

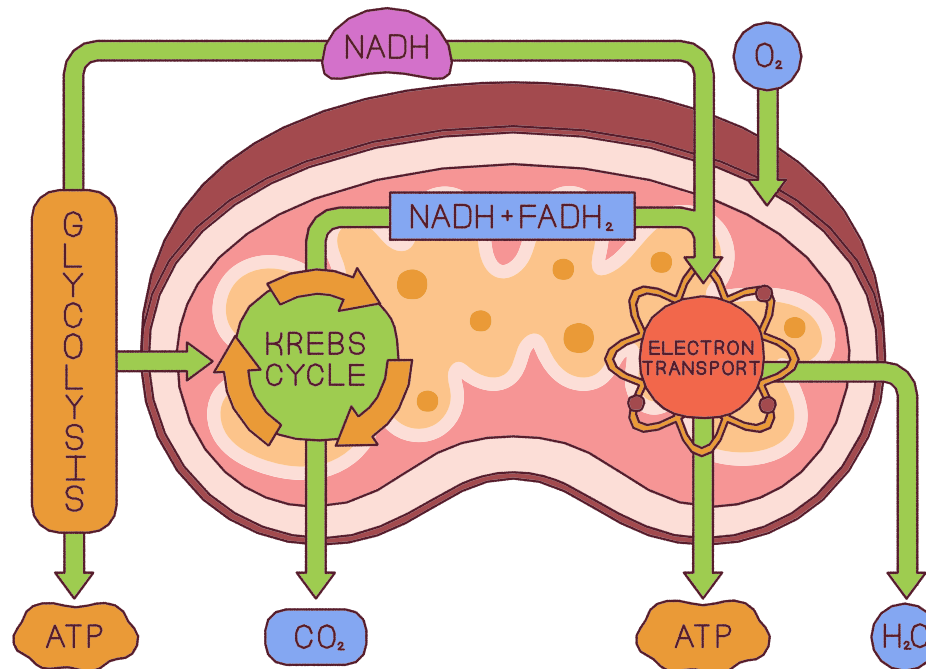
NGSS HS-LS1-7

Curriculum Bundle

Cellular Respiration Model: Energy Transfer

✓ 3 Lessons and 5 Activities

✓ Everything You Need to Teach NGSS HS-LS1-7

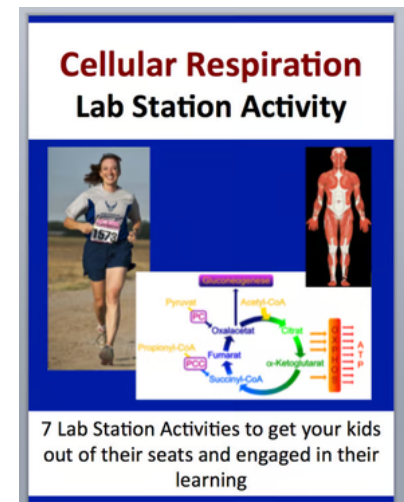
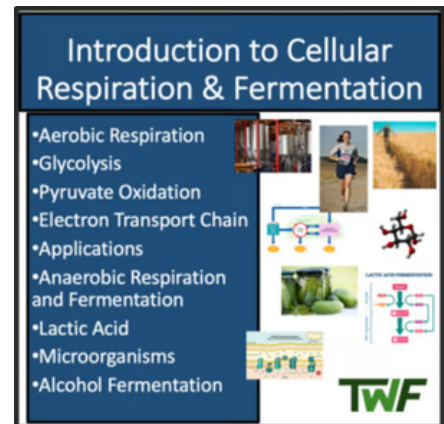
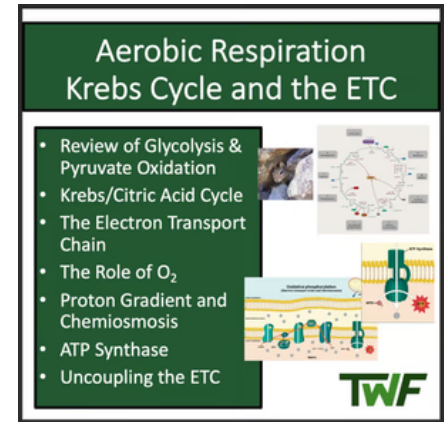


Resources Included

✓ 3 Lessons

✓ 5 Activity

- Introduction to Cellular Respiration and Fermentation – Lesson
- Efficiency and Regulation of Cellular Respiration – Lesson
- Krebs Cycle and ETC – Lesson
- Krebs Cycle - Worksheet
- Cellular Respiration - Lab Station Activity
- Exercise and its Importance for Health – Reading
- Clothespins and Muscle Fatigue – Activity
- Cellular Respiration Do Cells Breathe - Video Worksheet



UPGRADE to the Bundle

CLICK HERE



This Bundle:

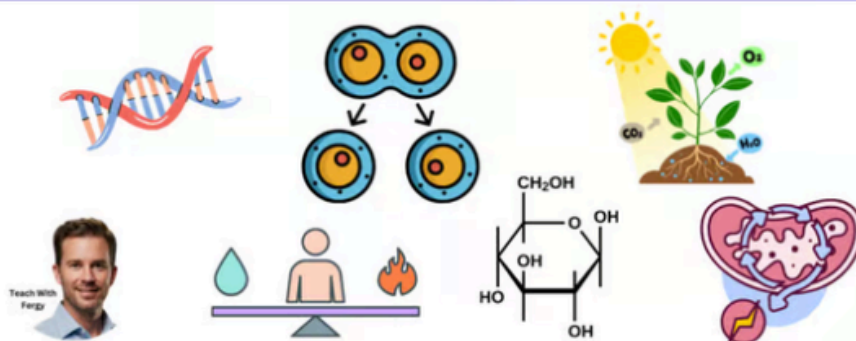
- ✓ Covers the entire NGSS HS-LS1 Standard
- ✓ Includes Many Lessons, Activities, Projects, and More
- ✓ Is No Prep & Fully Editable

NGSS HS-LS1

**Molecules to Organisms:
Structures & Processes**

Full Standard BUNDLE

- ✓ Everything You Need to Teach NGSS HS-LS1
- ✓ Lessons, Activities, Labs, Projects, and more
- ✓ HS-LS1-1, LS1-2, LS1-3, LS1-4, LS1-5, LS1-6, LS1-7



Everything You Need to Teach NGSS HS-LS1-7

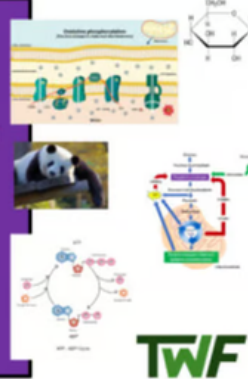
Introduction to Cellular Respiration & Fermentation

- Aerobic Respiration
- Glycolysis
- Pyruvate Oxidation
- Electron Transport Chain
- Applications
- Anaerobic Respiration and Fermentation
- Lactic Acid
- Microorganisms
- Alcohol Fermentation



Efficiency and Regulation of Cellular Respiration

- How much ATP do we make?
- The Efficiency of Aerobic Respiration
- Metabolic rates
 - BMR
- Regulating Cellular Respiration
- Alternatives to Glucose



Aerobic Respiration Krebs Cycle and the ETC

- Review of Glycolysis & Pyruvate Oxidation
- Krebs/Citric Acid Cycle
- The Electron Transport Chain
- The Role of O₂
- Proton Gradient and Chemiosmosis
- ATP Synthase
- Uncoupling the ETC



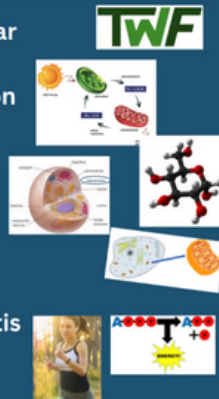
Exercise and its Importance for Health - Scientific Reading Comprehension Article



Improve your students **Scientific Literacy** and **Analysis Skills**, use as an **Emergency Substitute Plan** or create **Applicability** in your classroom

Cellular Respiration

- Energy and ATP – Cellular Currency
- What Cellular Respiration is
- Glucose and Cellular Respiration
- Mitochondria
- Application – Exercise
- Application – Cyanide
- Application – Rigor Mortis
- Photosynthesis and Cellular Respiration



Crash Course Biology 2.0 #27: Cellular Respiration: Do Cells Breathe?

- ✓ Classroom Ready - Just Print and Go!
- ✓ Active Engagement - Keep Students' Attention
- ✓ Direct Video Link Included

[WATCH VIDEO](#)



Includes Student Copy and Answer Keys

Cellular Respiration Lab Station Activity



7 Lab Station Activities to get your kids out of their seats and engaged in their learning

The Standard is Explained and the Resources it Incorporates are Outlined

HS LS1 From Molecules to Organisms: Structures and Processes

HS-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. [Clarification Statement: Emphasis is on the conceptual understanding of the inputs and outputs of the process of cellular respiration.] [Assessment Boundary: Assessment should not include identification of the steps or specific processes involved in cellular respiration.]

Resources:

- Introduction to Cellular Respiration and Fermentation – Lesson
- Efficiency and Regulation of Cellular Respiration – Lesson
- Krebs Cycle and ETC – Lesson
- Krebs Cycle - Worksheet
- Cellular Respiration - Lab Station Activity
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Aerobic Respiration Krebs Cycle and the ETC

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TWF

Introduction to Cellular Respiration & Fermentation

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- Lactic Acid
- Microorganisms
- Alcohol Fermentation



TWF

Cellular Respiration Lab Station Activity



7 Lab Station Activities to get your kids out of their seats and engaged in their learning

Who is this Bundle for?

- **Teachers who teach High School science and use the NGSS**
- **Teachers who want multiple resources at their fingertips including lessons and a variety of activities, in order to meet the standard**
- **Teachers who don't have time to develop their own resources or organize what to teach and when**