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An Active Learning Approach to Abstract Algebra. Preliminary report.

Would you like to hear your math majors say, "Wow, we just came up with the definition of a ring...all on our own!"? This talk will showcase a Concept Attainment Lesson, a type of active learning teaching model, which helps students who have previously covered group theory, be able to successfully come up with the definition of a ring...all on their own. You will be shown how to revisit the activity to let students also create the definition of an integral domain and a field. Additionally, the talk will include ideas and examples from active learning worksheets that accompany the lesson and have students experiment with, and extend, the definitions for a deeper understanding of the concepts. (Received September 17, 2019)