Teacher(s): Amanda Heinemann and Vindri Gajadhar

Grade(s): Middle School (6th – 8th grades), High School (9th grade)

Subject(s): Science, AP Human Geography

Idea 1 - Question Formulation Technique (QFT)

1. Look at selection of images of Cedar Key in the past (e.g. port, tidal flats, river, springs, Main Avenue area).
2. Distribute three strips (2” x 8 ½”) of paper to each student.
3. Have students individually compose questions they have after viewing/analyzing image/video.
4. Let them work in small groups to share questions.
5. Show students the difference between open-ended and closed questions.
6. Have groups sort questions into open and closed questions.
7. Ask them to select the one question in their group that will allow the class to think most critically while learning the most about the scene in the picture/content in the video.
8. Have one group spokesperson from each group share their chosen question.
9. Decide as a class which question to pursue (Option: differentiate and have class work on researching multiple questions in small groups).

Idea 2 - QFT Exploration and Teacher-led Climate Change Study

1. Select locale in Florida rich in habitat shown in image/video.
2. Research climate of area and determine role natural resources in area play.
3. Lecture on the topic of climate change and have students read selected articles on the impact of climate change (both locally and globally).
4. Read article from collection.

Idea 3 - Rise and Fall of Florida Settlements: Cedar Key case study

1. Show the students images from Cedar Key in the past. Show images of Cedar Key from present.
2. Ask students to jot down the differences they observe and then think about what might have caused the area to change over time (QFT format).
3. Explain to them the historical role of Cedar Key as a major Gulf coast port in the 1800s and how the port lost influence as a new railroad was built to Tampa.
4. Ask them to brainstorm ways in which Cedar Key might look different or play a different role in Florida in the future (30 years from now).
5. Ask them to explain why they think the changes might happen and how Cedar Key’s role might change.
6. Ask them to consider how climate change will affect Cedar Key.
7. Share their ideas.
8. Ask them to think about what other communities in Florida are going to experience similar changes due to climate change.
9. Discuss the domino effect of migration to other communities and the impact of rising populations on the resources in those rapidly growing communities (emphasize the concept of “systems” and how we are all connected and impacted by events around us).

Idea 4 – Oral History Interviews

1. Invite a long-time resident of area who has witnessed climate changes occurring in area over the years.
2. Conduct a mock oral history interview, demonstrating use of open-ended questions learned in QFT.
3. Challenge students to compose questions for oral history interview.
4. Pair up students to give feedback on interview questions.
5. Facilitate role-playing of mock student interviews.
6. Have students identify community member to interview (Option: Invite selected community members for oral history interviews conducted during school day.)

Idea 5 – Socratic Seminar

1. Gather important facts/evidence from unit study.
2. Formulate an initial claim (subject to change as gain additional insight).
3. Compose three questions that come to mind after reading and thinking.
4. Secure at least two additional evidence-based sources to support research thesis/claim.
5. Prepare outline of talking points for Socratic Seminar, using research notes.
7. Open floor for student-facilitated Socratic Seminar.