



## Learning Set 1

# What Makes One Rice Different from Another?

Remember that in this Unit you will make recommendations about developing a new rice plant. You already recorded a set of criteria and constraints to help you address this challenge. You know that the rice plant you help develop must produce more rice and more nutritious rice than the plants the farmers are now using.

Not all rice is the same. Scientists are trying to find a plant that will grow rice under a variety of conditions. This way, farmers will be able to harvest enough rice even when the weather is not ideal. With a better rice plant, they will be able to feed their families and have extra to sell in the market. Your next step is to investigate differences in rice and discover what causes these differences.

Begin by reading the following announcement from the research institute.



### Research Announcement

**To:** All Collaborating Scientists

**From:** The Rice for a Better World Institute (RBWI)

**Subject:** Research Update

The scientists at the Rice for a Better World Institute suggest that you begin your research by looking at what makes one type of rice different from another. In our databank, we have stored grains of many different types of rice. All the grains look different, so we can see that they have a variety of traits.

To develop a better rice plant, we need to understand more about their differences. Some, for example, might be more nutritious. Some might require lots of water. Some might require hot weather. Others might grow in dry or cold temperatures. We would like to find out what makes each type of rice different from the others.

We are looking forward to hearing about your investigations of traits among different types of rice. The farmers working on this project can help you by running experiments in the field. They will follow the procedures you describe and send you the results to analyze.

Data from the investigations in the lab and in the field will help you answer any questions you have.