

## How Sapphire Computes Grades: *Elementary*

### How does Sapphire calculate grades for elementary students?

- Overall grades are a combination of the averages for formative assessments and summative assessments, weighted at 40% for formal formative assessments and 60% for summative assessments
- The 40% for formative assessments may be split between homework and other formative assessments that are evaluated for accuracy. *Homework cannot comprise more than half of the formative assessment average (meaning it can only account for up to 20% of the overall grade)*

### So then how does Sapphire actually compute the grade?

- The math looks like this:
  - $(FA \% \times .4) + (SA \% \times .6) = \text{Overall grade \%}$
- The math looks like this *if you split formative assessments* so that homework is broken away from the other formative assessments. *Together they may only add up to 40% of the overall grade, and HW can account for no more than half the formative assessment %*
  - $(HW \% \times .2) + (\% \text{ for other FAs} \times .2) + (SA \% \times .6) = \text{Overall grade \%}$

### Can you give me an example?

Assignment	Category	Score	Due Date
Unit 2 Quiz 1	Category: Formative Assessments 30.00% of Grade	5 / 8	10/16/2014
Unit 1 Quiz 3		11 / 11	09/23/2014
Unit 1 Quiz 2		9 / 9	09/15/2014
UNIT 1 QUIZ 1		5 / 5	09/09/2014
Proportion Practice	Category: Homework 10.00% of Grade	3 / 5	10/02/2014
HW-Factor Puzzles		8 / 9	09/12/2014
Unit 1 Test	Category: Summative Assessments 60.00% of Grade	29 / 32	10/03/2014

- Sapphire does the math internally to get an average for Formative Assessments, Homework, and Summative Assessments based on the points earned and points possible **in each category**:
  - $HW \% (11/14) = 78.6\%$ ,  $FA \% (30 \text{ pts earned}/33 \text{ possible}) = 90.9\%$ ,  $SA \% (29/32) = 90.6\%$
- The system computes the overall grade, understanding that in this teacher's classroom, HW counts 10% of the grade, which means other Formative Assessments count 30% and then Summative Assessments count 60%.
  - $(HW \% \times .1) + (\% \text{ for other FAs} \times .3) + (SA \% \times .6) = \text{Overall grade \%}$
  - $(78.6 \times .1) + (90.9 \times .3) + (90.6 \times .6) = \text{Overall grade}$
  - $(7.9) + (27.3) + (54.4) = 89.6 \dots \text{ rounds to } 90\% \text{ in the system}$