

**HOMEWORK #15**

This assignment is due at the start of the class band on \_\_\_\_\_.

- A. Watch the following online video: “BrainPOP: Photosynthesis” (see your teachers for password)  
<https://www.brainpop.com/science/cellularlifeandgenetics/photosynthesis>
- B. Read Miller & Levine (textbook) pp. 192–196 and answer the following question in **complete sentences** on a **separate sheet of paper**. You may type or neatly handwrite your answers.

Explain the importance of photosynthesis to organisms. In your answer, be sure to:

- identify the organelle where photosynthesis occurs in cells
- write the chemical reaction for photosynthesis
- identify *two* raw materials necessary for photosynthesis
- identify *two* products that result from photosynthesis
- identify *one* energy-rich molecule that is produced during photosynthesis
- state how organisms use the energy-rich molecule that is produced
- state how a gas produced by this process is recycled in nature

**HOMEWORK #16**

This assignment is due at the start of the class band on \_\_\_\_\_.

- A. Watch the following online video: “Guard Cells: Homeostasis”  
<https://vimeo.com/189864734>
- B. Read Miller & Levine (textbook) pp. 564–565 and answer the following question in **complete sentences** on a **separate sheet of paper**. You may type or neatly handwrite your answers.

Guard cells are found on the lower surfaces of leaves of many plants. Explain how guard cells in plants help to maintain homeostasis. In your answer, be sure to:

- identify *one* function regulated by guard cells
- explain how guard cells carry out this function
- sketch a diagram of the guard cells during the day and at night
- define the term *homeostasis*
- explain how the activity of the guard cells is an example of homeostasis

**HOMEWORK #17**

This assignment is due at the start of the class band on \_\_\_\_\_.

- A. Watch the following online video: “BrainPOP: Cellular Respiration” (see your teachers for password)  
<https://www.brainpop.com/science/cellularlifeandgenetics/cellularrespiration>
- B. Read Miller & Levine (textbook) pp. 212–215 and answer the following question in **complete sentences** on a **separate sheet of paper**. You may type or neatly handwrite your answers.

Respiration is a life function required by all living things. Discuss the process of respiration. Be sure to:

- define the term *respiration*
- identify the organelle where respiration occurs in cells
- write the chemical reaction for respiration
- identify *two* raw materials necessary for respiration
- identify *two* products that result from respiration
- identify *one* energy-rich molecule that is produced during respiration
- state how organisms use the energy-rich molecule that is produced
- state how a gas produced by this process is recycled in nature

**HOMEWORK #18**

*This assignment is due at the start of the class band on \_\_\_\_\_.*

- A. Watch the following online video: “BrainPOP: Climate Change” (see your teachers for password)  
<https://www.brainpop.com/science/earthsystem/climatechange>
- B. Watch the following online video: “BrainPOP: Nuclear Energy” (see your teachers for password)  
<https://www.brainpop.com/science/energy/nuclearenergy>
- C. Read Miller & Levine (textbook) pp. 143–149 and answer the following questions in **complete sentences** on a **separate sheet of paper**. You may type or neatly handwrite your answers.
1. Currently, Americans rely heavily on the burning of fossil fuels as sources of energy. Nuclear power is sometimes used as an alternative to burning fossil fuels. Discuss fossil fuels and nuclear sources of energy. In your answer:
    - identify *one* specific pollutant that is released during the burning of fossil fuels
    - state *one* way that this pollutant harms our environment
    - state *one* advantage to using nuclear sources of energy
    - state *one* disadvantage to using nuclear sources of energy
  2. Explain why damage to the ozone layer threatens organisms and ecosystems. In your answer:
    - identify one specific pollutant that contributes to the depletion of the ozone layer
    - state *one* reason why damage to the ozone layer is considered a threat to many organisms

**HOMEWORK #19**

*This assignment is due at the start of the class band on \_\_\_\_\_.*

- A. Watch the following online video: “BrainPOP: Humans & Environment” (see your teachers for password)  
<https://www.brainpop.com/science/ourfragileenvironment/humansandtheenvironment/>
- B. Watch the following online video: “BrainPOP: Natural Resources” (see your teachers for password)  
<https://www.brainpop.com/science/ourfragileenvironment/naturalresources>
- C. Read Miller & Levine (textbook) pp. 132–142 and answer the following questions in **complete sentences** on a **separate sheet of paper**. You may type or neatly handwrite your answers.
1. Our national parks are areas of spectacular beauty. Current laws usually prohibit activities such as hunting, fishing, logging, mining, and drilling for oil and natural gas in these areas.
    - choose *one* of these activities
    - state *one* way that activity could harm the environment
    - state *one* way allowing the activity you selected will benefit society
  2. State *one* specific activity that you as a student can take in your community to help maintain or increase biodiversity.

*Mark your calendar...*

**The tentative dates for the Final Exam are**

**Monday, June 5, 2017 and Wednesday, June 7, 2017**

*Extra credit coupons are due on the day of the Final Exam.*

**The Living Environment Regents Exam is Wednesday, June 14, 2017 at 12:30 p.m.**