



DYNAMIC CURRICULUM

Toward High School Biology: Understanding Growth in Living Things (Teacher Edition). By American Association for the Advancement of Science and the National Science Teachers Association. 2017. NSTA Press. (ISBN 978-1-68140-560-5) 427 pp. Paperback. \$44.95.

Toward High School Biology is an entire unit of curriculum connecting the concepts of matter cycling with growth and repair of living structures. The teacher edition contains thorough plans, with chapter overviews, background knowledge, prerequisite knowledge, common misconceptions, and a storyline. Times for each portion of a lesson are provided down to the minute. For teachers who are less familiar with NGSS-aligned lessons and the use of phenomena, the plans are well scaffolded. Students are given the tools to construction complete explanations that include claim, evidence, and reasoning. Teacher Talk and Actions are broken down into minutes and include instructions about what students should be doing and how they might respond. For example: “Key Question (1 min) Introduce the Key Question: How are changes in the matter that makes up living and nonliving things similar? Usually, you will use the Key Question to elicit and probe student ideas” (p. 11). The contents of the book are broken into four chapters with a total of 19 lessons. The first chapter focuses on changes in matter and using models. Chapter 2 is about chemical reactions and conservation of mass. The third chapter brings in Life Science Standard LS1 as it connects monomers, polymers, and carbohydrate synthesis with photosynthesis. Chapter 4 balances this by relating amino acid to protein formation with growth and repair in animals.