

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

## Let's Get It There Fast! Activity – Worksheet

### Part A: Directions

1. Choose two different departure and arrival cities in the United States to ship goods between. Find two cities that are close together (Distance 1) and two that are far apart (Distance 2) and write that distance in the corresponding table below.
2. Use a map to determine the distance in miles between the two cities and record the information in the table below. Write the item to be transported in the table below.
3. Calculate how long it will take to transport the item to one of the cities. Use the following formula:

$$Time = \frac{distance}{speed}$$

Example: If I choose to ship cars from Los Angeles, CA to New York, NY (2,788 miles) by train, I would check the train column and calculate the time required for transport.

$$Time = \frac{2788miles}{50mph} = 55.76hours \approx 56hours$$

However, if I were going to send cars from Denver, CO, to Boulder, CO, I would probably use a truck. How would this affect the time?

**Table – Part A:**

Departure City 1 _____ Arrival City 1 _____ Distance 1 _____ Item _____	Departure City 2 _____ Arrival City 2 _____ Distance 2 _____ Item _____
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Distance 1	Mode of Transportation	Speed of Transportation	Time to Arrive at Destination
	airplane	500 mph	
	truck	65 mph	
	train	50 mph	

Distance 2	Mode of Transportation	Speed of Transportation	Time to Arrive at Destination
	airplane	500 mph	
	truck	65 mph	
	train	50 mph	

### Part B: Directions

Fill in the chart below by writing in the distance to travel, how you would suggest transporting each item (airplane, truck, or train), how long to arrive at your destination, and why you would chose that mode of transportation.

Distance 1: \_\_\_\_\_

Cargo	Mode of Transportation	Time to Arrive at Destination	Why?
Shoes			
Medicine			
Cars			
Lumber			
People on Vacation			
Produce			
Fresh fish			
Mail			

Distance 2: \_\_\_\_\_

Cargo	Mode of Transportation	Time to Arrive at Destination	Why?
Shoes			
Medicine			
Cars			
Lumber			
People on Vacation			
Produce			
Fresh fish			
Mail			

### Part C: Directions

Answer the following questions:

1. What items would you ship by airplane and why? What type of aviation is this?

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2. What items would you ship by train or truck ?

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3. Why didn't you ship these items by airplane?

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4. Where there any items that you might transport one way to cities close together and a different way to cities that were far apart? If so, why?

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5. What are some other things to consider (besides how fast something travels) when calculating how long it will take to ship something from one city to another?

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6. What happens if a plane tries to fly with too much weight?

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7. The four forces that act on an airplane are shown below. Circle the force that is affected by the weight of an airplane.

