

### Launch Task: (Goal time-Maximum of 6 minutes)

Present this story to students: Last week I went to the store to get a gallon of milk, 2 dozen eggs, 2 loaves of fresh bread, and 3 boxes of pasta. (Scribble this onto the board.) The problem was, I forgot my wallet, but I had \$12 in my jacket pocket. (Write \$12)

Ask:

- Can I purchase everything I wanted to buy?
- What option did I have with my \$12 budget (constraint)?
- What information do you need to figure this out?

[Students may say you need to know what each item costs.]

Teacher: Why is the cost important?

Students: Answers

Teacher: Oh! Right. That makes sense (if it does!).

Write the items/\$ below on the board as you talk. Consider using a shortened form of the words to model; we don't need to write it out perfectly to work through this problem. Just keep it organized so your group can remember what your group was doing.

Milk-1 Gallon \$6.

Eggs-1 Dozen \$4

Bread-1 Loaf \$2

Pasta-1 box \$1

**Get at least 2 options from students.** Write their ideas on the board (use shortened form of words to model we don't need to write these words out perfectly to solve this problem.) Model how you/students are checking if the math works out.

Teacher: "Great, we have some good ideas here that do not go over my \$15 budget."

Explain the students' task:

Today you and your math partners have arrived in Independence, Missouri. You need to pack your wagon to travel west. You realize that there are some constraints (limits) about what you can and can not purchase (buy). You can't always get everything you want, and sometimes you don't even have enough money to purchase all of the items you will need. You have to make some choices. And there may be some disagreements about what is most important. Some choices are going to be very challenging. Your job today is to figure out what **POSSIBILITIES** are available to your wagon group. You will have several answers to each problem

because you are not making the exact choices today. You are only looking at possibilities just like we did with my shopping experience. (Direct students to the different possibilities they gave for the market example.)

Next: (This should be on a slide.) Post the Independence General Store List on the Board. Notice that there are words and numbers. The words tell you what **items** are available. Pay attention to the **headings**. And the numbers represent how much the items **cost**.

1. Your first task is on page 3 below for the entire list of tasks in the thin-slice task.
2. Each group needs a copy of Independence General Store (p. 4).
3. Hand out color cards and have the students get into random groups of 3 and begin the first problem.
4. Have consecutive problems ready to go.

**What to look for: (I would like more mathematical questions below. I just haven't come up with them yet!)**

- Are students thinking about the budget? (Total amount they have available.)
- Are students recording the items like an art project or are they thinking of ways to notate that make sense without being perfect?
- Are students paying attention to the headings?
- How are students making their decisions?
- Are students paying attention to place value?
- How are students solving for total cost: By subtraction, addition, multiplication?

- 1) You and your wagon group need to purchase some personal items. You have \$20.
  - a) What combinations of items could you purchase?
  
- 2) You and your wagon group need to purchase tools. You already have a metal plow. You have \$30 left to spend.
  - a) What combinations of items could you purchase?
  - b) What will be the most important items to purchase?
  
- 3) You and your wagon group need to purchase food items. You have \$120.
  - a) What combinations of items could you purchase?
  - b) What do you think are the most important food items you will need?
    - i) Can you afford them?
  
- 4) You and your wagon group need to purchase household items. You have \$150.
  - a) What combinations of items could you purchase?
  
- 5) You and your wagon group need to purchase some miscellaneous items. You have \$200.
  - a) What combinations of items could you purchase?
  - b) What do you think are the most important miscellaneous items you will need?
  
- 6) You and your wagon group meet a family who just arrived at Independence General Store. They have not purchased any items yet. They have \$500.
  - a) What would you recommend for this family to purchase?
  
- 7) Your cousins just arrived in Independence, Missouri. They are running late for their wagon train, and they are not feeling well. They need to make some quick choices. They have \$1500, and they ask you to get what you think they will need during their journey. What items would you purchase, and how many of each item without going over their \$1500 budget?

# INDEPENDENCE GENERAL STORE

We have everything you need for heading west!

All items are priced according to its "Bulk Weight Unit" or BWU. One dollar is equal to one BWU. An item with a higher amount may be heavier, or it will take up more space in your wagon than the other items. If an item has a lower amount, it is lighter or it will take up less space. Be sure to pack enough food for your family and animals, clothing, tools to repair your wagon, and especially water. It is wise to purchase what you need for your occupation because those supplies might not be available at forts along the way, or in your desired destination out west.

\$/BWU		\$/BWU	
HOUSEHOLD ITEMS			
baby cradle	1 5	family Bible	5
bed	3 0	family heirlooms	2 0
bed pan	2	lantern	3
bedding for 1 bed	1 2	loom	3 5
blanket	7	match bottle & matches	2
butter churn	0	material/fabric- 15 yards	1 2
butter mold	2	metal pail	4
candle sticks - 1 pair	1	mirror	1 0
candles - 5 small	2	needle & thread	1
chest for clothing	3 5	piano or small organ	9 0
clock	5	pitcher & bowl	1 0
coal oil- 1 gallon	1 2	plants	1 0
coffee grinder	6	rocking chair	1 5
coffee pot	3	rug	2 5
cooking pan	6	spinning wheel	2 5
cooking stove	1 0	stool	8
cooking utensils set	4	table & 4 chairs	5 0
dishes - 1 family set	2 0	wooden bucket	5
Dutch oven	1 0	woven basket	5

TOOLS			
2 man cross-cut saw	7	hatchet	4
animal traps (steel)	5	hoe	4
anvil	1 3	metal plow	4 0
axe	7	oxen yoke repairs	5
axle grease	1 3	pick axe	5
axle repairs	8	pitch fork	6
bellows for fire	1 0	rope - 100 ft.	6
corn sheller	5	scythe & sickle	1 0
fishing supplies	4	shovel	7
grain cradle	1 0	tool assortment	1 0
grinding stone - large	2 0	twine - 50ft.	5
hammer	2	vise	1 8



\$/BWU	
FOOD	
assorted spices	5
bacon - 25 lbs.	3 0
coffee beans - 20 lb.s	2 0
dried beef - 25 lbs.	2 5
flour - 50 lbs.	5 0
fruit tin - 5 lbs.	8
pinto beans - 25 lbs.	2 5
salt - 25 lbs.	3 0
salt pork - 15 lbs.	2 0
sugar - 20 lbs.	2 0
vegetables - 25 lbs.	3 0
vinegar - 5 ga.	2 5

PERSONAL ITEMS	
chaps	8
children's toys	8
clothing bag - 1 person	6
eating utensils - 1 person	2
first aid kit	1 0
guitar or fiddle	6
hunting knife	3
pistol	4
powder horn & keg	4
rifle	6
snow shoes	6

MISCELLANEOUS	
bull whip	2
chicken coop	1 2
feed for 1 type of livestock	3 0
medicine box	1 5
oxen yoke	1 0
saddle and bridle	2 5
seeds - 50 lb. bag	5 0
water barrel - 20 ga.	6 0
wine press	2 5
wood box full of wood	2 5