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| **In-class activity 1 (Individual working w/ group): Prepping the Model (due end of class 9/13)** | | | | | | |
| **What properties are needed/not needed for the model? For each property of the food, give reasoning as to why.** | | | | | | |
| Food Property: | Why Is/Is Not Used: | | | | | |
| **For each property where a range or raw data is given, how do you intend to address this in the final model? For each property listed please give reasoning as to why you are choosing your current strategy.** | | | | | | |
| Food Property: | How will you use or address? Why? | | | | | |
| **Are there any properties of the food that are needed that are not given in the problem statement? If any, please justify why it is needed and what source you will obtain it from.** | | | | | | |
| Food Property Needed: | Why is it needed? | | | Why did you use the source you did? | | |
| **What assumptions will you make to solve the problem? For each assumption explain why you made the assumption and what it may limit about your model.** | | | | | | |
| Assumption(s): | | | Why did you choose? | | | What will this limit? |
| **The mathematical equations necessary to solve the problem. For each equation please explain why it was chosen and any assumptions your model will make about the equations. Please list all equations necessary. Feel free to use the course textbook or online materials.** | | | | | | |
| Equation Needed: | | Why is this needed? | | | What assumptions does this equation make? | |
| **What computational technique will you use to solve the system? Explain why this technique was chosen, what the benefits are, and what the limitations are. (For example, implicit finite difference, explicit finite difference, finite element method, Crank-Nicolson method, Monte Carlo method, etc).** | | | | | | |
| Computational technique chosen:  What are the benefits of this technique?  What are the limitations of this technique?  Why did you choose this technique over alternatives? | | | | | | |
| **Please show how you intend to combine the properties, equations, assumptions, and numerical techniques in your final solution (provide a “roadmap” of how you believe you will solve the problem). Feel free to include diagrams, drawings, or maps.** | | | | | | |
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