**SUPPLEMENTARY INFORMATION**

In this section the students’ before and after pictures are included to illustrate how students’ experience with the animation treatment and the metacognitive monitoring activity influenced their understanding of the redox reaction event.

Table 5. Students’ atomic level pictures made prior to viewing the animations

|  |  |  |  |
| --- | --- | --- | --- |
|  | At the start | After 8 minutes | After the wire was removed |
| S8 |  |  |  |
| S16 |  |  |  |
| S17 |  |  |  |
| S9 |  |  |  |
| S10 |  |  |  |
| S11 |  |  |  |
| S12 |  |  |  |

Table 6. Students’ atomic level depictions made after viewing animations.

|  |  |  |  |
| --- | --- | --- | --- |
|  | At the start | After 8 minutes | After the wire was removed |
| S8 |  |  |  |
| S16 |  |  |  |
| S17 |  |  |  |
| S9 |  |  |  |
| S10 |  |  |  |
| S11 |  |  |  |
| S12 |  |  |  |