**Newton’s Laws chapter 3**

**p24 find a heavy and a light ball…side by side, which one is harder to move?**

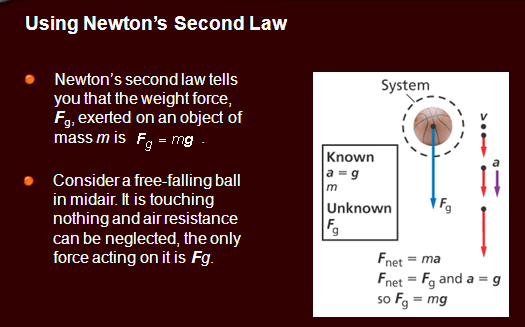
**Mass-**

**Net force-**

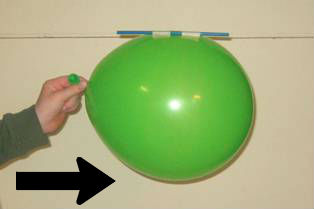
**Newton’s second law**

**F=ma**

**Force=mas x acceleration**

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**P30 Balloon Rocket string, plastic straw, paper clips, masking tape, balloons, washers**



**What happens when you add weight to your experiment?**

**-you should have had more acceleration as you increased force, which is your balloon…if you added more weight, then acceleration should have decreased**

**-when you angled the string upward, the acceleration should have got smaller….F stands for net force…gravity is a force at an incline!**

**Frictional force**

**Chapter 4 Gravity**

**Gravity-**

**Look at magnets on a stick to show a force that we can’t see our touch….like gravity**

**P36-which has more mass-a box of paper clips or a single paper clips…which will land first? /drop alight and a heavy ball-which lands first?**

**P37-what happens when you throw a ball through the air?**

**Newton’s 2nd Law F=ma describes the above activities**

**Weight-**

**-the box of paper clips felt heavier…but did it land any faster than the single paper clip?**

**-when gravity is the only force activity, all objects have the same acceleration (on Earth is 9.8m/s2**

**-mass = object’s inertia**

**Chapter 5**

**Newton’s 3rd law**

**p52 push your finger on your hand held out flat…do you see a mark? Now push hard on a table or large object that does not move…do you see a mark?**

**The object was pushing back on you!!**

**Newton’s Third Law-**

**“To every action, there is always opposed and equal reactions”**

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**Tension**

**Example-tug of war game**

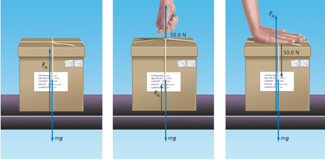


**What happens when the forces are not equal??? Watch some videos!**



**Two objects in contact**

**Normal force-**

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