

Name: \_\_\_\_\_

Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Student Sheet 11.1

### Forces on a Cart on the Inclined Plane

**Directions** Complete this sheet as directed in the Procedure for Inquiry 11.1.

1. Write the prediction that you will test in Procedure Step 8.
2. Write your design plan to test your prediction.
3. Design a table in which you can record your data. Give the table a title. Draw the table in this space.

**(continued)**

## Student Sheet 11.1 (continued)

4. Include any other ways you can think of to display your data here.

5. Write a conclusion based on your data.

Name: \_\_\_\_\_

Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Student Sheet 11.2

### What Is the Work Done Using an Inclined Plane?

**Directions** Complete this sheet as directed in Inquiry 11.2.

1. Load force \_\_\_\_\_ Load distance \_\_\_\_\_ Work to lift cart \_\_\_\_\_
2. Would the work you do pulling the cart up the incline be more than, less than, or the same as the work needed to lift the cart 0.10 m straight up? Record your prediction and explain your reasoning.
3. How does the work to move the cart with the effort force compare with the work done by the load force when the incline is set in the seventh hole?

**Table 1 Calculating Work Along an Inclined Plane**

Slope	Effort Force (EF)	Effort Distance (ED)	Work (EF × ED)

4. How does the work needed to pull the cart up the inclined plane set at different slopes compare with the work needed to lift the cart straight up?