

## Chp 5 & 6: Force & Motion & Newton's Laws

### CA State Standards : Physics: Motion

1. The velocity of an object is the rate of change of its position. As a basis for understanding this concept, students know:
  - a. position is defined relative to some choice of standard reference point and a set of reference directions.
  - b. average speed is the total distance traveled divided by the total time elapsed. The speed of an object along the path traveled can vary.
  - c. how to solve problems involving distance, time, and average speed.
  - d. to describe the velocity of an object one must specify both direction and speed.
  - e. changes in velocity can be changes in speed, direction, or both.
  - f. how to interpret graphs of position versus time and speed versus time for motion in a single direction

### CA State Standards : Forces

2. Unbalanced forces cause changes in velocity. As a basis for understanding this concept, students know:
  - a. a force has both direction and magnitude.
  - b. when an object is subject to two or more forces at once, the effect is the cumulative effect of all the forces.
  - c. when the forces on an object are balanced, the motion of the object does not change.
  - d. how to identify separately two or more forces acting on a single static object, including gravity, elastic forces due to tension or compression in matter, and friction.
  - e. when the forces on an object are unbalanced the object will change its motion (that is, it will speed up, slow down, or change direction).
  - f. the greater the mass of an object the more force is needed to achieve the same change in motion.
  - g. the role of gravity in forming and maintaining planets, stars and the solar system.

### Wk 21 : Feb 3,6-10: Chp 5: Motion & Forces Sections 1&2 Holt Chp 5

Hwk: Chp5 Little Book: Monday Feb 27th- in class

2/1&2 Wed/Thur Blk2	Lect 1: Distance, Time, Speed:	
2/3 Friday	Lect 2: Forces: Velocity Formulas:	
2/6 Mon	Lect 3: Friction ppt / Little Book Work Time	
2/7-8 Tue/Wed Blk1	Lect 4: Gravity ppt /Lab: Bubble Gum Physics	
2/9 Thur: Blk2	Lect 5: Forces & Motion: ppt / Little Bk Work Time	Little Book Work Time
2/10 Friday	Lab: Speed Machines	

### Wk 22 : Feb 13-16 Chp 5: Motion & Forces Sections 3 & 4 Holt Chp 5 pg:104-135 No School Friday

Hwk: Chp 5 Little Book: Due DUE Fri Feb 24 in class!

2/13 Monday	Bernoulli's principle: Labs	
2/14-15 Tues/ Wed Blk1	Bernoulli's principle: Labs	
2/15-16 Wed/Thu Blk2	Flying Car building	
2/17 Fri:	No School: President's Day Weekend!	

### Wk 23: Feb 21-Feb 24 Flying Car Building Week No School Monday Chp 5 Little Book DUE Fri Feb24

Tues-Fri	Flying Car Building Days!	Little Book: Chp 5 Little Book: Fri Feb 24th-in class
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### Wk 24: Feb 27- Mar 3 Chp 6 : Newton's Laws

Mon:	Lect 7: Chp 6 Newton's Laws part 1	
Tues/ Wed Blk1	Lect 8: Chp 6 Newton's Laws part 2	
Wed/Thu Blk2	Chp 6 Little Book Work Time!	
Fri:	Flying Car Trials: Distance, Time & Speed	

### Wk 25: Mar 6-10 Roller Coaster Web Quest Week Lect /Lab NB : Due on Mon Mar 13 Before School

Lab Lect/NB due on Mon Mar 13th- BEFORE School / Chp 6 Little Book due on test day (Mar 14 & 15th)

Roller Coaster Web Quest Week. A study on Forces & Motion PLUS Kinetic & Potential Energy

Mon/Tues/ Wed Blk1	Roller Coaster Web quest day	
Wed/Thu Blk2	Roller Coaster Building Day!	
Fri:	RC Poster Day, Notebook Assembly Day :	

### Wk 26: Mar 13-15 Final Exam Chp 5&6 Block Day1 Lect /Lab NB : Due on Mon Mar 13 Before School

Lab Lect/NB due on Monday- BEFORE School / Chp 6 Little Book due on test day (Mar 14th/15th)