Project Title: Team #: _____ School: _____ The Computational Science Process Team Members: ____ 2. Develop an idea Scientist: for a Working Model Select 1 floor plan. Decide on # of . Select a Real World Problem: 3. Select Mathematical people, # of exits, the obstacles, the or Agent-based Model characteristic behaviors of the people, and characteristic How to design a building so We decided to use an agentbehavior of the environment Represent Research people can escape in the case based model because we felt it including the fire. Then collect & & of a fire. was important to model the data on how many people get out Simplify **Explain** people's behavior. safely in one minute. (From steps #1 & #2 you can write * If you cannot talk about *your abstract)* your model, do not move on to the next step. * If no data could be collected Translate from a model like this, go Into Does the data back to step #1. Code describe the real world phenomena 4. Design & Implement 6. Analyze the Data the Computational Model. Our data shows that all of the 5. Run the Computational Model to setup people can exit this building setup-environment We will run the model with 100 people and 5 safely when there are at least 7 setup-agents exits 25 times and find the average number exits. Each time you reduced the **Produce** Setup the end of people that exit the building safely within number of exits by 1 (below 7), **Experiments** Data 1 minute. Then we will increase the number we found that another 15% of the to go of exits by 1 and run the experiment 25 more people got stuck inside the run-model building. times. In each subsequent set of 25 runs, capture-data we will increase the number of exits in the end building by 1 until we get up to 10 exits * If the data doesn't make in the building. sense, go back to step #4.