Lab Report Format

All lab report should contain the following sections:

1. **Title:**
2. **Focus Question:** (testable question)
3. **Purpose:** (possibly) (gives the objective of the activity; what concept or skill is highlighted by this activity?)
4. **Background:** (possibly) (what information do I already know or can I find easily?)
5. **Hypothesis:** (answer to the focus question)
6. **Materials**: (list of items you need to carry out the experiment)
7. **Procedures**: (steps to carry out the experiment, can include diagrams)
8. **Data**: (measurements or observations usually in some sort of table)
9. **Analysis:** (most likely includes a graph and for 8th grade, usually questions to be answered; can include diagrams, only fact is stated here!)
10. **Conclusions:**
    a. What did you learn?
    b. Hypothesis restated and what was right or wrong about it; this is where you include your opinion as to why the results came out as they did.
    c. Recommendations/changes for future trials to improve the experiment

Also,

- These above headings should stand out (**bold**, different color, <u>underlined</u> etc.)
- Order **does** matter, along with format; space between each section.
- Size 12, Times New Roman font only

Short example on back.

Jack Smith S1 March 21, 2012

Title: Bouncy Ball?

Focus Q: How do different types of balls bounce?

Purpose: To understand how different materials affect a sport's ball performance.

Background: Some materials have a more elastic property so a ball made with such a material will bounce higher.

Prediction/Hypothesis: If different types of balls are dropped from the same height then each ball will bounce up to different heights because of the different materials the balls are made from.

Materials: meter stick, 3 different types of balls

Procedures:

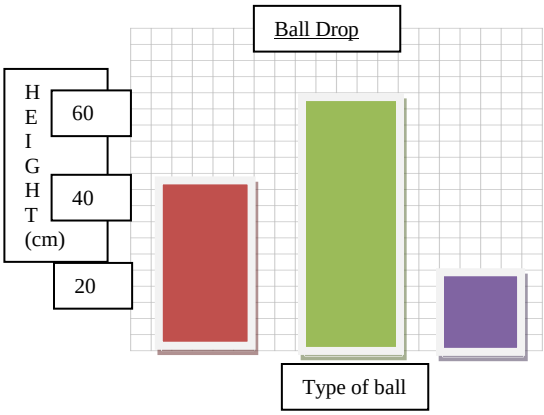
1. Hold one ball beside the top of the meter stick.
2. Drop the ball.
3. Have a partner observe and record the height of the first bounce.
4. Repeat 1-3 two more times for the same ball.
5. Repeat 1-4 for the other two types of balls.

Data:

Type of ball	**Height of Bounce (cm)**		
	Trial 1	**Trial 2**	**Trial 3**
lacrosse	40	38	41
tennis	60	65	66
baseball	20	23	18

Analysis:

1. Each type of ball bounced around the same height for each trial (lacrosse 40cm; tennis 63cm; baseball 20cm).
2. The tennis ball bounced the highest (63cm) while the baseball bounced the lowest (20cm).



Conclusion:

Different types of balls bounce to different heights from the same starting point depending on what they are made out of. The tennis ball bounced the highest because it is made out of a medium type of rubber, air and felt. The type of rubber and air are both elastic making the tennis ball bounce the highest (63cm). The lacrosse ball's bounce was in the middle because it is made out of a medium to hard type of solid rubber which is somewhat elastic so it bounced 40cm. The baseball bounced the least because it is made out of cork, rubber, wool, rubber cement, cow hide and stitching. Not all of these materials are elastic so this ball had the least bounce (20cm). The material a ball is made out of did affect how high the ball bounced because the most elastic type of ball (tennis) bounced the highest (63cm) while the least elastic type of ball (baseball) bounced the lowest (20cm). In the future, more types of balls could be tested or different balls made with even more similar materials could be tested against each other for example, all the types of balls tested could have air in the middle or all solid types of balls.