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**PYP 4 HOW THE WORLD WORKS**

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| **SCIENTIFIC METHOD STEPS** | |
| **Problem :**   * How does……affect…..? | **Problem**  How does the size of the ice cubes impact the speed of ice melting? |
| **Hypothesis**   * I think … * I hypothesize……. * If….. then..… | **Hypothesis**  I think that the smallest ice cube will melt the fastest |
| **Identifying the Variables and Controls**  Independent variable : the variable that is **changed** by scientist  Dependent variable : the variable that is being **measured/observed**  Control Variable : The variable that **is not changed or same** | **Independent Variable** :  Size of ice cubes  **Dependent Variable** :  The speed of ice melts  **Control Variable** :  The salt |
| **Equipment and materials** | **Equipment Materials**  **-1 teaspoon -50g salt for each ice cubes**  **-3 average plastic bowl -3 ice cubes (small, average, big)**  **-1 stopwatch** |
| **Procedure**  a. Procedure steps must be numbered  b. Procedure steps must be in the correct order  c. Procedure steps must include instructions on what to measure and where to record the data.  d. Procedure steps must be written in complete sentences. | **Procedure**   1. Place 1 ice cube in each bowl 2. Put the 3 bowl with the ice cube at a sunny place 3. Sprinkle a teaspoon of 50g salt on each cube at the stopwatch. 4. Start the stopwatch at the same time when you sprinkle the salt at the ice cube. After it melts stop the stopwatch and record at your data table. |
| **Data** –Data is usually written in some kind of **data table**. | **Data**   |  |  | | --- | --- | | **Size** | **Duration** | | Small | 13.48 min | | Average | 23.45 min | | Big | 27.16 min | |
| **Results** – the results are the part of the experiment where you analyze the data. This is where calculations are performed and **a graph** is drawn. | **Results** |
| **Conclusion**  A correctly written conclusion must include all of the following:   1. Written in complete sentences. 2. Responded as to whether your hypothesis was right or wrong. 3. Answered the question written in the problem. | **Conclusion**  Our experiment failed the first time then we tried our experiment again and we succeed.  But my hypothesis was correct that the smallest ice cube would melt fastest. |

How is the experiment important to the human life?

It’s important because it can make ice melt in the road so transportation could cross the road.

How is the experiment support human in their daily life?

It support so people know where to walk at the road because if there is snow, people can’t know where is the path leads to somewhere they want to go.

The more bigger the ice cube is the more amount of salt we need to melt the ice cube.