

3 Act Lesson

Title: Do-the-Dew link: <https://gfletchy.com/do-the-dew/>

Big Idea: multiplying whole numbers by a fraction

Curricular Competencies:

- *estimating reasonably*
- *developing mental math strategies and abilities to make sense of quantities*
- *visualizing to explore mathematical concepts*
- *developing and using multiple strategies to engage in problem solving*



ACT ONE:

Establishing a Need to Know: watch the 9 second clip. After viewing the short clip, invite students to consider:

What did you notice?	What do you wonder?

and jot down the ideas as students share their thinking...

Driving Question: How many cups of sugar are in a case of Mountain Dew?

Estimating: invite students to think of a reason estimate for how many cups of sugar would be too few, and a reasonable estimate for how many cups of sugar would too many for a whole case of Mountain Dew.

A too low estimate:	A too high estimate:

3 Act Lesson

ACT TWO:

What information would be helpful to know for solving this investigation?



Mtn Dew

Type: Bottles, Cans and Cartons

Size: 12 fl oz

Nutrition Info:

Serving size 1 container

Per Container

	12 fl oz	%DV*
Calories	170	-
Total Fat (g)	0	0
Sodium (mg)	65	3
Total Carbs (g)	46	15
Sugars (g)	46	-
Protein (g)	0	0

Not a significant source of other nutrients.

*Percent Daily Values (DV) are based on a 2,000 calorie diet.

Calorie and nutrient values are rounded as required by the Food & Drug Administration. This can produce irregularities among sizes. Product may not be available in all areas.



46 grams of sugar = approximately $\frac{1}{5}$ of a cup of sugar

1 can of Mountain Dew = $\frac{1}{5}$ of a cup of sugar

Students will now work in visibly random teams of three to solve the investigation using one dry erase marker, one eraser and a large vertical non-permanent surface

ACT THREE:

Share the photograph that reveals the solution.

Invite students to communicate their strategies for arriving at the solution for how many cups of sugar there is in a case of Mountain Dew.



Whole Group reflection:

Strengths: What worked (What strategies did you use to work toward a solution)?

Stretches: What was difficult?

Next steps: What would you do differently next time?