

Homeostasis - Unit

- 4-5 weeks of teaching material
- 7 Lessons in Office and Google Format
- 9 Activities
- 1 Unit Test & 3 Quizzes

Lesson 1 - Homeostasis

Lesson 2 - Thermoregulation

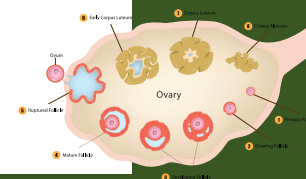
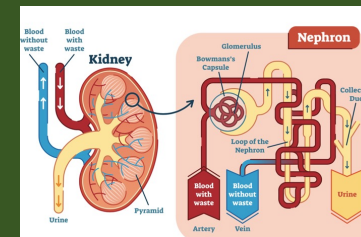
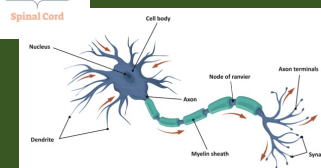
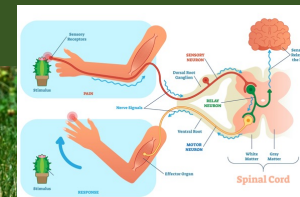
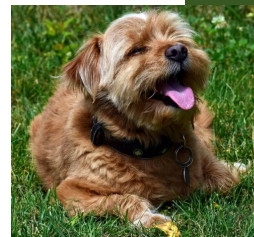
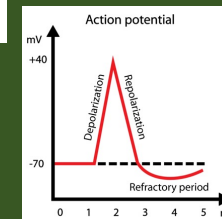
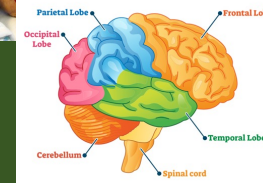
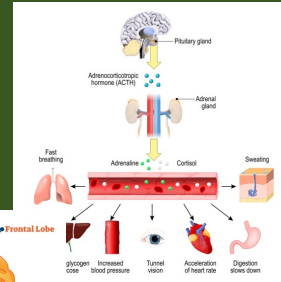
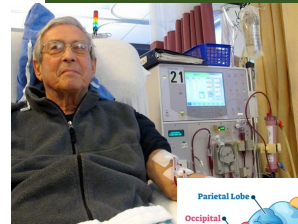
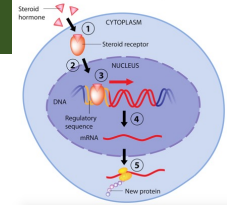
Lesson 3 - The Urinary System

Lesson 4 - The Endocrine System

Lesson 5 - The Nervous System - Anatomy

Lesson 6 - The Nervous System - Signal Transmission

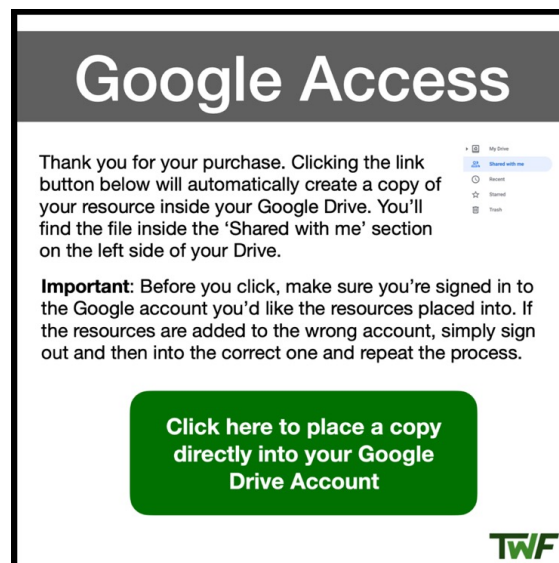
Lesson 7 - The Human Reproductive Systems



TWF

Office and Google Versions

- The lessons inside this unit come in both PowerPoint and Google Slides format
- Each lesson also contains an Exit Ticket that you can use to check for student understanding
- Your resource is perfect for distance learning and integrates seamlessly with Google Classroom as I've included a link that will automatically create a copy of the resources and put them directly into your Google Drive with one click



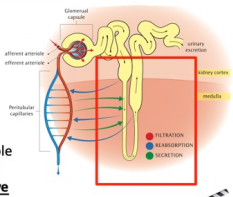
Thank you for your interest

Inside the Unit

- 5 weeks of teaching material
- 9 lessons
- Office and Google versions of EACH lesson
- Teacher and student versions for each lesson
- Many videos and simulations embedded into the slides
- Student notes in Word and Google Doc

Reabsorption – Loop of Henle

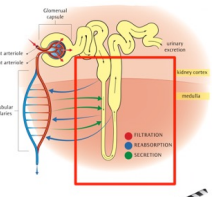
- Descending:
 - Water travels out into blood by osmosis
 - Salt (NaCl) is becoming concentrated in loop
- Ascending:
 - NaCl is removed
 - Thin section is permeable (diffusion due to [high])
 - Thick section uses active transport to get rid of the salt



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Reabsorption – Loop of Henle

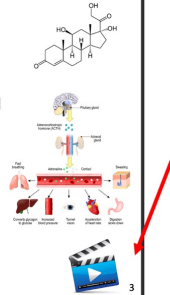
- Descending:
 - Water travels out into blood by osmosis
 - Salt (NaCl) is becoming concentrated in loop
- Ascending:
 - NaCl is removed
 - Thin section is permeable (diffusion due to [high])
 - _____



3

Cortisol

- Produced in the adrenal gland
- Also contributes to fight or flight
- Released in response to stress and a low level of blood glucose
- Its primary functions are to:
 1. increase blood glucose through gluconeogenesis
 2. suppress the immune system
 3. aid in fat, protein, and carbohydrate metabolism



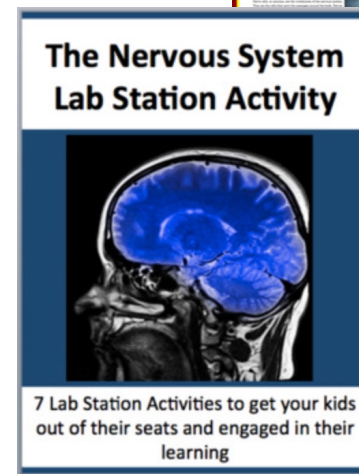
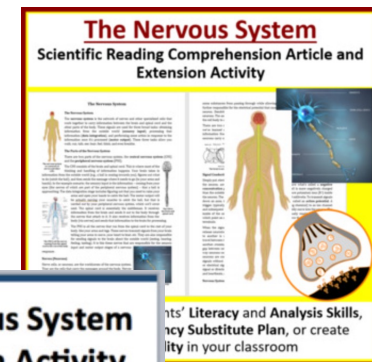
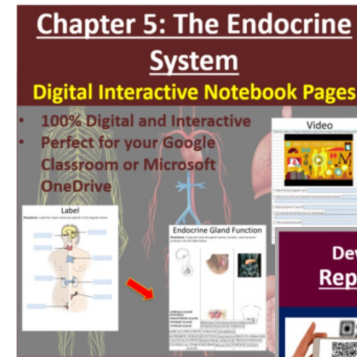
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Videos embedded directly into the slides. One-click access.

Thank you for your interest

Inside the Unit

- 1 Unit Test and 3 Quizzes
- The Nervous System - Lab Station Activity
- Reproductive Technologies - Lab Station Activity
- Thermoregulation - Lab Station Activity
- Reproductive Technologies - Digital Scavenger Hunt
- Nervous System – Reading
- Endocrine, Excretory, Nervous, and Reproductive System Digital Interactive Notebook Pages



Thank you for your interest

The following lessons are included.
Please click to preview.

[Lesson 1 - Homeostasis](#)

[Lesson 2 - Thermoregulation](#)

[Lesson 3 - The Urinary System](#)

[Lesson 4 - The Endocrine System](#)

**[Lesson 5 - The Nervous System -
Anatomy](#)**

**[Lesson 6 - The Nervous System -
Signal Transmission](#)**

**[Lesson 7 - The Human Reproductive
Systems](#)**

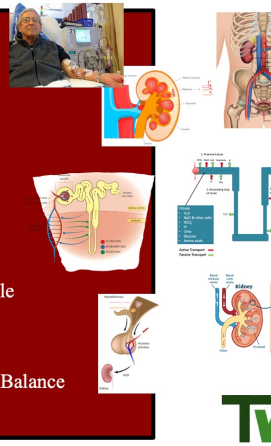
Homeostasis

- Homeostasis
- Homeostatic control systems have 3 parts:
 - Sensor
 - Integrator
 - Effector
- Negative Feedback
- Positive Feedback
- Examples including
 - Thermoregulation, removing wastes/toxins



The Urinary System

- The Kidney
- The Bladder
- The Nephron
- Formation of Urine
- Reabsorption
 - Proximal Tubule
 - Loop of Henle
 - Distal Tubule
 - Collecting Duct
- Secretion – Distal Tubule
- Water Balance
- ADH
- Blood Pressure and pH Balance
- Kidney Disease



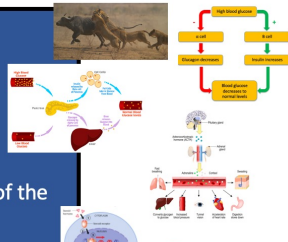
Thermoregulation

- Regulating Body Temperature
- Ectotherms
- Endotherms
- Metabolic Response to External Temperatures
- Responses to Cold and Heat
- Hypothalamus
- Torpor



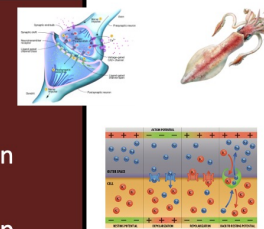
The Endocrine System (Chemical Control System)

- Hormones
 - Steroid Hormones
 - Protein Hormones
- Negative feedback
- The Pituitary Gland
- Posterior and Anterior Lobe of the Pituitary
- Metabolism and Thyroid
- T₄
- Blood Sugar and the Pancreas
- Stress and adrenaline
- Cortisol



The Nervous System – Signal Transmission

- Neural Transmission
- Potential Difference
 - Resting Potential, Depolarization, Action Potential, Repolarization
- Membrane Channels
- Sodium/Potassium Pump
- Synaptic T
- Neurotran Functions
- Synapse Ir



The Nervous System Anatomy

- Vertebrate Nervous System
- CNS & PNS (Somatic and Autonomic)
- The Spinal Cord
- The Parts of the Brain
- Cells of the Nervous System
- Cell Division
- Neuron Anatomy
- Neuron Support System
- Reflex Arc



The Reproductive System

- The Reproductive Hormones
- The Male Reproductive System
- Spermatogenesis
- LH, FSH and Negative Feedback
- The Female Reproductive System
- The Ovarian Cycle
- The Menstrual Cycle
- LH, FSH, Estrogen and Progesterone
- Controlling Reproduction
- Puberty

