Performance Event

Young Miles was very interested in Science. One day in class he got to see how filtration of salt worked with boiling water. At school he used rock salt and water. He used a filter to separate all of the impurities from the salt. One day at home he decided he wanted to his own experiment. Miles wanted to see if the amount of water used produced more salt. Miles thought that if he used more water to go through the funnel that more salt would travel with the water. Therefore, more salt would be produced. During his experiment he used the same type of filter and boiled the water. After all the water was boiled and evaporated he measured the mass of the salt that was left from the mixture.

1. What was Miles independent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What was Miles dependent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What are two constants in this experiment? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What is Miles testable question?

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1. What would be a reasonable hypothesis from what Miles thought?

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1. What is one scientific tool Miles will need to use? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The following data was collected by Miles. When he used 5mL of water 3g, 5g, and 2g of salt was produced. When he used 15 mL of water 4g, 8g, and 4g of salt was produced. When he used 20 ml of water 10g, 13g, and 11g of salt was produced. When he used 35 mL of water 18g, 20g, and 17g of salt was produced. When he used 45 mL of water 25g, 28g, and 22g of salt was produced. Fill out the data table below and round to the nearest whole number.

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| Trial 1 | Trial 2 | Trial 3 |
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Graph the data using the most appropriate graph. Be sure to include a title, labeled axis with units, and correct numbered scale.

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1. What are the major findings?

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1. What could Miles conclusion be?

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1. Is this considered a fair test? Why/why not?

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Oops!!!

Miles made such a mess during this experiment on his desk. He spilled sand, iron fillings, salt, and water all over his desk. He pushed all of this mixture into a beaker that he had sitting in his desk. Miles remembered that his science teacher taught how you could separate mixtures into separate containers. Unfortunately, Miles forgot and called his best friend (you) to explain how he can separate the mixture he created into separate containers. On the lines below, please explain the methods you could use and how they would work to separate all of the mixture. If you need more room fell free to write on another piece of paper.

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