

# 9. Locomotion - Blood and Respiratory Media

Marguerite Butler

2023-10-30

## Pre-class materials

**i** Read ahead

Before class, you can prepare by reading the following materials:

1. We did get a bit behind, so Monday and Wednesday we will finish [[locomotion](#)]
2. Wednesday and Friday we will move on to blood and respiratory media
3. Lab this week is on [[toad muscle](#)]. Pay attention to refining your prelab.
4. Think hard about a **hypothesis for your independent toad muscle** lab next week.

## Announcements/Reminders

- Due Monday Homework 5 [[schedule](#)]
- Halloween Extra Credit - come dressed up, stop by lab on Tuesday (or Monday)
- Do discussion TEAMMATES eval, released each Friday, due by Monday.
- Getting to the end, folks!

## Week 11 Discussion Groups

Group	Partner 1	Partner 2	Partner 3
1	Justin	Kirsten	Mayuka
2	Logan M	Richard	Christina
3	Matthew	Morgan	Adry
4	Sasha	Logan B	Alvin
5	Anna	Krystal	Garrett

Group	Partner 1	Partner 2	Partner 3
6	Maisie	Kylie	

## Monday and Wednesday

- Finish Biomechanics and Locomotion [[discussion](#)] [[slide deck 1](#)]
  - Support vs. Locomotion
  - Material properties and functional design
    - \* stress and strain
    - \* posture
  - Muscle architecture
  - Lever arms and gear ratios
- Terrestrial Locomotion [[discussion](#)] [[slide deck 2](#)]
  - Cursorial adaptations
  - Trends in posture
  - Limb cycles and gaits (kinematics)
  - Ground reaction forces and joint forces (biomechanics)
  - Conservation of energy in running, walking jumping

<https://youtu.be/YlyaASmy-1E>

## Friday

<https://youtu.be/t0Vf-RJleCE>

- Blood and Respiratory Media [[discussion](#)] [[slide deck](#)] [[slide deck2](#)]

## For Next Time

- Homework 6 Respiration Friday 11/10 [[schedule](#)]

**i** Reminders and materials