**Worksheet 1: Dirt? Who needs it?**

**Directions:**  Before reading, in the first column, write “A” or “D,” indicating your agreement or disagreement with each statement. As you read, compare your opinions with information from the article. In the space under each statement, cite information from the article that supports or refutes your original ideas.

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| --- | --- | --- |
| **Me** | **Text** | **Statement** |
|  |  | 1. Hydroponics is the fast growing field in agriculture.
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|  |  | 1. People have been growing plants without soil for about a hundred years.
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|  |  | 1. The solutes in a hydroponic solution include nutrients such as copper, calcium, and potassium.
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|  |  | 1. Plants require only sunlight and water to grow.
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|  |  | 1. The nutrients plants need in small amounts are called micronutrients.
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|  |  | 1. The pH of a hydroponic solution should be slightly basic.
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|  |  | 1. Ions that have precipitated out of solution are unavailable cannot be taken up by plant roots.
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|  |  | 1. Most people can easily taste the difference between hydroponically grown tomatoes and those grown in soil.
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|  |  | 1. The term “hydroponics” was coined by Walt Disney for the hydroponic garden at Disney World’s Epcot Them Park.
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|  |  | 1. Hydroponic farms require a lot of energy to maintain.
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**Direction:** As you read the article, complete the graphic organizer below to describe what you learned about hydroponics.

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| --- | --- |
| **New things you learned** |  |
| **Ways an understanding of chemistry helps grow plants hydroponically** |  |
| **Questions you have about hydroponics** |  |
| **What would you like to tell others about hydroponics?** |  |