Multiplication Tables: Flash Cards

Overview

Certainty with multiplication and addition facts will go a long way towards overcoming students' maths anxiety.

Sometimes only a few shaky facts will lead to students becoming anxious about all tables, and so a small investment of effort will give a large return in confidence.

This activity introduces the long-term strategy of flash cards, based on visual learning methods, to assist students memorise the multiplication facts they have not mastered in the past.

It can be used with individual students who need extra help in learning the table facts or with the whole class, depending on need.

Skills and Knowledge

- Automatic recall of multiplication tables

Preparation and Materials

Buy packets of small index cards or blank invitation cards or cut card into pieces approximately 10 x 3 cm

The number needed depends on the students' current ability to recall table facts.

Bright coloured textas

Prepare 2 or 3 sets of multiplication facts Quick Questions. (See the *Quick Question* activity in *Getting Started* section.)

*If students do learn their tables it is important that they work towards recalling **random facts** and do not have to recite the tables in order, e.g. to find 7 x 4 = 28, they do not have to go through 7, 14, 21, 28.*

Suggested Procedure

This method is a long- term strategy, which students may start in class then continue at home over a few weeks.

The following procedure is designed around a class of students but can be done with individuals even more effectively, if time permits.

Reflecting on the multiplication gaps

If using the activity with the whole class perhaps begin with two or three sets of Quick Questions on multiplication facts. Mix table facts that students are confident with and others they are not.

What is important is that students reflect on what they do and don't know and that they also realise that each of them has different needs in this area.

Ask:

- *Which questions were easy for you?*
- *Which were difficult?*

This is likely to be met with mixed responses from individuals but will give some feel of their needs.

You could follow by going through the tables one by one asking students which they find easy and which they find difficult. For example:

Ask:

- *Who finds the 2s difficult?*
- *What about the 3s? etc.*

Try to make notes about students' needs while they are talking to you as a group.

Introducing the flash cards

Explain:

- *Often learning tables at school was done through saying or singing the tables over and over again*
- *This method is not always good for people who are visual learners*
- *They learn things better by seeing them*
- *Today we will make some flash-cards of your difficult tables - the ones you haven't learned yet*
- *You can use them for a while and see if they help you remember*

Demonstrate what the cards look like:

Example:	7 x 6 =	Side 1
	7 x 6 = 42	Side 2

Explain:

- *We will make a bundle of these – not too many at a time*
- *To use them – first shuffle your cards*
- *Pick one card from the pack and hold it up at eye level*
- *Try to answer it*
- *Check the answer on side 2 instantly by turning the card over*
- *Still hold it up near your eyes so that you **see** the correct answer*

Demonstrate this to students using a couple of sample cards.

Explain:

- *If you were correct, put the card in your 'do know' pack*
- *If not, return to the 'don't know' pack*
- *Repeat with next card etc.*
- *As you get better at this your 'don't know' pack will get smaller and your 'do know' pack will get bigger*
- *When you know all of them you can start with a new pack*

Making the cards

Distribute a pile of 12 – 15 cards to each student then move around to help them make their own flash cards, concentrating on one multiplication table at a time and their individual gaps.

Explain:

- *The cards you make will be different for each person*
- *I want you to start with the first tables that you find hard*
- *For example, if you can remember all of the 5 times table up to 6 then start with 5 x 7*
- *Remember that this method is about visual learning (seeing) to help your memory*
- *Big numbers and bright colours are apparently helpful for this*
- *So make the numbers big and use your favourite colours*

This will take time but the act of creating the cards will also aid students' memory process.

Check that the cards they make are accurate.

Practice with the cards

Allow about 10 minutes for students to practise using their cards in class. They could do it as a pair activity but remember that it is important to **look** at the answer side of the cards each time.

Ask students to then take the cards home and practise in their spare moments – about 5 – 10 minute every day would be perfect. They might like to also use them with other family members and make a game of it.

You may want to set up a recording system so that students are motivated by their efforts and improvements being acknowledged.

Follow up

In future sessions ask students how they are progressing and make new sets of 10 – 12 cards.

Later encourage them to then shuffle the two packs together and check they still remember all of their tricky tables.

Keep going with new packs until all of the tables are remembered.