ANAZTING ASSEMBLIS FOR PRIMARY SCHOOLS

25 SIMPLE-TO-PREPARE EDUCATIONAL ASSEMBLIES

MIKE KENT



Published by Crown House Publishing Crown Buildings, Bancyfelin, Carmarthen, Wales, SA33 5ND, UK www.crownhouse.co.uk and Crown House Publishing Company LLC PO Box 2223, Williston, VT 05495 www.crownhousepublishing.com

© Mike Kent, 2016

Illustrations © Les Evans, 2016

The right of Mike Kent to be identified as the author of this work has been asserted by him in accordance with the Copyright, Designs and Patents Act 1988.

Les Evans has asserted his right under the Copyright, Designs and Patents Act 1988, to be identified as the illustrator of this work.

First published 2016.

All rights reserved. Except as permitted under current legislation no part of this work may be photocopied (except page 51), stored in a retrieval system, published, performed in public, adapted, broadcast, transmitted, recorded or reproduced in any form or by any means, without the prior permission of the copyright owners. Enquiries should be addressed to Crown House Publishing.

Crown House Publishing has no responsibility for the persistence or accuracy of URLs for external or third-party websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

British Library of Cataloguing-in-Publication Data A catalogue entry for this book is available from the British Library.

Print ISBN 978-178583069-3 Mobi ISBN 978-178583118-8 ePub ISBN 978-178583110-2 ePDF ISBN 978-178583111-9

LCCN 2016935139

Printed and bound in the UK by Bell & Bain Ltd, Thornliebank, Glasgow

CONTENTS

Introduction 1		
Assembly 1	The Extraordinary Eggshell	. 2
Assembly 2	Colourful Computation	. 4
Assembly 3	The Clever Coin	. 6
Assembly 4	The Baffling Banana	. 8
Assembly 5	Clever Cuts	10
Assembly 6	The Moving Coin That Doesn't Move	12
Assembly 7	Addictive Addition	14
Assembly 8	The Fearless Flyer	16
Assembly 9	Give Me a Ring	18
Assembly 10	Surprising Sevens	20
Assembly 11	Alternative Art	22
Assembly 12	Squashed Tomatoes	24
Assembly 13	Lifting the Lid	26
Assembly 14	So Who Am I?	28
Assembly 15	Sound Sense	30
Assembly 16	A Pressing Problem	32
Assembly 17	Puzzling Paper	34
Assembly 18	Whacky Words	36
Assembly 19	Tantalising Tables	38
Assembly 20	Musical Mayhem	40
Assembly 21	Decorative Diffusion	42
Assembly 22	Animated Antics	44
Assembly 23	Serious Strength	46
Assembly 24	Tension Tricks	48
Assembly 25	Dedicated Discussion	50
A Final Thought		53

INTRODUCTION

A school assembly for primary children should be exciting and interesting; a time when children can learn, share and contribute to a valuable learning experience.

And that's where this book comes in. *Amazing Assemblies for Primary Schools* consists of twenty-five very special teacher-led assemblies for head teachers, deputies, senior leaders or anyone who is required to lead an assembly with young children at short notice. All the assemblies have been tried and tested, they are all ideal for presenting to large groups of children in the school hall, and they cover a range of subjects. There are science experiments, art demonstrations with unusual materials, word games, puzzles, quizzes, mathematical trickery, even an extraordinary eggshell and a baffling banana!

All the assemblies are interactive, using between two and ten children as 'helpers'. Each one also has a theme which can be developed afterwards in many different ways if children or teachers wish to take up the suggested ideas. The assemblies have been designed with the busy teacher in mind, and although extremely entertaining (and often quite amazing!) they are really simple to prepare. One, for example, doesn't need anything more complex than a pair of scissors and a few sheets of paper, and yet it is guaranteed to fascinate the children watching it.

Once they have participated in these assemblies, it is very likely that the children will want to try the ideas in class or at home, which is a further bonus. Some of the puzzles, for example, can be made easily and will keep the children entertained and amused for hours. Some of the assemblies are more complex than others, so it is always worth rehearsing them before introducing them to the children, especially those involving experiments.

This is an ideal resource book for teachers and leaders in a primary school. All the assemblies are carefully described and the instructions for each are simple to follow. The text is fully illustrated with diagrams and pictures. I hope you and your children get a great deal of enjoyment from them.

Assembly 15

SOUND SENSE

WHAT IS THIS ASSEMBLY ABOUT?

This assembly is all about how sound waves travel. You show how we can pinpoint the direction of sounds and the way sound changes when funnelled through different shapes. And then you communicate with a child quite a distance from the hall – using a piece of string!

WHAT YOU'LL NEED:

- A ball of string
- A pair of scissors
- Some sheets of A1 sugar paper
- Two polystyrene or thin plastic cups
- A cardboard tube the longer the better
- Some masking tape
- A CD player and a CD of Beethoven's Ninth Symphony
- A blindfold

PREPARING THE ASSEMBLY

Very little preparation is needed for this session. Simply punch a small hole through the bottoms of the cups and you're ready to take the assembly.



INTRODUCING THE ASSEMBLY

Part 1: Tell the children you want them to listen carefully to a piece of music. Play them a short piece from the choral section of the Ninth Symphony. Then ask them to imagine what it must have been like for Beethoven never to have heard his wonderful symphony due to his deafness. Explain how he had to be turned around to face the audience because he couldn't hear them cheering.

We take our hearing for granted and yet the way sound reaches our brain is remarkable. Ask two children to help you – we'll call them Tom and Sadie. Tom should stand at the back of the hall, in the centre, facing towards the front. Blindfold Sadie and stand her at the front, facing all the children. Ask Tom to say 'Hello' in a fairly loud voice. Then ask Sadie to point to where the voice is coming from. Ask Tom to move and then call out again. Do this several times. Each time Sadie will be able to pinpoint exactly where the 'Hello' is coming from. Explain that having two ears enables us to do this; if Tom is standing to the right, his voice (sound waves) will reach Sadie's right ear *fractionally* before her left ear, therefore she knows he's on the right.

Part 2: Ask Tom to return to the front of the hall. Give him the long cardboard tube and ask him to hold it up to Sadie's ear and speak softly into it. His voice will be surprisingly loud to Sadie because the sound waves are concentrated in the tube. Roll a large sheet of paper into a fat cone, making the sort of ear trumpet that Beethoven used to carry around (in a pram!). Ask Tom to put the narrow end in his ear and show how it improves his hearing because it 'collects' a lot of sound. Reveal how it improves even further if he has a cone in each ear.

Part 3: Explain that sound can travel along and through materials as well, and that you're going to demonstrate this with a piece of string and two plastic cups. Push the end of the string through the hole in the bottom of one cup and make a knot so that it can't come out. Ask Tom to walk with the cup to the other end of the hall (or preferably out of the hall and along the corridor, provided the string can be kept in a tight straight line). Now cut the string, push the other end through the second cup and tie a knot. Keep the string taut. Sadie should now hold the cup and speak into it, while Tom listens in his cup, making sure he puts the mouth of the cup firmly over his ear. Sadie's words should be quite clear to him.

Call Tom back and ask him what Sadie said. Then reverse the roles, sending Sadie down the corridor. Explain that the vibrations from our voice travel along the string. The string 'tele-phone' works surprisingly well, even over quite a long distance, and the children should find this very interesting to watch.

AND FINALLY ...

It is a good idea to follow up this assembly with another on the story of the Frenchman, René Laennec, who invented the stethoscope after watching children transmit sound through a wooden beam by scratching it with a pin – rather like the cardboard tube effect in the session described above. Interesting experiments can be done in another session on the beating of the heart and how the sound of it can be heard by doctors listening through a stethoscope. It hasn't really changed much since Laennec invented it!

Assembly 22

ANIMATED ANTICS

WHAT IS THIS ASSEMBLY ABOUT?

If we didn't have the phenomenon known as 'persistence of vision', cinema and television wouldn't exist. You explain it and demonstrate three different ways of illustrating it.

WHAT YOU'LL NEED:

- A short length of broom handle
- A piece of very stout corrugated card, about 35 cm square
- A hammer
- 📕 A nail
- A pair of scissors
- A strip of white card approximately 8 x 40 cm – paint one side of the card black or glue a piece of black paper onto it
- A piece of stiff white card, about 10 cm square
- Red, yellow and black large felt-tip pens
- A new pencil
- Two large elastic bands
- Some sticky tape

PREPARING THE ASSEMBLY

Firstly, you need to make a simple turntable. Draw the largest possible circle on the corrugated card and cut it out. Hammer a nail through its centre and into the end of the broom handle. Don't hammer it right in - the disc needs to be able to spin. Take the strip of white card and cut slits into it, as shown in Diagram 1. Then draw the 'stick man' sequence onto it, as shown, each image being slightly different from the last. Take the small piece of stiff white card and draw a large red blob on one side of it. On the other side, draw a large yellow blob. Finally, punch two holes at the sides of the card, thread the elastic bands through and tie them so they won't come out.



INTRODUCING THE ASSEMBLY

Part 1: Ask the children to stare at a light bulb in the hall for a short time and then shut their eyes. They will still 'see' the image. The image 'persists' for a short time. Take the pencil and hold it up in the air, gripping it about a third of the way along using your right hand finger and thumb. Hold it very loosely. Now waggle it up and down and the pencil will appear to be bending, as if it was made of rubber (you'll need to practise a little to get the right effect). Our eyes see it in the up position, but before it can register on the brain, it's moved to the down position, and then up again and so on. Our eyes can't keep up with the movement. Explain that when we watch a film at the cinema, it is really a series of still images, each slightly different from the last. Because the images change quickly, our eyes can't keep pace, so the images seem to combine and we think we see a moving picture.

Part 2: A similar effect can be demonstrated using the card with the elastic bands. Ask a child to hold the ends of the elastic bands and pull a little to stretch them. Show that there is a different colour on each side of the card. Now 'wind up' the card by turning it over and over until it won't turn any more. Let it go, and because our eyes can't keep up with what we're seeing, the colours seem to combine, making the blob appear orange.

Part 3: Show the turntable and how it spins on the nail. Curl the stick man strip into a circle, fastening the ends with a piece of sticky tape, and sit the strip on the turntable. Ask a small group of children to come and stand with you. Tell them to look through the slits at the stick man pictures as you spin the turntable. As they watch, the man's arms will appear to go up and down. Explain that this was a very popular Victorian toy called the zoetrope, and there are still versions of it on sale today. One is shown on page 44.

Diagram 1



Diagram 2

AND FINALLY ...

Obviously, only a small group of children can observe the effect in your homemade zoetrope during this session, but it can always be sent around to the classes afterwards. Many children will probably be encouraged to make their own as it isn't very difficult. There are also many other persistence of vision experiments to be found in books and on the internet.

Assembly 24

TENSION TRICKS

WHAT IS THIS ASSEMBLY ABOUT?

Although it can't be seen or felt, you explain that, just like us, liquids have a skin – and then you prove it by showing the children three experiments with water.

PREPARING THE ASSEMBLY

Place a chair at the front, beside your table. Stand the tumbler on the table and fill it two-thirds full of coloured water. So that it can be seen easily you may want to stand it on a small box. As these experiments could be difficult to see clearly from a distance, you may want to seat the children nearer to you for this assembly.

WHAT YOU'LL NEED:

- A large transparent dish or bowl of water
- A tablespoon
- A tomato
- Some washing-up liquid
- A tumbler
- A jug of coloured water (dilute a little paint into it)
- Three matchsticks
- An elastic band
- A milk bottle or similar
- A small square of gauze or mesh



INTRODUCING THE ASSEMBLY

Part 1: Ask a younger child (we'll call her Sally) to come and help you. Stand her on the chair. Hold up the tomato and ask the children if there are any differences between Sally and the tomato. The children will find this amusing and will point out lots of differences!

Then ask if they can think of something that is the *same* about Sally and the tomato. It won't be long before somebody points out that both Sally and the tomato have a skin. Now explain that, surprisingly, liquids have a skin too, even though you can't see it as easily as the skin on a vegetable, fruit or human being.

Part 2: Show the tumbler with the coloured water. Now gradually add more coloured water to it until the tumbler is full. Ask the children if it's possible to fill it any further and they'll say no. Continue adding water very carefully with the spoon until it just starts to drip over the side. Ask Sally to get down to the level of the rim of the glass, and she'll be able to see quite clearly the convex shape of the water skin.

Part 3: Place the bowl of water on the box so that it can be seen clearly. Drop the three matchsticks into the water, in a triangle shape as near to the centre of the bowl as you can, so that they float. Explain that the water skin, or surface tension, is supporting them. Now let a tiny drop of washing-up liquid fall into the triangle. The three matchsticks will suddenly spring apart. Explain that soapy liquid destroys the surface tension, which is why washing-up liquid helps to get dishes clean quickly. It breaks down the surface tension and allows the water to get closer to the dishes.

Part 4: Fill the bottle full of coloured water, right up to the brim, and then stretch the gauze over the top, keeping it secure with an elastic band. Ask the children what they think will happen if you turn the bottle upside down. They will undoubtedly say that the water will trickle out through the holes. Turn the bottle over quickly and show that the water *doesn't* pour out, because the skin of the water around all of the little mesh holes is keeping the water inside.

AND FINALLY ...

Apart from these experiments, which children can easily try for themselves at home, there are many other variations on the surface tension theme. Instead of the matchsticks, a loop of thread can be dropped into the water and the washing-up liquid will cause it to form a circle. A small cork dropped into a tumbler of water will quickly float to the side, but fill a tumbler until the skin forms a convex surface and the cork will settle in the middle as it finds the highest water point.



A FINAL THOUGHT

An assembly is such a valuable time for a school leader and the children. I hope this book has not only given you a great deal of enjoyment and a range of promising assembly themes, but has also sparked lots of ideas of your own.

Some of the most successful assemblies I've done have been almost spur of the moment. Sorting out her loft one Sunday, a member of staff found a 1930s phonograph. It was complete but in pieces. We had a wonderful time in assembly on Monday morning gradually putting it back together while the children tried to guess what it was as it took shape.

On another occasion, after seating five members of staff on a bench, I challenged a tiny infant child to lift up the bench. The children all said it was impossible – and then, to their great amusement, I introduced the car jack I'd been using before school started, put it under one end of the bench and the infant pumped it up with ease! This led to a discussion on other amazing machines and how they work – the crane, for example, which was being used on a housing development opposite the school.

Young children have a real thirst for knowledge and an endless fascination with the world around them which we, as teachers, need to nurture. And it can start in a lively and fascinating school assembly ...

A SCHOOL ASSEMBLY FOR PRIMARY CHILDREN SHOULD BE EXCITING AND INTERESTING; A TIME WHEN CHILDREN CAN LEARN AND A TIME WHEN THEY CAN SHARE AND CONTRIBUTE TO A VALUABLE LEARNING EXPERIENCE.

Amazing Assemblies for Primary Schools consists of twenty-five very special teacher-led assemblies for head teachers, deputies, senior leaders or anyone who is required to lead an assembly with young children at short notice. All the assemblies have been tried and tested, all are ideal for presenting to large groups of children in the school hall and between them they cover a large range of subjects. There are science experiments, art demonstrations with unusual materials, word games, puzzles, quizzes, mathematical trickery, even an extraordinary eggshell and a baffling banana!

Although the assemblies are primarily aimed at Key Stage 2 (age 7–11 years), many are also eminently suited to Key Stage 1 (age 5–7 years).

Here are twenty-five ideas, any one of which will guarantee a great experience.

SIR TIM BRIGHOUSE, FORMER LONDON SCHOOLS COMMISSIONER AND CHIEF EDUCATION OFFICER FOR BIRMINGHAM AND OXFORDSHIRE

- What you'll need The assemblies use materials that are readily available in school, or that you are likely to have at home.
- What is this assembly about? Each assembly has a different theme or focus for learning.
- Preparing the assembly Detailed instructions make preparation easy, although preparation time needed is minimal.
- Introducing the assembly There are step-bystep instructions making the assemblies easy to deliver.
- And finally ... Each assembly offers follow up ideas for further learning and exploration.

These assemblies are about intriguing, fascinating
and involving children.TERENCE O'BRIEN, RETIRED TEACHER

As a busy head teacher, this book is just what I need to capture the imaginations of children of all ages.

ANITA ASUMADU, HEAD TEACHER, OLIVER GOLDSMITH PRIMARY SCHOOL

A must-buy for any imaginative, forward looking primary school. JOHN LORD, RETIRED HEAD TEACHER



Packed full of exciting activities to excite and enthral: guaranteed to start the day on a high note. MICHAEL EVANS, EDUCATIONAL JOURNALIST The activities are simple and easy to prepare and I will be using them immediately, just as long as I contact the fire brigade first!

RICHARD DAX, HEAD TEACHER, COMBER GROVE PRIMARY SCHOOL

Mike Kent has spent his entire career in primary education and was a head teacher for thirty years. He has written for many educational papers and magazines and was a leading columnist on the *Times Educational Supplement* for fifteen years, being shortlisted twice as newspaper columnist of the year. Mike has co-authored twenty-seven musical plays for primary schools and written three books on education, including a popular autobiography of his headship years. *Amazing Assemblies for Primary Schools* is Mike's first resource book for teachers.

