

SUGGESTED SKILL

 *Visual Representations*

2.A

Describe characteristics of an environmental concept, process, or model represented visually.



AVAILABLE RESOURCES

- Classroom Resource > [AP Environmental Science Teacher's Guide](#)
- External Resource > [Environmental Literacy Council's AP Environmental Science Course Material](#)
- The Exam > [Chief Reader Report 2017, Q1](#)
- The Exam > [Student Performance Q&A 2014, Q2](#)
- The Exam > [Samples and Commentary \(2017, Q1, 2014, Q2\)](#)
- Classroom Resource > [Quantitative Skills in the AP Sciences \(2018\)](#)

TOPIC 8.11

Sewage Treatment

Required Course Content

ENDURING UNDERSTANDING

STB-3

Human activities, including the use of resources, have physical, chemical, and biological consequences for ecosystems.

LEARNING OBJECTIVE

STB-3.N

Describe best practices in sewage treatment.

ESSENTIAL KNOWLEDGE

STB-3.N.1

Primary treatment of sewage is the physical removal of large objects, often through the use of screens and grates, followed by the settling of solid waste in the bottom of a tank.

STB-3.N.2

Secondary treatment is a biological process in which bacteria break down organic matter into carbon dioxide and inorganic sludge, which settles in the bottom of a tank. The tank is aerated to increase the rate at which the bacteria break down the organic matter.

STB-3.N.3

Tertiary treatment is the use of ecological or chemical processes to remove any pollutants left in the water after primary and secondary treatment.

STB-3.N.4

Prior to discharge, the treated water is exposed to one or more disinfectants (usually, chlorine, ozone, or UV light) to kill bacteria.