## Cooperative Learning Activities

(Information taken from the seminar “Active Learning: The Amazing Effects of Group Learning” by Michael J. Pavelich, Colorado School of Mines)

<table>
<thead>
<tr>
<th>Name of Activity</th>
<th>Objective</th>
<th>Examples</th>
<th>Procedure</th>
</tr>
</thead>
</table>
| Think/Pair/Share                  | To engage class with the material on an individual level, in pairs and finally as a large group | To organize prior knowledge, brainstorm questions, summarize or integrate new information | --Individually reflect on and write brief notes in response to a question (1 minute)  
--Pair up with someone sitting near you and share answers (2-3 minutes)  
--Instructor randomly chooses a few pairs to give 30-second summaries of individual or joint answers (3-4 minutes) |
| Question & Answer Pairs           | To engage students individually with readings then pair to answer questions | To increase motivation to read before class; to deepen the level of analysis of articles; to practice explaining difficult concepts | --Students read assignment before class and compose one or two questions about it  
--In class, students pair up. Student A asks his/her question and student B responds. Then they trade with student B’s question.  
--Instructor may ask students to turn in their questions and summary answers |
| Note Checking Pairs               | To engage students with their notes during class                          | To integrate notes on new material with previous material; to clarify major and minor points; to increase accuracy in note-taking | --At the end of a lecture segment, students pair up to complete a task with their notes. For example, they could summarize the three major arguments, choose the most important ideas which will be on the exam, check the accuracy of information, use the notes to solve an example problem, etc.  
--Instructor may ask students to turn in their work |
| Planner/Coach                     | To give students guidance during planning activities                      | To help one another plan the approach to solving a complex problem, outline a report, or design a research project | --Students pair up and decide who will plan first  
--Planner does task, talking it through while writing notes. Planner asks for feedback and advice from coach. Coach encourages planner to give best effort  
--When time is up, planner and coach switch roles |
| Simultaneous Explanation Pairs    | To engage all students through answering questions and discussion          | To increase correct use of jargon, to deepen the level of analysis, to practice explaining difficult concepts | --Instructor prepares question(s) in advance  
--In class, students pair up and construct an answer together  
--Instructor may ask students to turn in their answers |