Bloom's Taxonomy Applied to EE
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Bloom's Taxonomy is a method of describing what level of cognition a student is demonstrating when answering questions. The levels are listed below, along with descriptive terms and an example.

Knowledge: (finding out) recall of specific information, facts, or theories
Terms: identify, describe, define, list, match, name, state
Ex: What is the equation relating voltage and current in a capacitor? Answer: \( i = C \frac{dv}{dt} \)

Comprehension: (understanding) grasping and interpreting meaning
Terms: convert, distinguish, estimate, rewrite, describe, paraphrase, restate, summarize, interpret
Ex: If 100 \( \mu \)A flows thru a 1 \( \mu \)F capacitor for 1 ms, estimate the change in voltage across the capacitor.

Application: (making use of knowledge) using learned material in new situations
Terms: solve, show, demonstrate, compute, alter, construct, manipulate, calculate, apply, modify
Ex: Solve for the current, \( i(t) \), in capacitor \( C \) in the circuit shown below.

Analysis: (taking apart the known) breaking down into parts, understanding organization, clarifying, concluding
Terms: analyze, distinguish, diagram, outline, classify, categorize, relate, dissect, survey, deduce
Ex: In the circuit shown below, categorize the purpose each capacitor serves as one of the following:
   a. filtering  b. timing  c. voltage shifting

Synthesis: (putting things together in another way) putting parts together to form a new whole
Terms: design, compose, create, combine, compile, rearrange, plan, hypothesize, construct, plan
Ex: Design a voltage-doubling circuit using capacitors.

Evaluation: (judging outcomes) judging value for a purpose, supporting judgment with reason, applying criteria in judgments
Terms: appraise, criticize, compare, evaluate, justify, support, conclude, discriminate, judge, choose
Ex: Comment on the advantages and disadvantages of each of the following low-pass filter designs, and choose the one you would use for the woofer in your stereo system.