Let's go Shopping

Mathematics and Statistics, Level 1

The Learning Context:

In this unit students are given the opportunity to practice a range of number strategies and apply number knowledge to a simulated real life context.

Students will use New Zealand play money to earn income and purchase goods from a classroom shop and will also have a turn at taking the role of the shopkeeper. They will then communicate and explain the choices they made and the strategies used.

Approximately 9 lessons

Achievement Objectives:

MATHEMATICS AND STATISTICS CURRICULUM Strand: Number and algebra: LEVEL 1:

Number knowledge –Know groupings with five, within ten, and within ten and with ten.

Number strategies –use a range of counting and grouping strategies with whole numbers.

Equations and expressions –Communicate and explain counting and grouping strategies using words and/or pictures.

Enterprising Attributes:

- Being fair and responsible
- Identifying, recruiting, and managing resources
- Collecting, organizing, and analyzing information
- Communicating and receiving ideas and information

Teachers to observe and collect evidence of these enterprising attributes in action.

Mathematics and Statistics Learning Outcomes:

Students will be able to:

- Make up different values of money in a range of ways using various combinations of coins and notes.
- 2. Read prices and calculate if they have enough money to buy products.
- 3. Use appropriate strategies to give correct change.
- 4. Record their financial story using pictures, diagrams, numbers stories, etc.

Resource Requirements:

- A book/story about going shopping.
- 'Goods' to be in the classroom shop, eg: Vouchers for 15 minutes extra play, computer time tickets, pencils, stickers, ½ cup lemonade or juice, recycled McDonald's toys, note pads, etc.
- Coin and note currency.
- Simple cashbook template (see completed Cash Book Exemplar)

Teaching and Learning Sequence

NB: Teachers are encouraged to gauge the prior knowledge of their students before implementing each unit so that they can provide personalised and meaningful learning opportunities. The teaching and learning sequence provided in each unit is to be viewed as a guide only. Teachers will need to adapt this sequence to meet the needs of their students, school and community.

The future focus issue of citizenship and sustainability can be explored during this unit. Students can learn about how earning an income gives people financial choices. They can also learn that earning an income brings benefits to one self and to others. Earning Income and spending and savings sustains our community; and is supported by money circulating.

The numbered activities listed below are learning steps rather than lessons. Teachers may choose to combine two or three learning steps into one lesson. Alternatively, they may spread one learning step out over several lessons. This will be largely dependent on students' prior knowledge and their subsequent learning needs.

Getting started:

The teacher reads a story about going shopping. The teacher explains to students that they are going to set up a shop in the classroom, where they will buy things to practice their number skills. But first they will have to earn some money by coming up with some very good ideas for their shop. Students will learn to count and read prices, and give change.

LINKS TO BES Best Evidence Synthesis

5. Quality teachers link learning to real life experiences.

Exploring:

- 1. The teacher gets the students to list all the types of shops they have been to or seen. What kinds of things do they sell? The children share their experiences of shopping. Communicating and receiving ideas and information
- 2. The teacher selects a few local shops that would be a good 'walk and talk' tour for the students. Themes are decided for the tour, e.g. the shopping process, from looking to buying, what are the steps? What goods on sale are 'needs', and what goods are wants?
- 3.
- 4. Teacher and students generate ideas to create each step of the shopping process using pictures and simple captions. Students work in cooperative groups to assemble these steps in the correct order. Collecting, organising and analysing information
- 5. Have a shopkeeper visit the class and talk about how they work and how they communicate with customers. The teacher and the visitor role-play appropriate and inappropriate buyer / seller interaction. Communicating and receiving ideas and information, Collecting, organising and analysing information
- Children share their ideas about what they observed as being effective practice by both the shopkeeper and the customer.
 Teacher records these as 'success' criteria in poster form.
 Communicating and receiving ideas and information, Collecting, organising and analysing information
- 7. The teacher poses the problem: What do we need in our shop? Something to buy! The teacher suggested that students work in a team to produce some notebooks and other nick knacks using recycled paper, etc for the shop. Identifying, recruiting and managing resources

3. Quality teachers recognise and build on students' prior knowledge.

5. Quality teachers allow students sufficient opportunity for practice and application.

- 8. The teacher thanks the children for their good work and pays them a set amount of money (\$5, \$10 or \$20 depending on the students' number knowledge and strategy levels) using various combinations of coins and/or notes. This money can be used to spend in the shop. (Learning Outcome 1)
- 9. Students talk about the different strategies they could use to count their money and decide on a best way for them. They count their money. Focus question: Even though children have different combinations of coins and/or notes, do we all have the same amount? (LO 1)
- 10. Record pictorially the different ways \$5 can be made up.

Eg. \$1 \$1 \$1 \$1 -5 coins =\$5

\$2 \$2 \$1 - 3 coins =\$5 What are all the possibilities?

Extend this activity to cover \$10 and/or \$20 if appropriate. (LO 1)

11. The teacher and students brainstorm and then make/source some other products for the shop, eg. Vouchers for 15 minutes extra play, vouchers for 10 minutes with the puzzles, vouchers for computer time, small stickers, ½ cup lemonade or juice, recycled McDonald's toys, pencils, note pads, etc. Identifying, recruiting and managing resources

The teacher prices the items in the shop. Prices should reflect students' number knowledge and strategy levels - if students are able to work with numbers up to 20 the items for sale could range from \$5 to \$20.

If students are still working within 5 then the prices need to be less than \$5, etc. Guide children through the shop once it is set up, discussing all the products available and reading the prices for each set of items. (Learning Outcome 2)

- 12. Teach and practice the skills of giving change. (Learning Outcome 3)
- 13. Explain to the children that they will have an opportunity to buy some items to keep when the shop opens and each will have a turn at being the shop keeper. Revise the success criteria listed earlier about the different roles of customer and shopkeeper. Being fair and responsible
- 14. Design a roster so every child has a turn at each of the roles, or alternatively, run the activity on two days. Allocate roles to the students. Students discuss the choices they have; to spend all, some, or none of their money and predict the consequences of each choice. Being fair and responsible
- 15. Open the shop for business. (Learning Outcomes 1, 2 and 3) Integrity
- 16. Repeat this cycle a number of times so that students make links between earning and spending.

3. Quality teachers establish effective partnerships with families.

6. Quality teachers utilize

combinations of teaching directed groupings, cooperative groups,

structured peer interaction,

and individual work to

facilitate learning.

Sharing and Evaluating:

- 17. Students use the success criteria (previously listed) to evaluate the effectiveness of their communication in their shopping experience.
- 18. Students draw a picture or take a photo of themselves with their purchases. Using the pictures/photos make a class book showing how much each child spent.

- 19. Use a simple cashbook template to draw the financial story of 2 or 3 children as a model.
- 20. Children then record their own transactions as a number story.

 Discuss with them the individual choices made. (Learning Outcome 4)
- 21. Encourage parents to take their children with them on a shopping experience and have the children identify prices, select the cash needed for an item, use appropriate customer manners and purchase the goods. Talk about whether they will get any change back.

*The \$2 Shop may be good for this exercise as they will have whole dollar prices, not \$2.99.

Reflective Questions:

Exploring new knowledge and skills

- How did our number skills help us when we were buying goods from the shop?
- How did our number skills help us when we were the shopkeeper giving change?
- Which counting strategies did you use to solve money problems?
- What choices did you have to make and how did you decide?
- Would you make any different choices if we did this activity again?
 Why?
- How did you feel when people communicated with you in a positive way?
- Will you make any changes to the way you communicate with others in our classroom now?

Exploring what it is to be innovative and enterprising

- What step/s were you doing when you used each of the enterprising attributes? Break each attribute into its separate words and refine your answers.
- How could you improve on using the enterprising attribute/s for next time?
- Can you transfer this learning to your other topics?

Exploring further future focus issues

- Do we all spend money in the same way? Why do you think we are different?
- What happens if we don't plan ahead how we are going to spend our money?
- What happens if money stops 'flowing'?

Possible Assessment Activities (Teacher):

Teacher observes and takes anecdotal notes on how well students use various strategies to make different monetary amounts and how well the children show their understanding of this when they complete their financial story.

Handy Hints:

• Mark a few notes and coins so that you can track them and observe how the students' money flows between the students and the shop, and back to the students when they make more product for their shop. Students can write a story about the journey of this marked money. This flow of money is what happens in our economy, and this money flow helps sustain our communities. If this money flow was to stop, then what happens next?

Exemplar of a Students Cash Book Sandy's Cash Book

Day	Description	Money In	Money Out	Balance
Monday	Help clean	\$1 \$2 \$2		\$1 \$2 \$2
Tuesday	Buy Pencil		\$2	\$1 \$2
Wednesday	Buy pad		\$2	\$1
Thursday	Tidy books	\$2 \$2		\$1 \$2 \$2
Friday	Buy and eat apple		\$2	\$1 \$2