

What we will cover and what we will be doing in this workshop

This workshop meets twice and will focus on a brief review of the **Biology** content tested on the TEAS 7. The goal of the workshop is to provide an overview of the bio content to support your preparation for the exam.

We will focus on concept review with some question practice. We will utilize a combination of Power Points, Lumen Learning for Biology, NIH Library of Medicine, Open Stax microbiology e-book and KLC produced study guides to review the content. Consider purchasing or borrowing a TEAS workbook which will have summaries of important content and practice questions. Here are links to all the resources we will use in the workshop.

<https://courses.lumenlearning.com/wm-nmbiology1/>

<https://www.ncbi.nlm.nih.gov/books/NBK27114/>

<https://openstax.org/details/books/microbiology>

<https://www.kbcc.cuny.edu/KLC/TutoringResources.html>

The science portion of the TEAS covers (50 questions, 60 minutes)

- Chemistry (9 questions)
- Anatomy and Physiology (18 questions)
- **Biology** (9 questions)
- Scientific reasoning (9 questions)

**** There are several additional questions on the TEAS 7 Science section that are not part of your score. They are not graded. These questions are on the test because they are being tested for future exams.

The **biological concepts** and processes tested on the TEAS include (9 questions on the exam)

- Cell structure, function, organization
- Relationship between DNA and the structure of protein
- Structure and function of macromolecules in biological systems
- Concept's underlying Mendel's laws of inheritance
- The role of microorganisms in disease

Here is a breakdown of the topics for this week and next week. This bulleted list represents the TEAS **biology topics** in more detail. There is some overlap with Bio and A&P but it is not 100%. This means there are biological concepts on the TEAS that are not covered in Bio 11 and 12. Remember 9 bio questions, 18 A&P questions, 9 chem questions and 9 scientific reasoning questions. Good preparation will require efficient and effective review of all the science content areas covered on the exam. Make a study plan and stick to it.

May 10th and 17th (<https://courses.lumenlearning.com/wm-nmbiology1/>) (use this link for more info on topics)

- Biological classification, taxonomy, cell theory
- Prokaryotes versus eukaryotes
- Cellular respiration and photosynthesis
- Mitochondria and chloroplast
- Cell structure, function, organization
- Structure and function of macromolecules in biological systems
- Relationship between genetic material and the structure of protein
- Mitosis and meiosis
- Concepts underlying Mendel's laws of inheritance, Punnett squares
- Role of microorganisms in disease <https://www.ncbi.nlm.nih.gov/books/NBK27114/>

<https://openstax.org/details/books/microbiology>

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Keep in mind that the Biology section is 9 questions out of 50 questions on the TEAS 7 Science section.

Here are some TEAS 7 science prep you tube videos that are really well organized and presented

<https://www.youtube.com/watch?v=pbDz4C0xA8M>

<https://www.youtube.com/watch?v=wjYtmd-NAi4>

<https://www.youtube.com/watch?v=y-dSO-zsSFI>

<https://www.youtube.com/watch?v=AOQ43-o7WMc>

<https://www.youtube.com/watch?v=btMEFm-mWy8> (step by step review of questions)

<https://www.youtube.com/watch?v=6BZsusLpKH8> (sense versus antisense, 5'--→3' transcription)

This section has some links for content review for A&P which are not covered in this workshop

Physiology is the study of the functions of the body. Anatomy and physiology, although technically discrete and different bodies of knowledge, anatomy, and physiology are closely aligned with each other. For example, the anatomy of cardiac muscles enables the physiological performance of the heart to fulfill the body's physical need for blood flow and oxygenation and the anatomy of the digestive system enables the person to consume food and process foods so that the physical need for nutrition is fulfilled.

Some of the major physical needs of the body that are fulfilled with the body's physiology and its physiological functioning are the need for:

- Homeostasis and bodily equilibrium
- Oxygenation
- Elimination
- Nutrition
- Fluid balance
- Protection
- Movement and activity
- Freedom from external threats (infection)
- The five senses
- Reproduction
- Growth

In the A&P section of the TEAS 7, you are expected to be able to describe the following:

- [General Anatomy and Physiology of a Human](#)
- [Respiratory System](#) – Blood flow
- [Cardiac System](#) – Oxygenation, blood flow
- [Circulatory System](#) – Blood flow
- [Digestive or Gastrointestinal System](#) – Nutrition, elimination
- [Nervous System](#) – Sensory perception, voluntary & involuntary movements
- [Musculoskeletal System – Skeletal](#) – Movement, activity, protection
- [Musculoskeletal System – Muscular](#) – Same as Skeletal
- [Reproductive System](#) – Reproduction, growth
- [Integumentary System](#) – Temperature regulation, bodily protection
- [Endocrine System](#) – Growth, metabolism, fluid balance

- [Genitourinary System](#) – Rids waste, fluid management, and control
- [Immune System](#) – Protection against infection
- [Hematological System](#) – Protection against infection, oxygenation w/ red blood cells

Life and Physical Sciences:

In this section of the TEAS 7 exam, you are expected to be able to:

- [Basic Macromolecules in a Biological System](#)
- [Chromosomes, Genes, and DNA](#)
- [Mendel's Laws of Heredity](#)
- [Basic Atomic Structure](#)
- [Characteristic Properties of Substances](#)
- [Changing States of Matter](#)
- [Chemical Reactions](#)

Click on the **link** below to access KLC created study guides for Bio 11&12, Bio 13&14, and Bio 51

<https://www.kbcc.cuny.edu/KLC/TutoringResources.html>

You will also find the **Power Points** used during the workshop in the TEAS prep section here

<https://www.kbcc.cuny.edu/KLC/TutoringResources.html>

**** note**

These bio workshops were not recorded.