The Question Formulation Technique™ (QFT™) for Science

1. **FOCUS**: The bosque is a dynamic and complex ecosystem

2. **Go To**: BEMP.org/data-sets and see what kind of data has been collected over the years. Don’t get too deep into the data, just see what types of data are available.

3. **PRODUCE QUESTIONS**
   * Four Essential Rules for Producing Your Own Questions:
     1. Ask as many questions as you can
     2. Do not stop to analyze/discuss, judge or answer the questions
     3. Write down every question *exactly* as you think of it
     4. Change any statement into a question

4. **IMPROVE YOUR QUESTIONS**
   * Categorize your questions as investigable or non-investigable:
     - Investigable questions meet the following criteria:
       □ I do not already know the answer(s) to this question.
       □ Question leads to a plan for what I need to do to answer the question, including the evidence I need to collect.
       □ This question can be answered with available material (the data available from BEMP.org or USGS.gov (river flow data)).
       □ This question can be answered in a reasonable amount of time.
     - Write INV next to investigable questions
     - Cross out non-investigable questions or rewrite them so they can be investigated.
   * Categorize the questions as Closed- or Open-ended:
     - Closed-ended questions can be answered with “yes” or “no” or with one word.
     - Open-ended questions require an explanation and cannot be answered with “yes” or “no” or with one word.
     - Find closed-ended questions. Mark them with a “c.”
     - The other questions must be open-ended. Mark them with an “o.”
     - Write down the advantages and disadvantages of each type of question (open vs closed)
     - Change questions from one type to another:
       - Change one closed-ended question to open-ended.
       - Change one open-ended question to closed-ended.

5. **PRIORITIZE YOUR QUESTIONS**
   * Choose your three most important and testable questions.
   * Why did you choose these three as the most important?
   * Now choose your MOST IMPORTANT and TESTABLE question

6. **QUESTION TO HYPOTHESIS** – re-write your question as a prediction statement (HYPOTHESIS)

*Adapted from materials provided by the Right Question Institute, Harvard University [http://rightquestion.org/](http://rightquestion.org/)*