Unit 4 physics

# Study guide

**Write at least 1 page that summarizes the subjects below.**

1. Know how the phase of matter is related to the motion of molecules. Know about the forces that exist between water molecules and what “polar” means.
2. Know how to use trig to find the height of a building. Be able to solve vector additions that form right triangles (Pythagorean theorem and tangent).
3. Be able to use the law of sine and the law of cosine to solve vector additions that do not form right triangles.
4. Know how vectors apply to sail boats. Know why they can travel the fastest going against the wind.
5. Be able to measure the distance and time of a falling object and use those measurements to calculate the acceleration.
6. Know how to use a lever to calculate the mass of bottle water..
7. Know how to calculate the average the momentum, average velocity, final velocity and acceleration of dart if given the needed data.
8. Know how to compare the accuracy of finding a resultant using a force table and using the Law of Cosine and the Law of Sine.