**Appendix**

**Figure A1**

*Chat Template*

|  |  |  |  |
| --- | --- | --- | --- |
| **PST Playing Teacher:** | X | **Chat time:** | X |
| **PST Playing Student:** | X | **Student:** | X |

|  |  |
| --- | --- |
| Role | Chat text |
| Teacher | X |
| Student | X |
| Teacher | X |
| Student | X |
| Teacher | X |
| Student | X |
| Teacher | X |
| Student | X |
| Teacher | X |
| Student | X |
| Teacher | X |
| Student | X |
| Teacher | X |
| Student | X |

**Figure A2**

*Example of Completed Template*

|  |  |  |  |
| --- | --- | --- | --- |
| **PST Playing Teacher:** | Tricia (pseudonym) | **Chat time:** | 7 minutes |
| **PST Playing Student:** | Shanae (pseudonym) | **Student:** | Dana |

|  |  |
| --- | --- |
| Role | Chat text |
| Teacher | Hi Dana! what did you notice when completing the paper experiment? |
| Student | I noticed that the paper changed into three forms. |
| Teacher | What did you notice about each papers weight? |
| Student | They all weighed 4.6 grams |
| Teacher | What do you think that means about the conservation of matter? |
| Student | I think that the water’s matter was conserved. |
| Teacher | Why do you think that? |
| Student | I think because they all weighed the same, so the matter stays the same. |
| Teacher | Great! Let’s move on to the water experiment! What did you notice about the water before and after freezing it? |
| Student | The unfrozen water was 390.5 grams and the frozen was 390.5 grams. |
| Teacher | That’s great! did you notice any difference of the water? |
| Student | Yes the form of water. No when talking about weight. |
| Teacher | Can you explain more? Did you notice a change in what the water looked like? |
| Student | Yes the water froze but they both weighed 390.5 grams so maybe it didn’t change. |
| Teacher | Did the water level change from where we marked it after being frozen? |
| Student | I don’t remember. |
| Teacher | That’s okay! So the water did raise 1 cm above the bottle label but it still weighed the same. What does that tell you about its matter? |
| Student | It stayed the same because it weighed the same |

*Note.* This example is from the chat shown in Figure 1.