

Saving for surfing

Purpose:

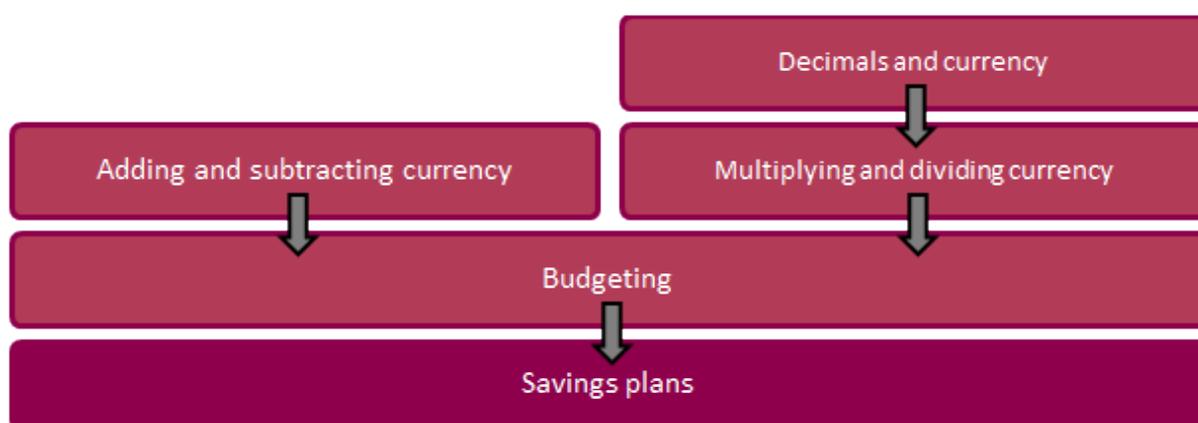
The purpose of this activity is to engage students in using arithmetic and pre-algebra techniques to solve a practical financial problem.

Achievement Objectives:

NA4-2: Understand addition and subtraction of fractions, decimals, and integers.

Description of mathematics:

The background knowledge and skills that need to be established before and/or during this activity are outlined in the diagram below:



Decimals and currency

If a lollipop costs 60 cents, what is this in dollars?

Adding and subtracting currency

If I have \$12.50 in my wallet, then spend \$4.30 on one item and \$6.40 on another, how much change remains?

Multiplying and dividing currency

If Sally gets \$12.50 per week in pocket money, spends half and saves the rest, how much does she save in 8 weeks?

Budgeting

Sam is given \$20 per week to spend on his phone plan (\$19 per month) and on school canteen lunches if when he wants (usually \$5 twice a week). Any change is for saving. How much can he expect to save each month?

Savings plans

Sam is given \$20 per week to spend on his phone plan (\$19 per month) and on school canteen lunches if when he wants (usually \$5 twice a week). Any change is for saving. How long would it take Sam to save for the new smart phone he wants (\$400)?

This activity may be carried out with step by step guidance, or by allowing the student to follow their own method of solution. The student should be encouraged to draw on his/her own financial solutions and innovations, appropriate to the context. The approach should be chosen in sympathy with students' skills and depth of understanding.

Activity:

Kelly really wants to buy a surfboard (\$850), for next summer. When she asked mother about getting a new board ordered, her mum said “No, we can’t afford it”.

Kelly decided to come up with a plan.

Every weekday morning, Kelly either catches the bus (\$5.50) or she walks and gets a hot chocolate (\$4.20) on her way to school. She needs to come up with a savings plan to present to her mother. In her plan, she needs to allow for an average of two bus trips each week in case of bad weather.

Could you suggest a plan for Kelly to present to her mother?



The conceptual approach

The student is able to create, with appropriate calculations and suggestions, a financial plan to solve a problem.

Prompts from the teacher could be:

1. What are Kelly's typical weekly expenses, in getting herself to school?
2. What possible economies could Kelly make?
3. How many weeks could it take for Kelly to save for the surfboard?
4. Suggest possible strategies/plans for Kelly to get the new surfboard she wants.

• If she stops buying hot chocolates.
Saves \$21 per week

• By only catching a bus twice a week she only spends \$11. But if she invest in a umbrella that cost \$10. She will save a total of \$32 a week. Which is \$128 a month minus \$10 for the umbrella, so \$118 first month and \$128 every other month.

Month	1	2	3	4	5	6	7
Money in Total	\$118	\$128 \$246	\$128 \$374	\$128 \$502	\$128 \$630	\$128 \$758	\$128 \$886

It will take her 7 months to save up for the surfboard and have \$36 left over and a new umbrella.