

Pumpkin Exploration

An Elementary Activity

Pumpkins are fun! Their size and color, smell and taste make them perfect for children's observation and exploration. In this activity students in cooperative groups search, suggest, question, predict, and estimate the number of seeds in a set of pumpkins. They will combine mathematical procedures and scientific observation to learn more about this seasonal delight.

Divide the students into groups of 5 that reflect the diverse abilities of your classroom. Each group will examine 3 pumpkins and record their observations on a chart (see sample below). A local farmer or grocery store may be willing to donate pumpkins for this activity.

	Pumpkin 1	Pumpkin 2	Pumpkin 3
1. How tall?			
2. How big around?			
3. What color?			
4. What is the weight?			
5. How many lines on the outside?			
1st Seed Count (Prediction)			
2nd Seed Count (Estimation)			
3rd Seed Count (Exact Total)			

Brainstorming. To introduce the activity, have the whole class discuss what the pumpkins look like from the outside and what they might look like on the inside. Talk about roasting and eating pumpkin seeds as snacks. If they were going into the grocery store and looking for a pumpkin with many seeds, how would they know which one to choose? The mission: determine what characteristics, if any, would help predict the number of seeds within. Let the students discuss the characteristics of the pumpkins and the various ways they could measure and describe them. Some examples might be: How tall? How big around? What about the color, the shape? What is the weight? Does the number of outside grooves tell anything? What about the smoothness of the pumpkin's skin?

Data Gathering. Individual groups will decide on 5 questions to investigate; each group member is responsible for 1 question. If the group decides to measure the pumpkins, the students can use string to make the measurements, plot the string lengths on a meterstick or yardstick, and translate the findings to

the group's chart.

Prediction and Estimation. When data collection is completed and recorded, each group will predict the number of seeds in the pumpkin and discuss possible connections between the number of seeds and the pumpkins' characteristics. Cut the pumpkins open, scoop out the seeds and pulp, separate the seeds and pulp and let the seeds dry. Each group should estimate each pumpkin's seed total, then count the seeds for an exact total.

Post all the groups' charts and compare the exact number of pumpkin seeds with the predictions and estimations. How different are the totals? Do you need an exact total to plan a snack? What about a farmer who will harvest the seeds of pumpkins in a field? Do pumpkins with similar characteristics have similar seed counts? Do there appear to be any relationships between pumpkin characteristics and the seed counts?

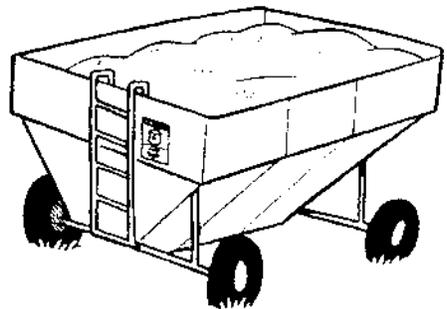
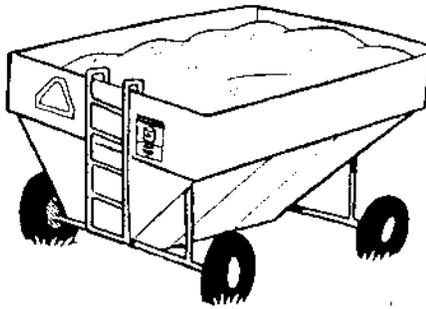
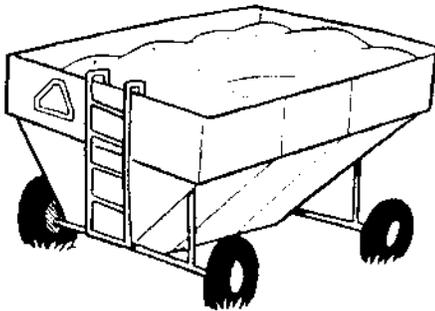
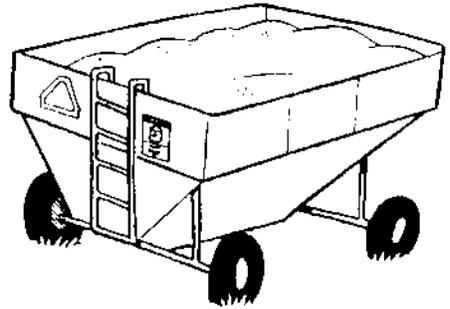
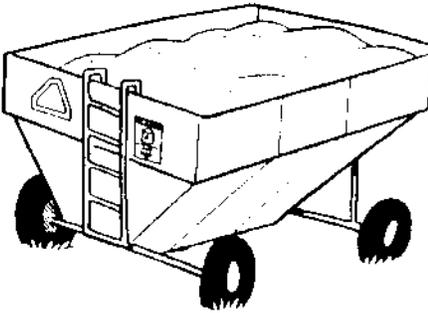
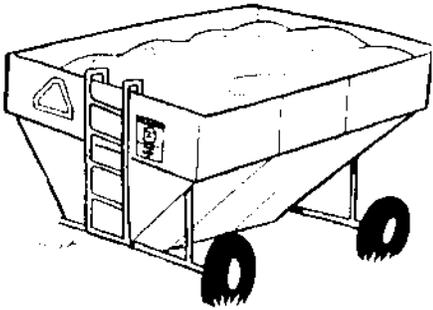
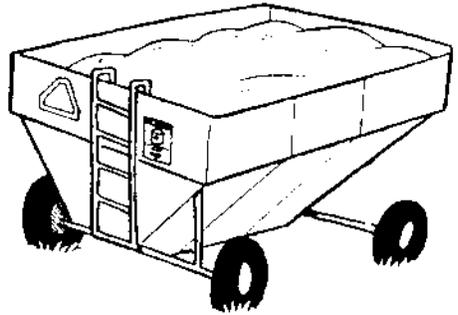
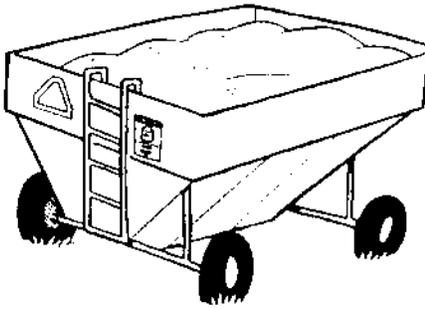
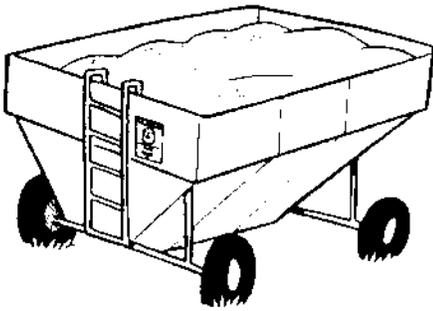
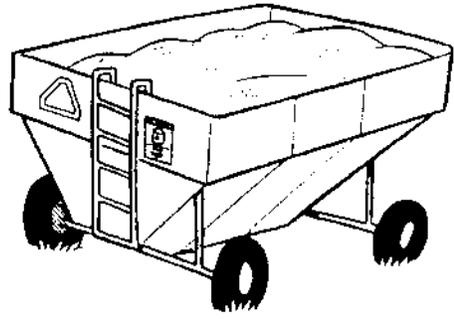
[The Teacher as Facilitator](#)

SCIMAST



What's Missing?

Circle the gravity flow wagon that is identical to this one.



Animal Safety Maze

BE CAREFUL!
Sometimes my mommy
gets angry when
children play around
me.

Help both baby animals find their mothers.

