

Name: _____ Date: _____ Cohort: _____

Day 1:

What is the purpose of a zipline?

Day 2: Fill in the blanks:

The Engineering Design Process allows you to create a successful _____.

1. A constraint is a _____
2. In order to successfully create a prototype, you must understand the _____

Classwork: You and your group have been hired by Heights Adventure Team to design a zipline that can transport your favorite animal from the height of your table to the floor. The animal must be transported to the zoo at the bottom of the zipline safely.

Problem: You have limited time (15 minutes) and money. You have a budget of \$100. You must use at least three materials below.

Calculate the cost of your zipline:

***Remember:** Quiet, productive groups will earn a raise. Noisy, off task groups will be fined \$25 each time they are redirected.

Paper Clips	Styrofoam Cups	Plastic Cup	Binder Clip	Aluminum Foil	Wire
\$10 each	\$25	\$50	\$10 each	\$5 a sheet	\$20 a foot
Total Spent	Total Spent	Total Spent	Total Spent	Total Spent	Total Spent

My group spent _____ dollars. We have _____ dollars remaining.

Create a sketch of your zipline and include the steps involved to create the zipline.

Reflection: After creating your zipline, how were you successful in creating your prototype. Discuss strengths of your design. What are weakness? How did you overcome the weakness?