



# Toys of the Past Pack

**Toys of the Past Pack**  
**Product Code: BTPAC**

## **Contents**

(Contents may vary)

Pop gun, tumbling man, trapeze toy, Jacob's ladder, pull cord spinning top and flick books.

## **Introduction**

This delightful set of toys has been put together especially for use in both infant and junior schools to compliment the relevant parts of 'Key Stage 1' of the 'National Curriculum' in History and Science. Not only do they reflect the sort of playthings available to children in the past, they all clearly demonstrate one or more of the basic 'Forces' in action.

## **The Toys:**

### **THE POP GUN**

This has been in existence for many years, but was particularly popular during Victorian Times. The type here is a faithful replica of those available from the toyshops of the time. Victorian boys who lived in the countryside made their own 'Hedgerow' version by cutting a short length of elder branch, clearing out the soft pith, thereby creating a hollow stick. A thinner stick that fitted tightly would be pushed inside, creating a 'Pop Gun'. They would then hang a small board around their neck to push against, and then load the tube tightly with chewed paper, and then force the plunger in against their board... Result? A loud POP! And a small damp missile shooting forwards for about two metres. Not dangerous but good fun.

This Pop Gun has been made with safety in mind, the cork is retained by a cord, that also enables quick reloading, SAFE BUT LOUD.

For science, the Pop Gun clearly demonstrates both 'Push' and 'Pull' and should you wish to explain to older pupils 'Compression' together with 'Action and Reaction'

### **TUMBLING MAN**

This is a very well-known toy that almost certainly originated in Victorian times. Many different patterns exist but the ladder frame and keyhole slots in the tumbling figure remains the same. Place the figure on the top rung of the ladder let go, to see him tumble merrily from step to step to the delight of a watching audience.

For Science, the Tumbling Man clearly demonstrates the force of 'Gravity' in action in a noisy but effective way.

## **TRAPEZE TOY**

The popular trapeze toy was a simple but clever design that would keep children entertained for hours and are still used today. By squeezing the bottom of the trapeze poles, you can make the character spin round and round.

## **JACOB'S LADDER**

This mysterious and fascinating toy has ancient origins (probably China) but became popular in Victorian times and remains so today. The toy consists of a series of flat wooden blocks held together via specially arranged coloured ribbons. To operate, hold one of the end blocks firmly by its edges, and then watch in amazement the block appears to tumble down over and over without falling to the ground. Repeat by reversing the toy and starting again.

For science, the Jacob's Ladder clearly demonstrates gravity at work in the most amazing manner; the toy continues to fascinate people of all ages.

## **CORD PULL SPINNING TOP**

Spinning tops are one of the oldest toys in the world, the Ancient Egyptians, Greeks and the Romans new them well. Tops were played with by Tudor children, and by the Victorians; they remain just as popular today. The cord pull spinning top became a very popular indoor toy during the late eighteenth century and the Victorians invented lots of games for it. One was to place two or more spinning tops inside a shallow tray to knock each other over or too demolish small skittles. (You could try this)

For science, the spinning top can be used for many experiments. To operate this wonderful toy; insert the peg of the spinner in to the small hole in the launching handle, then one end of the PULL cord only just through the tiny hole in the peg. Now the tricky bit, turn the spinning top with the fingers so that the loose cord winds in around the peg.

Now hold the end of the handle firmly with the point of the top about a centimetre above a flat, level surface (floor or table top). Now pull firmly on the cord ALL the way out in one easy movement, this will cause the top to spin at a very high speed for quite a long time. Once you have mastered the launch it is time to experiment.

- 1.** Draw and cut out a number of card circles, each having a central hole that fits over the peg on the top. Now use coloured pens or crayons to decorate both sides of the circles with different patterns. Spin each card circle in turn and observe the amazing display.
- 2.** Divide one card circle into 7 equal segments (ask teacher for help) then colour each segment in the exact 7 colours of the rainbow, violet, indigo, blue, green, yellow, orange and red. Now try to guess what colour this circle will be when it is spun at high speed and don't give it away if you already know.

3. Spin the top on a small tray or a large plate, then attempt to throw it up and catch it whilst it is still spinning, Do what Victorian children did and throw it from tray to tray, or flip the tray over so that you catch the top on the bottom of the tray and so on.

4. FORCES. Observe the top as it spins and remember that it was a PULL that first made it go. You will soon observe three more forces at work, first Centripetal, then Friction and finally Gravity. Centripetal is the force that keeps the top spinning, Friction between the table and the spinning point will slow the top down and finally Gravity will make the top fall over.

Have a competition between two similar tops and use a stopwatch to see which one spins the longest, but remember the amount of pull force may make a difference. Try spinning the top on different surfaces then observe and make notes.

5. Place one or two black marks on the edge of a card circle, spin the top under a fluorescent light, if done correctly you will see the Stroboscopic effects caused by the almost invisible flickering of the lamp, the top will appear to be spinning backwards or even slowing down then speeding up. Try it and see.

## **FLICK BOOKS**

These novelty books were great favourites of Victorian children and adults alike. Remember that they had never before seen moving pictures (Like TV and Cinema) the flick books and new novelty toys like the ZOEOTROPE, PHENAKISTASCOPE and the PEDEMASCOPE were the results of scientific experiments in to the discovery of cinema and films. I have read that when families saw their very first moving picture show of a train hurtling towards them on the screen they would all scream and hide under the seats. We take all of that for granted nowadays.

For science, The Flick Book clearly demonstrates, the natural way in which our eyes momentarily retains a picture so that when a thick book of slightly differing picture of the same subject are flicked through, it appears as though the pictures are moving like those on TV or cinemas. To operate, hold the flick book by the it's thick spine, and so that you can see the first picture, now allow the pages to flick rapidly through the pages, you will be amazed and delighted to see real MOVING PICTURES.

Experiment, by making up your own flick books, but first you must learn a little about drawing cartoon stick figures all slightly different for each of about 50 pages. A wonderful way to spend a science and or art lesson, and to make your very own animated cartoons.

## Summary

All of the items in the set reflect just small selection of more unusual toys available during the long reign of QUEEN VICTORIA. Of course there were many more and you will need to study library books or CD Rom Encyclopaedia's on your computer to find out what. The toys also demonstrate that you can have fun and discover just how children from the past enjoyed themselves and learned some basic science facts. What is amazing is that none of the toys needs a battery to make them work; instead they all require a FORCE supplied by the user.

In the case of the Flick Books, read up on OPTICAL TOYS and you will be amazed at what was available all those years ago. Some are quite easy to make in the classroom, or even at home on rainy day, so HAVE A GO.

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