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How Cells Differentiate (Discovery Education in assignments)

What is meant by the term "stem cell?"	
How do nerve cells and blood cells differ?	
How is it possible that a nerve cell will never become a blood cell?	
What causes the cells on the inside of an organism to differ in their growth as compared to cells outside, in direct contact of the environment?	
What is the role of mRNA in cell differentiation?	
What evidence do scientists have to support the idea that DNA can change?	
What is one problem that will need further research in the field of epigenetics (the study of the processes of turning off and on genes)?	

Application: Now that you have an idea of how cell differentiation works, investigate how this process works in organisms other than humans and planaria. Complete the chart below for an organism of your choice. You can write or draw, the choice is yours.

Organism: _____

Growth	Development
Differentiation	Regeneration

*Try googling "Plant growth and development" OR "Regeneration in snakes", etc.