

Name \_\_\_\_\_

## Scientific Investigation Worksheet

**Step 1 – Question – What do you want to know . . . .**

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**Step 2 – Prediction – What I think will happen . . .**

If I \_\_\_\_\_  
refer to variable you will change

then I predict \_\_\_\_\_  
refer to variable you will measure

**Variable I will change** \_\_\_\_\_ temperature of water \_\_\_\_\_

**Variable I will measure** \_\_\_\_\_ time to dissolve

**Variables I will keep the same**

- \_\_\_\_\_ size cups, amount water in each cup, amount stirring, size of sugar cube, \_\_\_\_\_

**Step 3 – Materials – What I will use . . .**

- 2 cups
- hot and cold water
- sugar cubes
- spoon
- watch for a timer
- \_\_\_\_\_

**Step 4 – Procedure – The steps I will take . . .**

1. fill cup with hot and another cup with cold water
2. when given the signal to start, put a sugar cube in each cup
3. watch sugar cubes and notice what happens over time (record observations below)

**Step 5 – Data collection (my observations during the experiment):**

|        | cold | hot |
|--------|------|-----|
| Time 0 |      |     |
| Time 1 |      |     |
| Time 2 |      |     |
| Time 3 |      |     |

**Overall Results - What was observed using multiple trials from the class?  
Record the number of times the sugar cube dissolved first in:**

**Hot water:** \_\_\_\_\_

**Cold water:** \_\_\_\_\_

**Step 6 – Conclusion**

My prediction \_\_\_\_\_  
(state prediction)

was \_\_\_\_\_  
(Supported or not supported by the data)

**Concluding statement:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
(provide evidence for your conclusion: Convince me!)