

Honors Physics Summer Work 2019-20

Join the Honors Physics Google Classroom using a Gmail account. If you do not have a Gmail account, sign up for one through Google. The special code to join the classroom is **97gfbw**. If you have any problems signing up, please email me at kmilgrim@phoenixchristian.org. Do not wait until the last minute to do this. Sign up before school is out so you know you are in the class.

Assignment #1

You will be reading ***A Brief History of Time by Stephen Hawking***. The link to the free pdf version of this illustrated book will be placed in the Google Classroom Stream. It is also posted here for you to access.

https://www.fisica.net/relatividade/stephen_hawking_a_brief_history_of_time.pdf

There will be a 20 question chapter test that will be given after every two chapters. The reading guide will be given below as to when each chapter is due and when the tests should be taken. The tests will be taken online at www.thatquiz.org. I will provide the link for the tests through the Google Classroom Stream. The password will be emailed to you once you have signed up for the class.

Chapters 1 & 2	Chapter Test Due By Saturday, June 1st
Chapters 3 & 4	Chapter Test Due By Saturday, June 8th
Chapters 5 & 6	Chapter Test Due By Saturday, June 15th
Chapters 7 & 8	Chapter Test Due By Saturday, June 22nd
Chapters 9 & 10	Chapter Test Due By Saturday, June 29th
Chapters 11 & 12	Chapter Test Due By Saturday, July 6th

Assignment #2

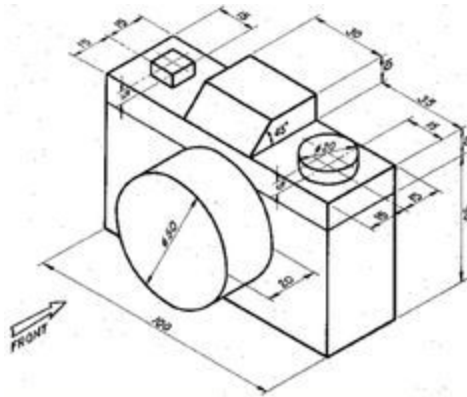
You are to research the structure of a truss bridge and how it works with physics. The key concepts you should look at are compression, tension, stress (types of), and loads. Look on the internet and document at least ten websites that you used to help you research and design your bridge. You will submit the URL addresses to me via email at [www.kmilgrim@phoenixchristian.org](mailto:kmilgrim@phoenixchristian.org).

This will due be by Saturday, July 26th.

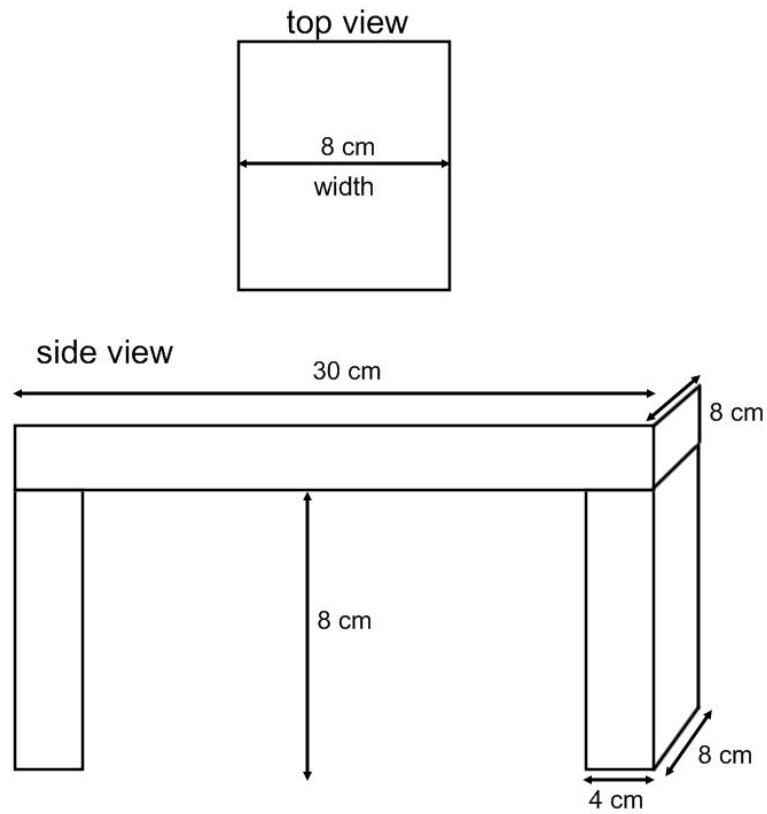
Use notebook (college rule) paper to define all of these key vocabulary terms for the truss bridge (compression, tension, types of stress, and loads). You will turn this in **on the first day of class in August.**

Assignment #3

Draw an isometric drawing of your bridge design once you have finished your research. Use a ruler and the units pages provided to you to draw your bridge design from the side view and top view (looking straight down).



Here is an example of an isometric drawing. Notice the measurements are given for each part of the structure drawn. Your bridge will span 30 centimeters long and 8 centimeters wide. The bridge will need to have a clearance of at least 8 centimeters from the middle of the bridge. The base units (those which hold the bridge) will be 4 centimeters long and 8 centimeters wide.



These drawings will be **due on the first day of class** when you come to school in August.

If you have any questions, please email me at kmilgrim@phoenixchristian.org or ask in the Google Classroom setting.

Blessings,

Mr. Milgrim