Name: Date: Class:

Exit Ticket Student Samples

Q1. What materials in your model helped marbles flow easily? Why?

tape; cardboard

Q2. What does a marble getting stuck or slowed down represent in a real memristor?

impurities in the material that are similar to roadblocks

Q3.Why do scientists test different materials when designing electronics like memristors?

to find effective and accurate ways to achieve the goal

Q4. What did you change between your first and last design, and what was the result?

began with no roadblocks and continued adding/adjusting until the time was right

Circle Yes or Not Yet in response to each prompt:

I can explain what a memristor is. (Yes) / Not Yet

I can describe how scientists design materials using computers. (Yes) / Not Yet

I can model a scientific idea using everyday materials. (Yes) / Not Yet

Name: **Date:** **Class:**

Q1. What materials in your model helped marbles flow easily? Why?

- Flat surface / cardboard
- Bendable and cuttable straws

Q2. What does a marble getting stuck or slowed down represent in a real memristor?

regulating the flow of electrons

Q3. Why do scientists test different materials when designing electronics like memristors?

Durability, Efficiency, Depends on the parameters, and the desired outcomes

Q4. What did you change between your first and last design, and what was the result?

we made the straws closer together to preserve space

Circle Yes or Not Yet in response to each prompt:

I can explain what a memristor is. Yes / Not Yet

I can describe how scientists design materials using computers. Yes / Not Yet

I can model a scientific idea using everyday materials. Yes / Not Yet

Name: **Date:** **Class:**

Q1. What materials in your model helped marbles flow easily? Why?

Steep slopes made from stones and the cardboard surface

Q2. What does a marble getting stuck or slowed down represent in a real memristor?

Impurities in the material meant to regulate the flow of electricity

Q3.Why do scientists test different materials when designing electronics like memristors?

Because different materials have different outcomes and some are more effective than others.

Q4. What did you change between your first and last design, and what was the result?

We began our first design with no confidence and found the original flow, and added more obstacles as the ball until the last over 3-5 seconds; we then raised the slope of our roadblocks. This affected our overall time.

Circle Yes or Not Yet in response to each prompt:

I can explain what a memristor is. (Yes) / Not Yet

I can describe how scientists design materials using computers. (Yes) / Not Yet

I can model a scientific idea using everyday materials. (Yes) / Not Yet