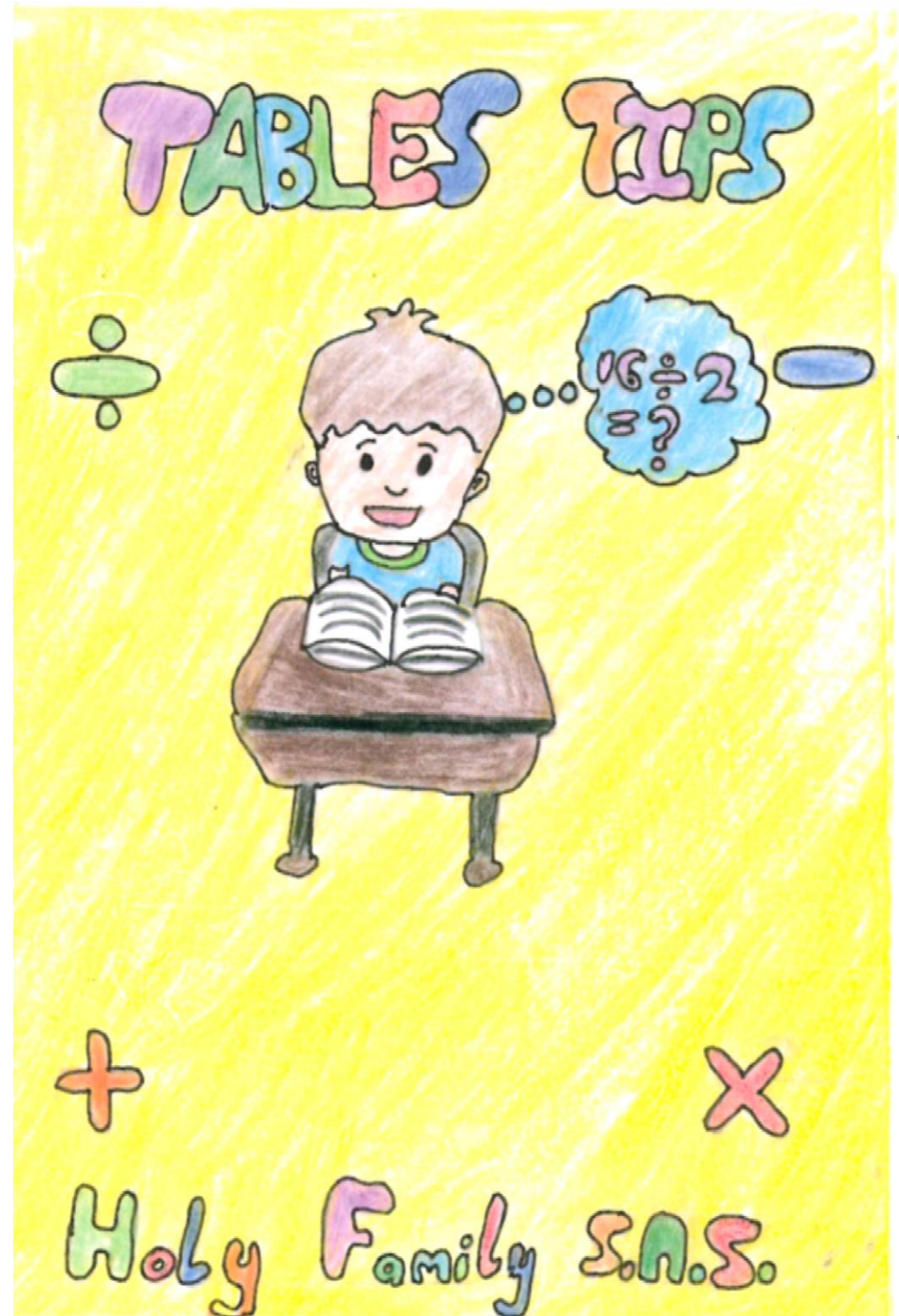


Loop Card Game

The cards for this game are included in this booklet.

- There is a set of loop cards for the addition and subtraction game and another set for a multiplication and division game.
- Cards can be cut into Flash Cards.
- 2 or more players can play.
- Divide all cards between players.
- The object of the game is to get rid of all your cards first.
- The player holding the 'Start' card begins and calls out the sum on their card.
- A player holding a card with the answer says 'I have....(saying the answer)' and then calls out the sum on their card.
- A player can have multiple turns, if they are holding the answer to two or more sequential questions.
- All players must listen carefully and quietly to the sum being called out.
- The winner is the person with no cards remaining.



Contents

- Why learn Tables?
- Where should my child be at with their tables in each year group?
- How to teach the times tables.
- More strategies for learning tables.
- Flash card game.
- Only 36 facts!
- Tables Tricks.
- Some Useful Links.
- Khan Academy
- Instructions for Loop Card Game.

Booklet produced by The School Community Committee.

Cover illustration by Jack Doyle, 5th Class.

Khan Academy

Khan Academy is a safe online learning aid for all pupils from 3rd to 6th class which caters for all abilities. It is particularly good for Maths and Programming. The website offers a free personalised Maths programme for your child.

Your child will need your help to register and set up an account. They will be given a user name and password that will be required each time they log on.

A number of teachers use this site with their classes and would highly recommend it.

- <https://www.khanacademy.org/math>
Khan Academy homepage
- <https://www.khanacademy.org/login?continue=https%3A//www.khanacademy.org/mission/math> Khan Academy sign up

Some Useful Links

- **Tables games:** Fuzz Buzz, Round the World, Bang, Kings and Queens.
<http://www.multiplication.com/teach/classroom-games>
(Game explanations in the link)

Here are some useful links to test your child's times tables

- <https://www.topmarks.co.uk/maths-games/7-11-years/multiplication-and-division>
- You tube – Counting in. (Available for all times tables)
- http://www.transum.org/Tables/Times_Tables.asp
- https://www.youtube.com/watch?time_continue=4&v=YL3PtIxYkZ4
Strategy to learn 6, 7, 8 and 9 times tables using their hands.
- <https://www.oxfordowl.co.uk/help-with-times-tables>
- <http://www.primaryhomeworkhelp.co.uk/maths/>
- <https://komodomath.com/blog/a-parents-guide-to-learning-times-tables>
A parents' guide to learning tables
- <http://www.primaryresources.co.uk/maths/mathsA2.htm>
Loop Cards
- <https://www.khanacademy.org/math> Khan Academy homepage
- <https://www.khanacademy.org/login?continue=https%3A//www.khanacademy.org/mission/math> Khan Academy sign up

Why learn tables?

Tables are the fundamental stepping stone towards your child grasping all areas of the mathematics curriculum. We use tables in our everyday maths and without strong, automatic recall, it is very difficult for your child to fully and accurately understand all areas of mathematics.

There is also a link between improved tables knowledge and the learning outcomes in standardised tests.

Where should my child be at with their tables in each year group?

- By the end of 3rd class, your child should have mastered addition and subtraction tables.
- By the end of 3rd class, your child should be able to count on in multiples.
- By the end of 4th class, your child should be able to recall all multiplication tables.
- By the end of 5th class, your child should be able to recall all division tables.
- By 6th class, your child should have a firm grasp of ALL tables.

Tables Tricks

How to teach the Times Tables

We will use the 3 times tables as an example but this method applies across all times tables.

Memorising the x 3 tables:

1. Write out the table. For example:

- $0 \times 3 = 0$
- $1 \times 3 = 3$
- $2 \times 3 = 6$
- $3 \times 3 = 9$
- $4 \times 3 = 12$
- $5 \times 3 = 15$
- $6 \times 3 = 18$
- $7 \times 3 = 21$
- $8 \times 3 = 24$
- $9 \times 3 = 27$
- $10 \times 3 = 30$
- $11 \times 3 = 33$
- $12 \times 3 = 36$

2. Memorise the list of answers. First study the skip-counting list up until the midpoint (3, 6, 9, 12, 15, 18). Have your child say the list aloud while pointing to the answers one by one with a finger or pen - thereby using several of their senses simultaneously. After they have gone through it a few times, ask them to repeat the list from memory.

Do not give the answers to your child too easily. The mind is like a muscle: it needs exercise to become stronger.

3. Your child needs to memorise this list both upwards and downwards. Continue this way until they can 'rattle off' the first list of 3, 6, 9, 12, 15, 18.

With some tables, like the table of 2 (2,4,6,8....), table of 5 (5,10,15,20....), or table of 10 (10,20,30,40.....), point out the pattern in them. You can mark this on a simple hundred square.

The 1s and 0s

1 times any number is that number!

$$1 \times 6 = 6 \quad 6 \times 1 = 6$$

0 times any number is 0

$$0 \times 11 = 0 \quad 34 \times 0 = 0$$

The 2s

Double the other factor

$$6 \times 2 = 12 \quad \text{Double the 6 and that makes 12}$$

$$8 \times 2 = 16 \quad \text{Double the 8 and that makes 16}$$

The 3s

Double the other factor and then add it in one more time

$$7 \times 3 = 21 \quad \text{Double 7 and that makes 14} \\ \text{then add 7 again and you have 21!}$$

The 4s

Double Double!

$$12 \times 4 = 48$$

Double 12 and that makes 24

Double 24 (24 + 24) to get 48!

The 5s

Skip count by 5. You can use your hands!

$$5 \times 5 = 25$$

Skip count by 5s and after you say the 5th number you've got it!

$$5, 10, 15, 20, 25!$$

The 6s

Sing it out and write down the multiples as you sing.

$$6 \times 1 \text{ is } 6$$

$$6 \times 2 \text{ is } 12$$

$$6 \times 3 \text{ is } 18$$

The 7s

Skip count OR use the other tables' tricks!

$$7 \times 2 = 14$$

You can use the 2's trick! Just double 7 and you get 14!

The 8s

Skip count, or use the other tables' tricks!

$$8 \times 4 = 32$$

The 9s

Use the hands trick!

$$9 \times 9 = 81.$$

Hold your hands up but put down your 9th finger. You will have 8 digits to the left of your finger and one to the right!

The 10s

Write the other factor and add a 0 to it!

$$5 \times 10 = 50$$

$$10 \times 10 = 100$$

$$10 \times 11 = 110$$

The 11s

Just repeat the other factor for the product!

$$7 \times 11 = 77$$

$$6 \times 11 = 66$$

$$11 \times 3 = 33$$

The 12s

Use the other factors' tricks or use repeated addition!

$$12 \times 3 = 36$$

$$12 + 12 + 12 = 36$$

Only 36 facts!

Here are the 36 basic times tables facts that your child should learn by rote and recall without counting on or using their fingers.

$2 \times 2 = 4$	$3 \times 3 = 9$	$4 \times 4 = 16$	$5 \times 5 = 25$	$6 \times 6 = 36$	$7 \times 7 = 49$	$8 \times 8 = 64$	$9 \times 9 = 81$
$3 \times 2 = 6$	$4 \times 3 = 12$	$5 \times 4 = 20$	$6 \times 5 = 30$	$7 \times 6 = 42$	$8 \times 7 = 56$	$9 \times 8 = 72$	
$4 \times 2 = 8$	$5 \times 3 = 15$	$6 \times 4 = 24$	$7 \times 5 = 35$	$8 \times 6 = 48$	$9 \times 7 = 63$		
$5 \times 2 = 10$	$6 \times 3 = 18$	$7 \times 4 = 28$	$8 \times 5 = 40$	$9 \times 6 = 54$			
$6 \times 2 = 12$	$7 \times 3 = 21$	$8 \times 4 = 32$	$9 \times 5 = 45$				
$7 \times 2 = 14$	$8 \times 3 = 24$	$9 \times 4 = 36$					
$8 \times 2 = 16$	$9 \times 3 = 27$						
$9 \times 2 = 18$							

4. Then tackle the last part of the list: 21, 24, 27, 30, 33, 36. Do the same things you did with the first part of the list.

5. Lastly, work with the whole list of answers. Practise the list UP AND DOWN until it goes smoothly and easily.

This part may be enough for one day. But review it later in the day, as the more times it is practised, the more it will be remembered.

6. Next, practise individual problems randomly. You can ask orally ("What is 5 times 3?") or point to the problems on the paper, or use flashcards with individual questions. Say a question aloud and simultaneously point to the problem so that the child can both see and hear the question. The more senses involved in learning the better.

The goal at this stage is to associate each answer 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, with a certain multiplication fact (such as 7×3).

You can also mix earlier tables that your child already knows with these new problems, and drill both with flashcards.

7. The last step is to do this the other way round so that YOU say the answer, for example 21, and the child has to produce the problem (from table of 3). Have the table handy, hide the problems, and point to the answers in random order.

Or the child says the answers, and you produce the questions. Answer incorrectly sometimes to test your child.

8. As an extension, you can say answers from several tables that you've studied and the child gives the corresponding question. Sometimes there are several answers: for example, 36, 30, 24, and 20 are in different times tables.

9. Memorisation of tables probably won't happen overnight. It takes time and practice. You can also practise tables on a journey, asking a selection of questions in the car, on a bus.

More Strategies for Learning Tables

1. **Counting on:** e.g. counting up and back in 2s, 3s, 4s,.....10s as a daily activity.

2. **Doubles :** $2 \times 2 = 4$, $3 \times 3 = 9$, etc.

3. **Nine facts:** (9x tables)

Using fingers:

Invite the children to place both hands face down on the table. Children number the fingers (including thumbs) from left to right, beginning with 1 on the small finger of the left hand. Get the child to bend down, for example, the fourth finger (index finger) on this hand to work out the answer to 4×9 . The fingers to the left of the bent down finger represent the tens in the answer and (including the right hand), the fingers to the right of the bent fingers are the units. This works for all 9x tables up to 9×10 .

Did you know?

- In 9x tables, the first digit of your answer is one less than the number you are multiplying by. The second digit of the answer is equal to 9 minus the first digit.
e.g. $9 \times 4 = 36$: 3 is one less than 4 (the number you are multiplying by)
and $6 = 9 - 3$ (the first digit of your answer).
- Answers add up to 9. e.g. $2 + 7 = 9$
 $36 \quad 3 + 6 = 9$

4. **Multiplying** by 10, 100, 1000.

For example,

$5 \times 10 = 50$ (add a zero to 5 when multiplying by 10)

$5 \times 100 = 500$ (add two zeros when multiplying by 100)

$5 \times 1000 = 5000$ (add three zeros when multiplying by 1000)

5. **Remind** your child that $3 \times 4 = 4 \times 3$ etc.

Flash Card Game

You can easily create a set of Flash Cards to help your child familiarise themselves with and learn their tables off by heart.

Some games to be played with flash cards include:

1. Showing a flashcard of question (e.g. $9 \times 2 =$) to your child and they must call out the answer.
2. Laying the flashcards with answers on the table and when you call out an answer, your child must find the correct sum from another set.
3. Creating competitions – laying flashcards upside down on table and when a card is turned upright, your child must beat you to calling out the answer.

These games and many more will encourage your child to learn their maths tables. This will help them when calculating problems during classwork and homework and with their accuracy in maths calculations.