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| **Day in Unit** | **Main Activities** |
| Day 1 | **Introduce Unit**   * Review nitrogen cycle, photosynthesis, and various farming methods. * Assign groups and distribute design logs. * Introduce debate and research paper. * Groups sign up for farming method to focus on for debate and research paper. |
| Day 2 | **Debate Research**   * Research debate and paper topic for selected farming method. * Computer lab may be needed for this day. |
| Day 3 | **Debate**   * Groups debate with paired group. |
| Day 4 | **Introduce Aquaponics**   * Overview of aquaponics * Groups explore and discuss materials. * Review safety procedures. * Students turn in research papers. |
| Day 5 | **Aquaponics Design**   * Brainstorm and record aquaponics system ideas. * Discuss system designs with partnering group(s). Vote on best design for construction if groups are combined. |
| Day 6 | **Fish & Plants**   * Research best types of fish and plants to be used in aquaponics systems.   Computer lab may be needed for this day. |
| Day 7 | **Selecting Fish & Plants**   * Present best types of fish and plants to use for the aquaponics systems. * Vote on fish and plants to be used. |
| Day 8 | **Construction day!**   * Students gather materials and construct aquaponics systems. |
| Day 9 | **Construction day!**   * Students should finish construction. * Those finished should start cycling water with nitrifying bacteria. |
| Day 10 | **Reflection day!**   * Assess and plan the redesign of systems to improve overall effectiveness. * Complete design logs, connecting engineering task to goals. |

*Outline of the unit’s day-to-day’s activities.*