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| **Title** | Resolving Conflict: Development vs. Environment |
| **Introduction** | This lesson is part 3 of a unit on Global Collaboration that uses the topic of Water Quality to teach the skills of a modern workplace.    Twenty-first Century Skills are focused on the universal proficiencies that all productive adults will need in their professional lives.  Foremost among these is the ability to communicate effectively within a group.  It is inevitable, and somewhat beneficial, that a group will encounter points of disagreement. It is imperative that students develop the skills needed to reach consensus and get past conflict.  In this lesson, students will engage in a debate-like activity on the topic of whether protection of the environment is more important than growth and development of human settlements. At the conclusion of the activity, students will have arrived at a reasonable decision based on the opinions of many individuals, respecting those opinions as much as is possible. |
| **Curriculum Alignment** | *Eighth Grade Science Essential Standards*  8.L.3.2  Summarize the relationships among producers, consumers, and decomposers including the positive and negative consequences of such interactions including:   * Coexistence and cooperation * Competition (predator/prey) * Parasitism * Mutualism * Stewardship   8.P.2.1  Explain the environmental consequences of the various methods of obtaining, transforming and distributing energy.  8.P.2.1 Explain the implications of the depletion of renewable and nonrenewable energy resources and the importance of conservation.  *Eighth Grade Language Arts Common Core Standards*  SL.8.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others’ ideas and expressing their own clearly.   * Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. * Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed. * Pose questions that connect the ideas of several speakers and respond to others’ questions and comments with relevant evidence, observations, and ideas. * Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented. |
| **Materials Needed** | **Materials needed**   * Sufficient copies of the Scenario sheet (one per student) * Sufficient copies of the Scoring Sheet (one per student)   **Technology Resources**   * Internet-connected computers for students research of topics * LCD projector, interactive whiteboard, and/or document camera for teams to display materials to other team and audience members |
| **Participant Prior Knowledge** | Students should be familiar with the vocabulary and concepts of food webs, stewardship, and resource management. Consider assigning passages from a textbook or news source to provide an adequate base of knowledge for this activity.  To introduce the idea of a “win-win” outcome, consider this Mapping activity from the Conflict Resolution Network: <http://www.crnhq.org/pub/CR%20Trainers%20Manual%202nd%20edition%20/CR%20Trainers%20Manual%202nd%20ed%20pdf%20files/M%208.%20Mapping%20the%20Conflict%202nd%20Ed.pdf>  Also, provide an opportunity for students to collaboratively establish Group Norms or “Ground Rules” to govern their interaction. If you have completed the “Making Your Point Without Making An Enemy” lesson from this series, use the student-generated rules for respectful discussion. |
| **Facilitator Preparations** | Gather information resources that will provide information (both biased and unbiased) about the positive and negative impacts of urban and suburban development. Also, collect information about the advantages and disadvantages of environmental protection regulations, such as:  **Pro**: Limits on use help extend the life of natural areas, protections against mining/lumber use protect resources that belong to everyone, Limits on consumption of some renewable resources ensure their ability to renew, disincentive to pollute in public areas or where the impact falls on public areas  **Con**: Compliance increases costs for businesses which can stifle economic growth, prevent fair competition with other countries, and increase prices for consumers; Loopholes may result in little or no improvement to the environment; Enforcement is expensive for taxpayers  See the “Websites and Resources” section for more specific suggestions.  Prior to the start of this activity, the teacher should familiarize him/herself with the overall format of this activity as created by the Conflict Resolution Network (<http://crnhq.org>). Consider the size and personality of your class in determining whether to have:   1. Two small teams of 3 members each (best for small classes) 2. Two medium-sized teams of 6 members each (best for medium-sized classes) 3. Four or six small teams of 3 members each (best for large classes)   All other students will be audience members, tasked with observing, asking questions, and scoring the “resolvers”. |
| **Learning Outcomes** | Students will explore the competing interests of commercial land development and environmental protection and experience the difficult decisions that must be made by those in public service in this regard. This exploration will utilize a modified debate format, and develop conflict resolution strategies simultaneously. At the conclusion of this activity, students will write a statement describing the final decision and the process of compromise that led to it. The statement will also communicate the struggle to reach consensus with issues of great import. |
| **Activities** | *Exploration*   1. Handout Scenario sheets to every student. Allow them time to read it, and then answer questions that they may have. Try to maintain a neutral stance on the issue and provide equitable support for each side. 2. Ask students to consider which side they favor at this point. Ask them to stand and move to one side of the room to indicate strong agreement with that side of the issue (e.g., Development) or move to the other side of the room to show strong agreement with that side (e.g., Environment). Those undecided should stay toward the middle of the room. *Note:* Many will likely move toward the Environment side and many more will likely stay with their friends. This is not a problem at this stage.   *Model System*   1. Divide the class into two equal-sized groups. Randomly assign one group to each side of the issue (Pro-Development and Pro-Environment). 2. Provide each group with sufficient time and guidance to formulate questions about the advantages and disadvantages of their side of the issue. For example, “What are the ways that land development hurts the environment?” or “Are there cities that are environmentally responsible?” or “Which is more important: places to live or open spaces?” 3. *Optional:* You may choose to further split each side into a “pro” group (that researches supportive facts) and a “con” group (that tries to predict the arguments of the other side). 4. Next, students must collect information and references to support their own claims or refute the expected claims of the other side. Provide time in class, and access to informational resources such as books, newspapers, magazines, and websites. While students are working, provide “quick break” times when students stop their work and provide feedback on their progress. You can ask, “Share one thing that you’ve encountered so far that has surprised you”, or “Give me one word to summarize what you’ve learned today”. 5. On the second day of the lesson, ask each side to choose its strongest three students to represent them in the “resolution”. Ask them to designate the three as: Conflict-Resolver 1-Analysis, Conflict-Resolver 2-Options, and Conflict-Resolver 3-Solutions. 6. Give teams instructions about what each team member is responsible for presenting (from the Conflict Resolution Network’s website):  * Conflict-Resolver 1: Analysis   + Clearly state the conflicts seen from your team's point of view.   + Clearly state your team's needs and concerns around these conflicts.   + Don't offer solutions at this stage. * Conflict-Resolver 2: Options   + Present the options and describe how they meet your team's needs and concerns. Be objective; don't be for or against any one option. Respond as a Conflict-Resolver to the points made by earlier speakers. * Conflict-Resolver 3: Solutions   + Put forward your team's solutions or action plan.   + Say why your suggestions work best for everyone, and deal with any problems.   + Respond to earlier speakers on both teams.  1. Provide sufficient time for each team of three to prepare. During this time, instruct your audience about proper conduct. 2. Review the Scoring Sheet with both team members and audience members. Team members should become familiar with the behaviors that will reduce their score (Fouls) and those that will improve it (Criteria). 3. Choose a team to go first and then moderate the ensuing “back and forth” discussion between the teams. Each team member should be allowed to speak once, in order. 4. Once each has spoken, allow audience members and other team members to ask clarifying questions. 5. Allow the audience members time to complete their assessment via the Scoring Sheet. The teacher, as facilitator, should also complete a Scoring Sheet for each team.   *Content Wrap-Up*   * + 1. Before moving on, ask students to express their thoughts and opinions of the Conflict Resolution Game (which is really not a game, but a structured discussion) as a process for finding compromise. Ask questions such as: * Do you feel differently about this topic than you did when we began? How? * Do you think that this process is, in any way, better than a traditional debate? In what way? * How do you feel about the members of the other team now? Is this different than you felt at the start? Why the change?   + 1. Evaluate responses by writing them on the chalkboard, whiteboard, easel, or under a document camera for all to see. Ask students to write a short summary in their notebooks.   **Guided Practice**   1. Ask students to brainstorm a list of other topics that might benefit from the Conflict Resolving Game. Discuss these topics as a class. 2. Discuss the obstacles to this style of conflict management, including the culture of win-lose. |
| **Assessment** | To assess their understanding of the conflict resolution model and the issues of land use and environmental stewardship, student must write a 2-3 paragraph essay describing the best solution to the problem. Each student must include concrete examples and carefully illustrate both sides of the issue.  *Rubric*   |  |  |  | | --- | --- | --- | | Proficient | Developing | Novice | | Clearly explains both the problem and the mutually agreed-upon solution. Uses evidence from various factual sources that are cited. Provides context by including information from both sides of the controversy. | Essay is somewhat one-sided and does not provide sufficient support via details or sources. | Sources are not given and/or no supporting evidence is provided. | |
| **Critical Vocabulary** | *land development*: making an area of land more useful  *economic development*: sustained, concerted effort of [policymakers](http://en.wikipedia.org/wiki/Policymakers) and [community](http://en.wikipedia.org/wiki/Community) to promote the [standard of living](http://en.wikipedia.org/wiki/Standard_of_living) and [economic health](http://en.wikipedia.org/wiki/Economic_expansion) in a specific area  *sustainability*: of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged  *stewardship*: the careful and responsible management of something  *renewable resources*: any natural resource (as wood or solar energy) that can be replenished naturally with the passage of time |
| **Modifications** | Alternatively, this entire activity could be completed online using a discussion tool such as Voicethread (<http://ed.voicethread.com>). Sufficient time and computer resources must be allowed.  For academically gifted students, consider requiring research of both sides of the issue, and randomly assigning them to the Pro or Con group. Also, consider presenting them with a new controversy (e.g., SuperFund cleanup of industrial waste site and whether this is an appropriate use of taxpayer money) and letting them complete some or all of the process above.  For students who are performing below grade-level, consider providing more structure and detail and skipping over the research step. Students can be asked to use provided research information and become familiar enough with it (by discussing it within their group) to complete the Conflict Resolution Game. |
| **References** | *Conflict Resolution Network* ([http://www.crnhq.org](http://ed.voicethread.com))  Organization that developed the overall format of this lesson, the Conflict Resolving Game  *ProCon.org - Climate Change* (<http://climatechange.procon.org>/)  This information site supports debate organizations with tons of linked information from both sides of an issue. This page about climate change has some useful information related to land use and environmental stewardship.  *Siemens - Sustainable Cities* (<http://www.usa.siemens.com/sustainable-cities/index.html?stc=usccc025113>)  This site brings together great information about the ways that urban centers can cause less of a direct impact on the environment.  *Sustainable Land Development International* (<http://www.sldi.org>/)  Trade group that supports responsible development of urban and suburban areas  *Environmental Defense Fund* (<http://www.edf.org>)  Environmental group that educates and informs the public and lobbies legislative groups for environmental stewardship |
| **Comments** | This lesson is the third in a four-lesson unit designed to teach collaborative skills within the context of the 8th grade science curriculum, culminating in a Project-Based Learning activity that involves a partnership with a foreign classroom. |
| **Author Info** | Paul Cancellieri is a middle school science teacher at Durant Road Middle School in Raleigh, North Carolina.  He spent several years as a marine biologist before realizing his passion for teaching and transitioning to education in 2001.  He earned his National Board certification in 2007, and a Kenan Fellowship in 2010. |