Build a WarmUp Assignment

Name: _____

Institution: _____

Subject taught: _____

Specific topic _____

Key Idea(s): _____ , _____ , _____

_____ , _____ , _____

New Jargon: _____ , _____ , _____

_____ , _____ , _____

Important skills: _____ , _____ , _____

_____ , _____ , _____

_____ , _____ , _____

Build your WarmUp Assignment by forming a few questions. Use the template questions on the back if needed. There is also an example attached.

Question:

Question:

Question:

Question: Explain what <jargon> means in your own words.

Question: Explain the similarities and differences between the terms <jargon 1> and <jargon 2>

Question: <Key Idea> is used to describe <situation>. What can you say about <this example>

Question: Which of the statements following do you think is true? Explain your reasoning
      a. <True statement>
      b. <False Statement>
      c. <common misconception>
      d. <both a and c>
      e. <both b and c>

Question: <key idea> is similar in some ways to <previous key idea>. What are the important similarities? What are the important differences?

Question: Under what circumstances can we use <important skill>? What are some circumstances in which <important skill> does not apply?

Question: Rank the following <things> in order of <property>. Explain how you determined your ranking.

Question: Applied properly, <key idea> has the potential to help millions of people. Are there also disadvantages to <key idea>? What are the most serious?

Question: Unusual thing happens in certain circumstances. How does <key idea> explain this?

Question: We have solved problems before using <old skill>. What new problems can <important skill> solve that <old skill> could not?

Question: Give an example of how <key idea> applies to your daily life.

Example: A newly built WarmUp assignment

Name: Tricia McMillan

Institution: University of Dentrass

Subject taught: 300 level Electromagnetism

Specific topics: The day we start magnetostatics

Key Idea(s): Magnetic forces and fields, Biot-Savart law

New Jargon: Current densities (surface and vol.), continuity, cyclotron motion, cycloids, permeability of free space.

Important skills: Use Lorentz force law in statics or dynamics problems, connect current with current density, apply Biot-Savart to determine fields

Build your WarmUp Assignment by forming a few questions.
Question 1: In your own words, explain why a magnetic field cannot do any mechanical work. Now, explain how it is that a large electromagnet can be used to pick up a wrecked car.

Question 2: A thin insulating disk of inner radius R1 and outer radius R2 has a charge Q spread uniformly over its surface. If the disk spins with angular velocity w, what is the total current equivalent to this. What is the surface current density as a function of radius?

Question 3 The continuity equation describes conservation of charge in situations where electric current is flowing. Write a similar equation describing conservation of mass where a gas is flowing. Be sure to define all of your variables, and state the units!

Question 4: Compare the Biot-Savart law to the expression that gives the electric field of a charge distribution. What is the same, and what is different? What do you expect for the dependence of magnetic field on distance from an infinite sheet of current?