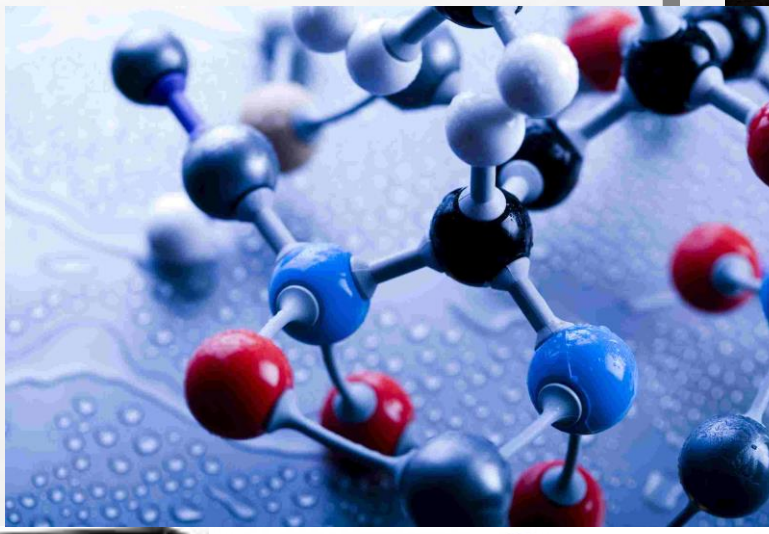
WELCOME BACK

PRE-AP BIOLOGY

MS. BEDFORD

- BORN & RAISED HERE (FAIRFAX)
- STUDIED BIOLOGY AT VIRGINIA TECH
- STUDIED EDUCATION AT GEORGE MASON
- 8TH YEAR TEACHING (ALL AT OP)

PRE-AP BIOLOGY



UNITS OF STUDY:

- Intro to Biology
- Biochemistry
- Cells (structure, transport, energy & division)
- Nucleic acids & protein synthesis
- Genetics
- Evolution & classification
- Ecology
- Diversity of life

GRADING

- ASSESSMENTS = 90%
  - TESTS = 2X
  - LABS/PROJECTS/QUIZZES = 1X
- CLASSWORK = 10%

Work is accepted until the day of the unit test

Unit 1 Map - Introduction to Biology

Biology 1: PreAP

Topic	Specific Learning Target	Questions on Test	Quiz Score %	Test Score %
1. Characteristics of Life	A. I can identify and provide examples of the characteristics found in all living organisms.	7		
2. Lab Safety	B. I can distinguish between safe and unsafe lab procedures and use safe lab procedures during experiments.	5		
	C. I can locate and use safety equipment in the classroom.	0		
3. Scientific Method	D. I can collect both qualitative and quantitative observations.	1		
	E. I can distinguish between observations and inferences.	5		
	F. I can identify reliable sources for scientific research.	1		
	G. I can create testable hypotheses predicting cause and effect relationships (i.e. in an "If, then" format) using observations and information from other scientists.	3		
	H. I can identify the independent variable and the levels of the independent variable that will be used in an experiment.	2		
	I. I can identify the dependent variable and the method you will use to measure the dependent variable in an experiment.	3		
	J. I can identify variables that must be held constant in an experiment.	1		
	K. I can distinguish between the control group and experimental group in an experiment and explain the purpose of a control group.	1		
4. Data Analysis	L. I can record quantitative data in clearly labeled tables/charts with units.	4		
	M. I can choose the appropriate graph (i.e. line graph, bar graph, pie graph) to organize your data and use this graph to show a relationship between the independent and dependent variable.	0		
	N. I can identify and discuss trends in the data based on your charts and graphs. (Ex: an increase in the amount of physical activity appears to cause an increased production of sweat).	6		

If a student completes this map, puts their name on it, and turns it in at the end of the unit (post-test), lower quiz scores will be replaced with the higher test score.

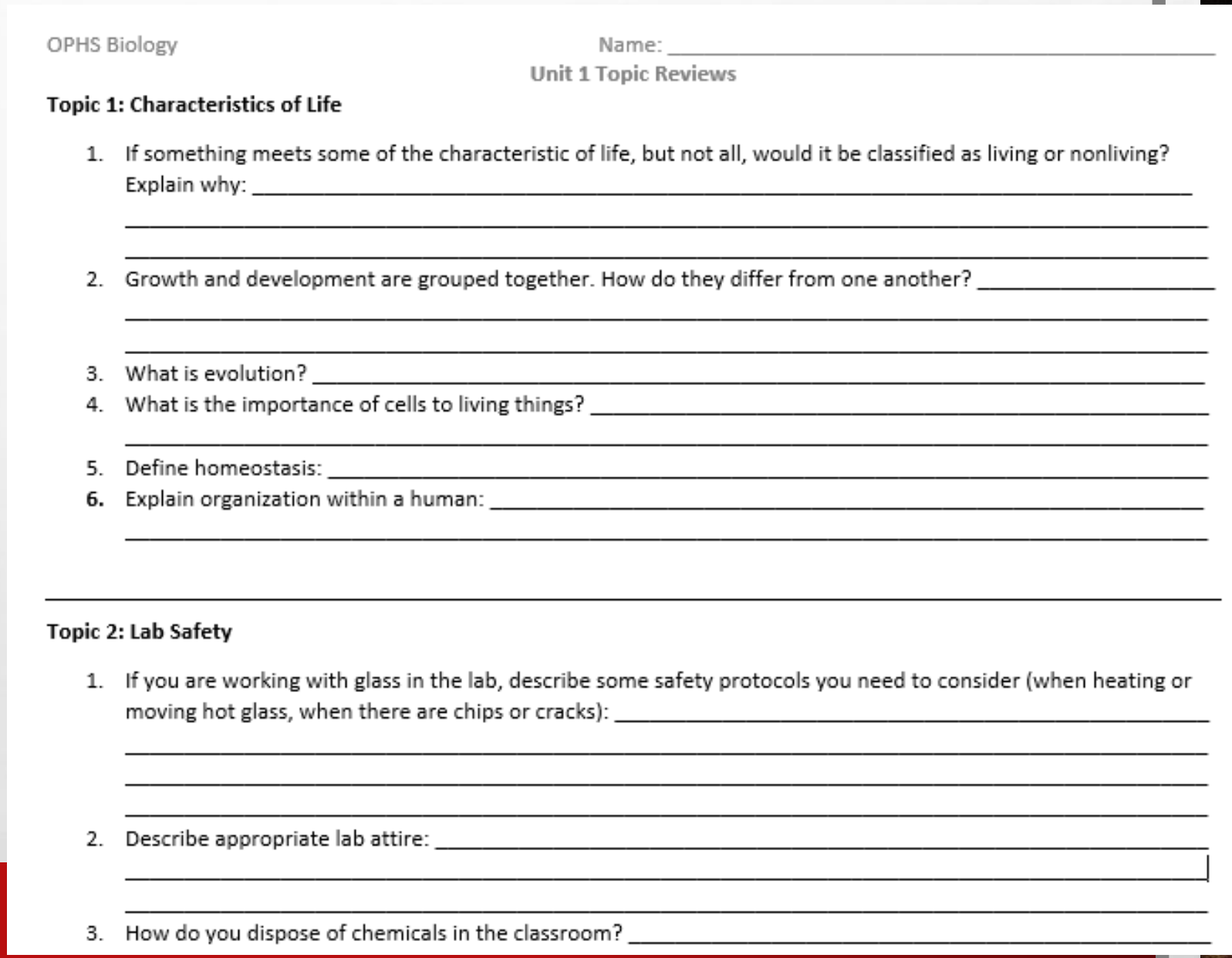
This is the student's responsibility!

ASSIGNMENT TITLES

- BASED ON UNIT # AND TOPIC #
  - U1T1 QUIZ = UNIT 1, TOPIC 1 (CHARACTERISTICS OF LIFE) QUIZ
  - U1T1 WRITING ASSIGNMENT = CHARACTERISTICS OF LIFE WRITING ASSIGNMENT (ARE VIRUSES ALIVE?)

QUIZ PREP

- FIRST DAY OF EVERY UNIT, STUDENTS RECEIVE THE NOTE PACKET, THE TOPIC REVIEW HANDOUT, AND THE UNIT MAP.
- PRIOR TO A QUIZ, STUDENTS SHOULD COMPLETE THE TOPIC REVIEW (ON OWN)



OPHS Biology Name: _____

Unit 1 Topic Reviews

Topic 1: Characteristics of Life

1. If something meets some of the characteristic of life, but not all, would it be classified as living or nonliving? Explain why: _____
2. Growth and development are grouped together. How do they differ from one another? _____
3. What is evolution? _____
4. What is the importance of cells to living things? _____
5. Define homeostasis: _____
6. Explain organization within a human: _____

Topic 2: Lab Safety

1. If you are working with glass in the lab, describe some safety protocols you need to consider (when heating or moving hot glass, when there are chips or cracks): _____
2. Describe appropriate lab attire: _____
3. How do you dispose of chemicals in the classroom? _____

RETAKES

- **RETAKES ARE AVAILABLE AFTER EVERY TEST, IF AND ONLY IF THE STUDENT COMPLETES THE ASSIGNED REVIEW PACKET BEFORE THE ORIGINAL TEST.**
  - ***No second chances if you didn't try the first time.***
  - ***Student must also complete "Target Practice" for each topic they'd like to retake***

PRE-TEST

- ALL UNIT REVIEWS LOOK THE SAME

Name: _____ Date: _____ Period: _____

Unit 1 Review Packet

Topic #1: Characteristics of Life

1. List all of the characteristics of life.

2. Is the following sentence true or false? All organisms respond to the environment in exactly the same ways. Explain your answer.

3. What is homeostasis? Provide an example of maintaining homeostasis in humans.

4. What are the two types of reproduction and how are they different?

5. What are the two types of stimuli that organisms respond to in their environments? Provide an example of each.

6. What is the difference between an autotroph and a heterotroph?

7. List the following levels of biological organization in order from smallest to largest: organ system, tissue, atom, cell, organism, organ, molecule

PRE-RETAKE

- AVAILABLE ONLINE OR IN CLASS

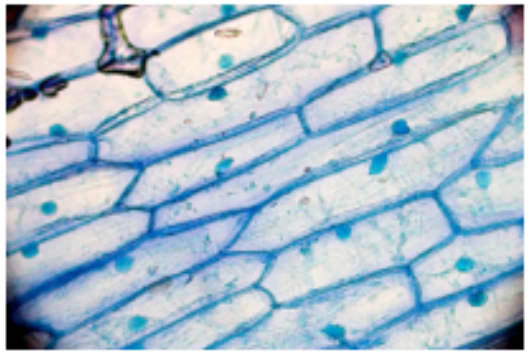
Name:_____ Date:_____ Period:_____

Target Practice, Unit 1 Topic #1 – Characteristics of Life

1. Humans keep physiological factors like body temperature, blood sugar, and blood pressure within a stable range. Identify the characteristic of life that most closely relates to this.

2. Human muscle cells are arranged into muscle tissue, which comes together to form the heart, which is part of the cardiovascular system. In this system, smaller units work together to create larger body parts with a particular function. Identify the characteristic of life that most closely relates to this.

3. When scientists look at an onion slice under a microscope, they see many small "boxes" within the piece of onion (see image to the right). Unlike an onion--which is a plant--some organisms like bacteria are only made of one "box." Both plants and bacteria, however, are similar in that they have these "boxes." Identify the characteristic of life that most closely relates to this.



GRADEBOOK

Topic	
1. Characteristics of Life	3. Scientific Method
2. Lab Safety	4. Data Analysis

U1T1 Writing Asssignment MAX:100.00 PTS:1.00 8/28/2019	U1T1 Quiz MAX:100.00 PTS:1.00 9/5/2019	U1T2 Quiz MAX:100.00 PTS:1.00 9/5/2019
Classwork	Assessments	Assessments
75	100	100
58	90	93
42	0 UNV	0 UNV

- BROKEN DOWN BY TOPIC
- QUIZ, TEST, AND RETAKE COLUMN FOR EVERY TOPIC
  - NO RETAKE? COLUMN STILL PRESENT, ASSIGNMENT IS EXEMPT

HOW IS BIOTECH DIFFERENT?

- QUARTERLY BIOTECH PROJECTS
  - TECHNOLOGY BASED
  - SOME GROUP, SOME INDIVIDUAL
  - BIOFEST
  - END OF YEAR LABS

HOW TO CONTACT ME:

- **Classroom:** 3113
- **School email:** bedforkm@pwcs.edu
- **School phone:** 703-365-6500
- **Website:** bedfordbiology.weebly.com

- I am available in my classroom for before school everyday and one hour after school on Thursdays for your students' needs. I am available for face-to-face meetings during that time if you or I think it is necessary. Contact me via email to set up an appointment.

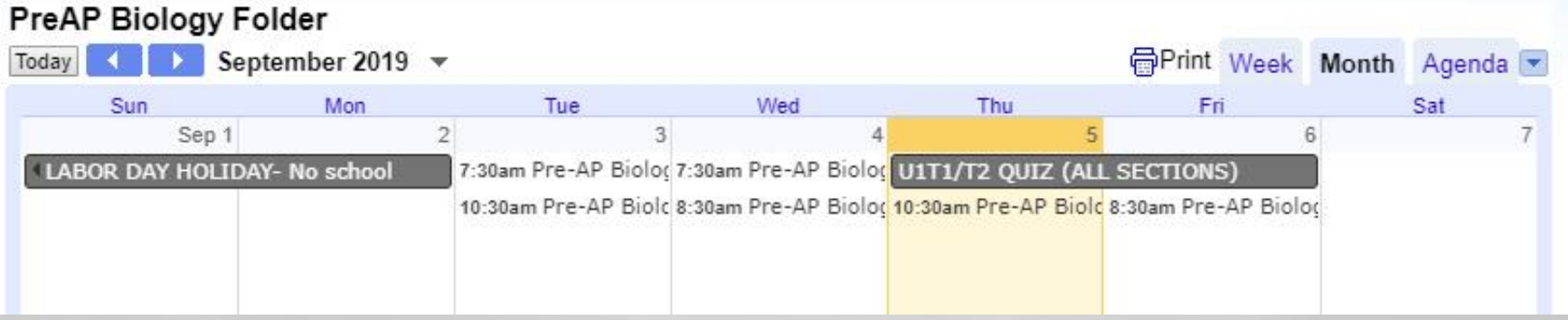
WEBSITE

Welcome to Ms. Bedford's Class Website!

Welcome to the 2019-2020 school year! This year, I will be staying after school on Tuesdays, but only if you are in the room with me by 2:20. I will stay until at least 3, but with previous arrangements I may be able to stay later or stay on a different day.

First period will be able to enter the room starting at 7:20.

Here, you can find most of the documents that we will be using in the classroom. Use the drop down menu to find what you are looking for. If you have misplaced anything, you can download and print from here.



THANK YOU FOR COMING!

PLEASE NEVER HESITATE TO REACH OUT!