

Oct 14, 2011

1) Stem Cells

Warm- Up:

Give one reason why human limbs cannot regenerate?

→ Our cells are more specialized than lower level animals.

Specialization and DNA pg 187

The nucleus of every cell has DNA. DNA is made up of the same materials.

Why then do we have different kinds of cells i.e. skin and nerve cells?

Each cell uses different parts of their DNA. They are given orders by different genes.

One example: A skin cell no longer needs information to make skin color. The genes that are not needed are turned off.

Specialization → specific cells using specific parts of your DNA (genetic information) to determine what they will do.

Less specialized cells are accessing larger sections of the genetic information (DNA) to get their function. Less specialized cells can perform many different functions within a less complex organism.



Stem Cells in Humans pg 187

Stem cells are cells with little specialization. They are able to divide many times and they specialize into something like a muscle or nerve cell.

Human skin, bone marrow, contains stem cells. This is why we can grow new skin cells, but not new nerve cells.

Research is being done now on stem cells. They are looking for ways to repair cells that can not be replaced.

Complete the following questions:

Pg 181 #1,2,3
· Pg 183 #1,2
Pg 187 1,2,3,4

