

VCC  
Biology 1200  
2021 - hybrid course

Summary of Backchannel links and activities: digestion, circulation and gas exchange, nervous system and senses

The backchannel chat sessions involve students being set tasks (watching videos, reading articles, reading the lectures slides), and answering polling questions afterwards. Also some activities are assigned such as crossword puzzles, jigsaw puzzles, labelling exercises, and interactive games.

## Ch 41 - Digestion

- Metabolic rate, endotherms and ectotherms, temperature regulation strategies: <https://www.khanacademy.org/science/biology/principles-of-physiology/metabolism-and-thermoregulation/a/metabolic-rate>
- How the human digestive system works: <https://www.youtube.com/watch?v=X3TAR0otFfM>

# Chapter 42 – Circulation and Gas Exchange

- Comparison of open and closed circulatory systems:
  - [https://www.youtube.com/watch?time\\_continue=4&v=HZ9Et5TyJXM&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=4&v=HZ9Et5TyJXM&feature=emb_logo)
- How many times has your heart beat since you were born?
  - <https://www.sciencelearn.org.nz/resources/1927-heartbeat-calculator>
- Label the heart: [https://www.sciencelearn.org.nz/labelling\\_interactives/1-label-the-heart](https://www.sciencelearn.org.nz/labelling_interactives/1-label-the-heart)
- Capillary fluid exchange: <https://www.thoughtco.com/capillary-anatomy-373239>
- Blood clotting: <https://www.youtube.com/watch?v=PjhHQHMnMjl>

- Fish gills: [https://www.youtube.com/watch?v=-n65XN-8\\_n8](https://www.youtube.com/watch?v=-n65XN-8_n8)
- Bird breathing: <https://www.youtube.com/watch?v=kWMMmyVu1ueY>
- Khan academy review of circulatory and respiratory systems: <https://www.khanacademy.org/science/high-school-biology/hs-human-body-systems/hs-the-circulatory-and-respiratory-systems/a/hs-the-circulatory-system-review>

## Chapter 48 – The Nervous System

- Glial cells: <https://www.youtube.com/watch?v=7k5ca2UeLqI>
- Action potentials: [https://www.youtube.com/watch?v=W2hHt\\_PXe5o](https://www.youtube.com/watch?v=W2hHt_PXe5o)
- Sympathetic and parasympathetic divisions: [https://www.youtube.com/watch?v=D96mSg2\\_h0c](https://www.youtube.com/watch?v=D96mSg2_h0c)
- Optical illusions: <https://www.youtube.com/watch?v=rfdJyDfIHlc>
- Brain crossword: <https://crosswordlabs.com/view/the-brain-and-cranial-nerve-4>
- Interactive brain model: <https://www.brainfacts.org/3d-brain#intro=true>

# Chapter 50 - The Senses

- Weird animal senses: <https://www.wired.com/2016/06/weirdest-senses-animals-humans-dont/>
- Evolution of the eye: [https://www.youtube.com/watch?v=qrKZBh8BL\\_U](https://www.youtube.com/watch?v=qrKZBh8BL_U)
- Coolest eyes in the animal kingdom: <http://thescienceexplorer.com/nature/12-coolest-eyes-animal-kingdom>
- Eye jigsaw puzzle: <http://www.anatomyarcade.com/games/jigsaws/EyeJigsaw/eyeJigsaw.html>
- Sensory transduction of the eye: <https://www.youtube.com/watch?v=dhd2fja0LZ4>
- Colour blindness: <https://www.colormatters.com/color-and-vision/what-is-color-blindness>
- The interactive ear: <https://www.amplifon.com/uk/interactive-ear/index.html>