

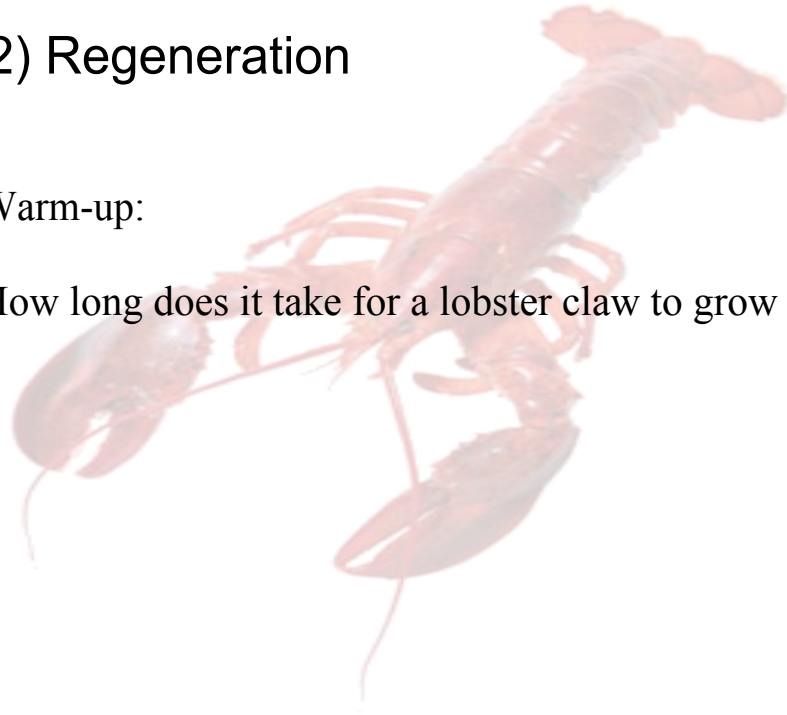
Oct 13, 2011

1) Review Cancer Cells vs normal cells

2) Regeneration

Warm-up:

How long does it take for a lobster claw to grow back?



30 days



Lifestyle and Cancer

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Because cancer cells do not specialize and have no function they take up energy and resources from other cells.

Tumor- rapid cell growth resulting in a mass of cells

Benign- Harmless tumors

Malignant- Dangerous tumors

★ Regeneration Pg 186 ★

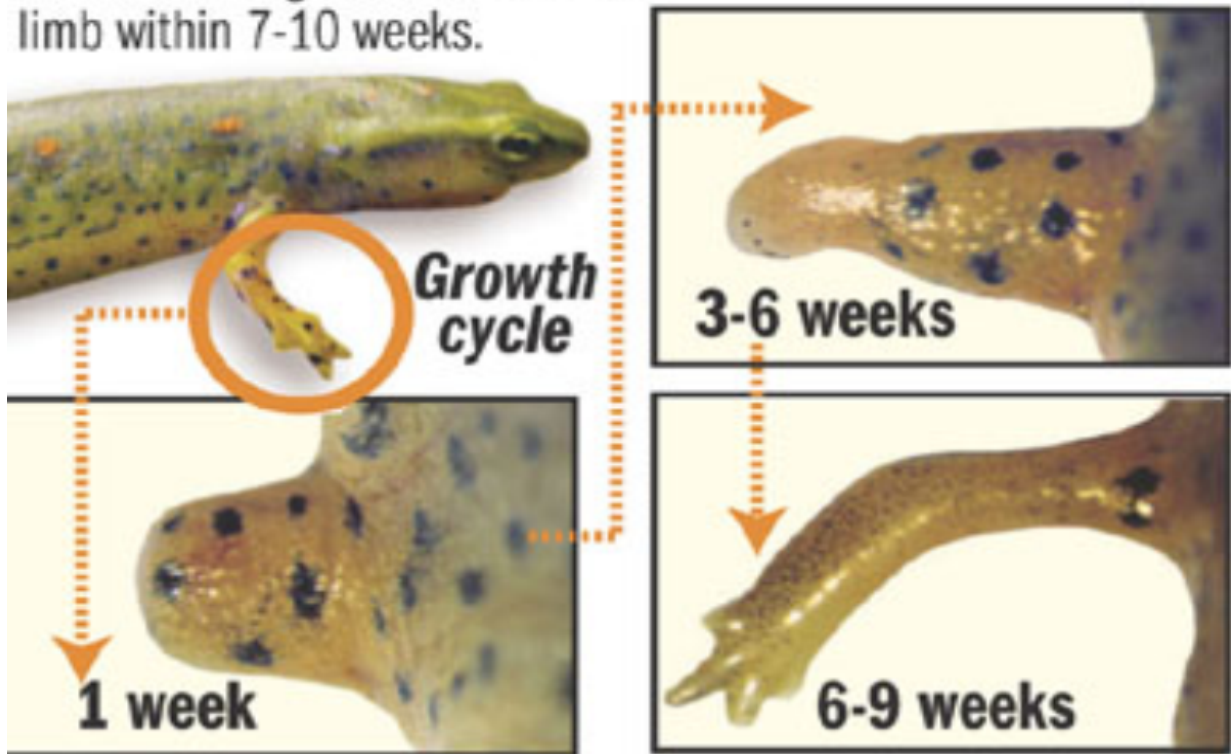
Regeneration is the ability to regrow a part of the body.

Animals with little specialization can regenerate i.e. sponges, planarians(a worm), starfish, newts etc. These animals can regenerate limbs and body parts. Cells in these animals are almost the same no matter where they are found in the body. This means that they only have a few kinds of cells that do certain jobs.



Regenerating a limb

A newt can regenerate an entire limb within 7-10 weeks.



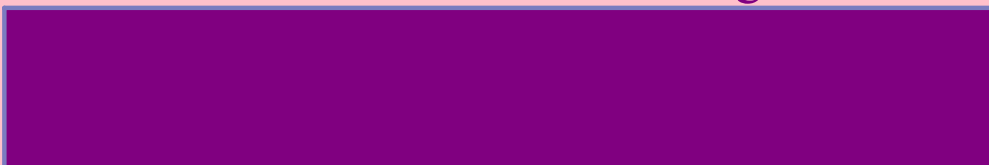
Human Regeneration



What are humans able to re-generate?? Any Ideas??



What are humans not able to re-generate??



Why can humans/other animals regenerate certain parts and not others??

Humans and certain other animals (i.e. earthworms) have many kinds of specialized cells like liver, brain, skin, blood and the list goes on because of this specialization we do not regenerate these cells.



Some of these less complex animals can reproduce asexually through fragmentation. This means that the animal can reproduce when they are cut in half. If a sponge is cut in two pieces, each part will become a new organism.

A salamander is a more complex animal. It can regenerate legs, but can not reproduce through fragmentation.

