

AP Biology Summer Institute Agenda:

DAY 1: Understanding AP Biology

- Understanding the Updated AP Biology Curriculum
 - Course Framework, Unit Guides, Topic Pages
- Scaffolding and Spiraling Concepts in AP Biology: Teaching For Understanding and Transfer of Content
- AP Classroom: AP Course Audit and Curricular Requirements
- Knowing the Target: The AP Exam
- Investigations in AP Biology: What are the Requirements?
- Question Biology: Science Practice 3
 - Investigation: Mung Beans and Soil Salinity
- Know Biology: Science Practice 1
 - Investigation: Cellular Respiration vs. Photosynthesis
- Curriculum Mapping: How are you going to do all of it?

DAY 2: Teaching AP Biology

- AP Teacher Community and Resources
- Argue Biology: Science Practice 6
 - Reimagine the CER - The QECR
- Where Content and Skills Merge: The Free Response Questions
- Assessments: Formative vs Summative
- A Day in AP Biology: Active Learning in AP Biology
 - The BILL: Biology Interactive Learning Log
- Using Content to Teach the Science Practices: Instructional Approaches in AP Biology
- Calculate Biology: The Formula Sheet
 - Power of Simulations: The Mating Game
- Curriculum Mapping: How is learning going to be structured?

DAY 3: Integrating the Science Practices

- AI in AP Biology: What is its role?
- Visualizing Biology: Science Practice 2
 - Ambitious Modeling in AP Biology
 - Investigation: BLAST
 - Investigation: Using Biotechnology to Create Visual Representations
- Knowing the Misconceptions in AP Biology: Chief Reader Reports
- Broadening Access for AP: AP for All
 - Empowering your Students - Pointless and Ungrading Practices
- How to Use the Data: Science Practice 5
 - Investigation: Simpson's Diversity Index
- Curriculum Mapping: How is learning going to be Assessed?
- Importance of Water
 - Investigation: Why Cells Must be so Small
 - Investigation: Determining the Osmolarity of Plant Tissue

DAY 4: Assessing Progress and Understandings

- Putting it All Together: Using the IPR to Influence Planning
 - Curriculum Mapping - Scope and Sequence
- Cell Communication: What is the Most Challenging Concept to Teach
 - Investigation: Taste Lab
- Connecting the Science Practices in an Investigation
- Why are Yeast Spheres so Cool?
 - Investigation: Enzymes with Yeast
- Putting it in Reverse: Roadmapping AP Exam Review