**I.C.E.**

**I**mage

**C**larify

**E**stimate

Purpose – Have students observe closely before engaging in a problem solving task.

1. What do you see happening in the problem. (Visually)

C. What is unclear? What questions do you have? Is there anything you don’t understand?

E. What question or questions are you trying to answer? What are some reasonable estimates for the answer? What answer do we know is incorrect? What units will the answer be in?

Example Problem Solving Questions to use with I.C.E.

K

Last week a group of friends met as the beach to enjoy the warm weather. 2 friends went by car. 5 friends rode their bikes. 3 friends walked. How many wheels did it take to get to the beach?

1st

Last week at Walk and Roll, 3 students came to school on skateboards. 4 students rode to school on their bikes. 5 students walked. How many wheels took the students to school that day?

2nd

A family has 4 kids.  Joey is 11, Jen is 2, Justin is 6 and Jill is 4.  Their mom bought a box of candles to use for all of their birthdays.  Did she buy enough candles?  How many extra does she have or how many more will she need?  (A box of candles is 24 but I don’t give them the information until they ask for it.)

3rd

My neighbor has a barn with goats and chickens. She has 8 animals in all. I looked under the fence and counted 20 legs. How many goats and how many chickens does my neighbor have?

4th

Ben is building a rectangular corral using 64 feet of fencing. He uses the river on his ranch as one of the sides. How wide and how long should he make the corral to get the largest possible area?

5th /6th

Nick glued together 64 cubes to make one big solid cube. Then he painted all 6 sides of the big cube red. Later, when he broke the cube back down into small cubes again, he found that some cubes had three sides painted, some had two, others had only one painted side, and some had no paint on them at all! How many of each kind of cube did he have?