Nucleic Acid Activity

By Karl Laroche

Out of Class

In Class (Instructor)

In Class (Students)

Begin Here.

Students are given the topics to be covered, including key concepts, learning outcomes, and assigned readings.

Students:

- Do assigned readings and watch videos about nucleic acids
- Do a quiz through Moodle to test what they have learned from the videos and readings

01

Instructor:

- Goes over questions students performed poorly on from pre-class quiz
- Reviews material at the start of the class and answers any questions students might have from the pre-assigned readings
- During review, students perform an active quiz
- Recommended time for review and active quiz: 35 minutes

Students Answer active quiz questions during the review part of the lesson

02

Instructor Introduces the activity and describes what students will be doing

Students:

- Get into their pre-assigned groups (4 students per group)
- Use the nucleic acid PowerPoint to correctly pair nucleotides together

03

Instructor and TAs:

- Walk around the room answering questions
- Encourage students to think about why nucleotides pair in a specific manner (deeper thinking of biochemical reasons behind pairing order)
- Encourage students to determine the 5'-3' directionality of DNA in the image they are working with
- Help groups not to get 'stuck' on 2D versus 3D orientation of nucleic acids in the ppt

Groups:

- Answer questions in Moodle related to nucleic acids while performing the activity
- If groups finish early, there are extra questions and activities for them to do for more practice

04

Instructor regroups class to:

- Review the activity
- Indicate what students should have learned from the activity
- Discuss how the activity illustrates what students will be expected to know for summative assessments

Students:

- Can access extra activities and questions through Moodle
- Can use these extra materials for practice

Work in Groups

Whole Class

Reading

Writing

Problem Solving

Discussion

Quiz