

APOLLO

Cell specialization

HL

Biology

First assessment 2025

6 questions | questions

16. Which term describes very early-stage embryonic stem cells in a mouse?

- A. Totipotent
- B. Pluripotent
- C. Multipotent
- D. Unipotent

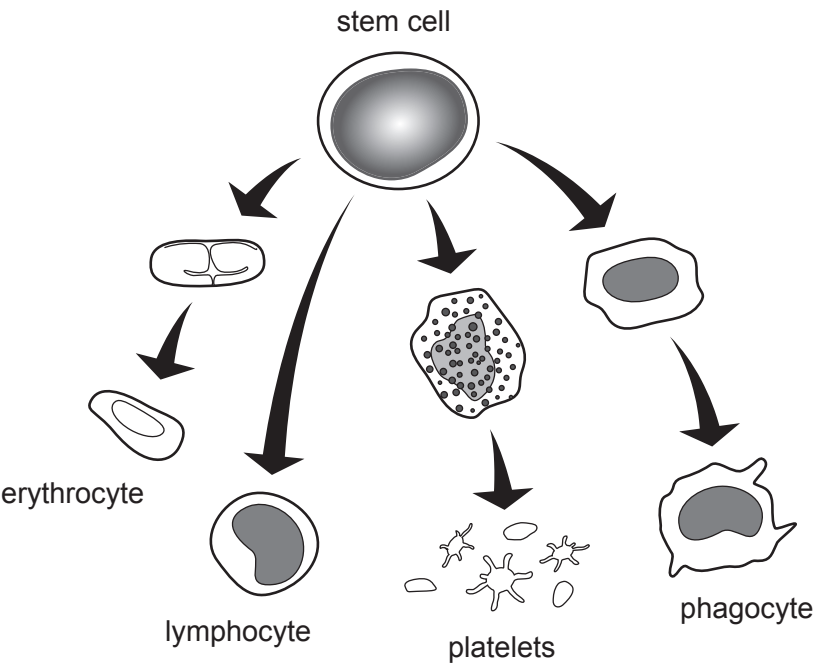
- 16.** What results from an unspecialized cell experiencing gradients of signalling chemicals?
- A. Cell differentiation
 - B. Meiosis
 - C. Saltatory conduction
 - D. DNA replication

- 16.** Which is a description of stem cells?
- A. Hair follicle stem cells are pluripotent.
 - B. Stem cells in bone marrow are multipotent.
 - C. Very early embryo stem cells are pluripotent.
 - D. Late embryo stem cells are totipotent.

- 12.** What is a reason that both phloem sieve tube elements and human red blood cells are considered atypical?
- A. They have no cytoplasm
 - B. Their DNA is free in the cytoplasm
 - C. They do not have a nucleus
 - D. All membrane-bound organelles are missing

Turn over

14. Stem cells can differentiate to produce a variety of cell types in the adult human body.



Which description corresponds to the stem cell in the diagram?

	Type	Location
A.	totipotent	bone marrow
B.	multipotent	bone marrow
C.	totipotent	blood
D.	multipotent	blood

- 16.** In multicellular animals, embryonic stem cells have the ability to differentiate into a range of cells with different functions. What is the term used to describe cells with this property?
- A. Pluripotent
 - B. Multipotent
 - C. Totipotent
 - D. Specialized

Turn over