a fertilized egg.

In a fertilized egg, what percentage of the genetic information comes from the sperm?

- A. 25%
- B. 50%
- C. 75%
- D. 100%

Correct Answer

- B. 50%

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