

TABLE 1: Rubric for the Lighting Up History Project.

	Excellent	Satisfactory	Developing	Unsatisfactory
Timeline builder worksheet	The timeline builder worksheet is completed and reflects 5 key events in the person's life.	The timeline builder worksheet is completed and reflects 3 key events in the person's life.	The timeline builder worksheet is only partially completed and reflects less than 3 key events in the person's life.	The timeline builder worksheet is not completed.
Circuit diagram	The circuit diagram is clearly labelled, including polarity of the LEDs and ports on the microcontroller. Positive and negative connections are clearly drawn using two different colors.	The circuit diagram is only partially labeled. One or more key aspects are missing. Positive and negative connections are drawn using the same color.	The circuit diagram is minimally labeled. Two or more key aspects are missing. Positive and negative connections are missing or incomplete.	The circuit diagram was not completed or completed without attention to labelling and drawing the connections.
Circuit construction	Group members worked together to create a functional timeline while adhering to safety precautions. The timeline had LEDs representing 5 key events.	Group members worked together to create a functional timeline while adhering to safety precautions. The timeline had LEDs representing 3 key events.	Group members did not work as well together as they could have and/or safety precautions were not followed. The timeline had at least 2 LEDs representing key events.	Group members did not work together and did not follow safety precautions. One or fewer LEDs representing key events is present.
Timeline programming	Group members worked together to program the timeline. All LEDs light up in a sequence that represents the sequence of life events.	Group members worked together to program the timeline. Most LEDs light up in a sequence that represents the sequence of life events.	Group members did not work together as well as they could have to program the timeline. Only two of the LEDs light up.	Group members did not work together. The timeline was not programmed or programmed in such a way that the timeline is not functional.
Overall design	The timeline design reflects the life of the person the timeline is about. The artistic design and the circuits are thoughtfully integrated.	The timeline reflects the life of the person the timeline is about. The artistic design and the circuits are thoughtfully integrated, but could be improved upon.	The timeline does not reflect the life of the person the timeline is about as well as it could. The artistic design and the circuit design are not as well integrated as they could be.	The timeline design does not reflect anything related to the person it is about. There is no artistic design and/or circuits are completely missing.