**TAXONOMY OF CLASSROOM QUESTIONS**
(based on Collette & Chiappetta, 1989, p. 207)
[based on Bloom’s Taxonomy of Cognitive Objectives (Bloom, 1956)]

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>COGNITIVE ACTIVITY</th>
<th>KEY CONCEPTS</th>
<th>SAMPLE QUESTIONS</th>
</tr>
</thead>
</table>
| Evaluation  | Judge, appraise, or criticize – on the basis of a set of standards or criteria. | Evaluate, judge, critique, substantiate. | 1. Evaluate the XYZ Company’s research program on genetic engineering of crop plants from a moral and ethical point of view.  
2. Judge the merits of the research based on your criteria for conducting research. |
| Synthesis   | Produce, design, make and construct products. Synthesize ideas, produce ways, and determine how to... | Make, produce, create, write.   | 1. Produce a scenario about aquatic life in Lake Erie if industrial pollution were eliminated.  
2. Design an experiment to determine how much energy can be saved by using storm doors in a home in winter. |
| Analysis    | Distinguish the parts from the whole, identify causes, find support and evidence. Construct hypotheses and draw conclusions | Reason, think Logically, induce, deduce. | 1. What are the effects of the two chemicals on the mobility of the clownfish?  
2. Present evidence that demonstrates the harm that has been caused by nuclear power plants. |
| Application | Solve problems, find solutions, and determine answers through the application of rules, principles, or laws. | Application, solution, determination. | 1. Determine the resistance in the circuits from the data given  
2. Find the molarity of the solutions, given their normality. |
| Comprehension | Comprehend, interpret, or translate information or ideas. | Describe, explain, illustrate. | 1. How would you measure the distance between the earth and a planet in the center of a neighboring galaxy?  
2. What does the graph tell you about the influence of x-rays on bacterial cell growth? |
| Knowledge   | Remember, recall, or recognize facts, ideas, information, or principles as they were taught. | Knowledge, recall, memory.      | 1. Define salinity.  
2. Who discovered the structure of DNA?  
3. What is the autumnal equinox? |
REFERENCES