

Freshmen Physics 92A

Energy Transformations (Chapters 10 & 12)

TEST DATE: December 12th , Friday

Essential question: How does energy change forms and how is matter and energy interchangeable

After completing unit, each student will be able to:

1. **Express** numbers in scientific notation and convert from standard forms
2. **Convert** units using dimensional analysis
3. **Name and describe** the different forms of energy
4. **Describe** how energy is lost to a system
5. **Draw** energy flow diagrams for systems
6. **Recognize** the role of energy & power in technology, nature & living things.
7. **Describe** how matter & energy are interchangeable.
8. **Explain** the equation $E=mc^2$.
9. **Explain** the fastest speed in the universe.
10. **Explain** a black hole.
11. **Describe** the key consequences of special relativity.

The list of OBJECTIVES (1 -11) above will serve as YOUR study guide for quizzes and the BIG TEST. These are the items that you will be tested on. It is recommended that you read through this list frequently as material is presented in class. Questions/confusion about concepts presented in class need to be addressed **PRIOR** to the **testing date**. Questions about concepts cannot be answered during the test. Additional help can be obtained before school, after school and during WEB if needed. (Check with your teacher for times)

In addition, it is recommended that you read the Chapter on your own and study for at least 15 - 30 minutes each night w/o distractions such as the TV and phone. Review class notes regularly, keep up with the unit sheet assignments, and complete all worksheets are other ways that will help you to be successful in class and to do well on assessments.

Freshmen Physics 92A Chapter 10 & parts of Chapter 12.

Name _____ Date _____ Period _____

TEST DATE: Friday, December 12 .

This sheet will be used to keep track of the textbook assignments, due dates and scores for the Unit. This sheet must be kept and turned in on the TESTING DATE for the UNIT. Work turned in after the DUE DATE will not receive full credit.

DIRECTIONS: IN ORDER TO RECEIVE FULL CREDIT FOR AN ASSIGNMENT, YOU MUST WRITE OUT EACH QUESTION or DEFINITION, AS IT APPEARS IN THE TEXTBOOK AND ANSWER THE QUESTION!!! ALL ASSIGNMENTS MUST BE LABELED BY NUMBER AND OUT ON YOUR DESK AT THE START OF EACH CLASS PERIOD ALONG WITH THIS SHEET

Assignment #1	<i>Monday night's home work</i>	Score
Due date: Tuesday Dec 2 nd	Define (14 words) : energy, mechanical energy, radiant energy, electrical energy, chemical energy, nuclear energy, energy of pressure, energy flow diagram, special relativity, time dilation, general relativity, black hole, frame of reference, big bang	
Assignment #2	<i>Wednesday night's homework</i>	
Due Date: Thursday Dec 4 th	Page 251 UV: 1-5, RC: 1-4 SP: 1-3	
Assignment #3	<i>Thursday Night Homework</i>	
Due Date: Friday Dec 5 th	Page 251 UV: 6-9 RC: 6-9	
Assignment #4	<i>Week – end Homework</i>	
Due date: Monday Dec 8 th	Page 251 UV: 10-12 RC:10,12 SP: 5,6,11	
Assignment #5	<i>Monday Night's Homework</i>	
Due Date : Tuesday Dec 9 th	Page 251 RC: 13-17 Page 294 UV: 1-4, RC: 1,2, 5,	
Assignment #6	<i>Wednesday night's Homework</i>	
Due Date: Thursday Dec 11 th	Page 294: UV: 6-8, RC: 6-8, SP: 1,2	
Homework score		
Bonus points		

Equations: $E = mc^2$