

# Storyboard Science Teacher's Notes

Traditionally throughout schools in the UK, science is taught based on the published material provided by the Qualifications and Curriculum Authority (QCA). These units are structured in order to teach a particular area of science at the same time, for example unit 7A – Cells, 7B – Reproduction, 7C – Environment & Feeding Relationship. These topics are also aimed at pupils who are working at an ability appropriate to their age; hence attaining National Curriculum level 1-5 at Key Stage 2 and 3-8 at Key Stage 3 (QCA, 2007). Although these units can and should be adapted to suit all abilities it is sometimes not in the best interests of the pupils to teach the units in this structured manner.

It is well documented that children with social and communicational difficulties, especially autistic pupils, struggle in everyday classroom situations, (Whitaker, 2003). One approach which has been introduced to help children make sense of these situations is a social story. This story based method was developed by Carol Gray, an American teacher of Autistic Spectrum Conditions in the early 1990's. The stories aid SEN pupils to acquire understanding and information that they may find difficult to infer (Frederickson, 2009). Research has initially been based around the learning and development of social skills with many studies suggesting this to be a beneficial approach.

Storyboard Science is a series of science schemes which include teacher guides and resources. The activities incorporate social skills along side developing scientific knowledge based around a story. This approach towards science will enable pupils to gain an understanding of how science can influence our lives and the world around us. All activities will be mapped to QCA topics in order to identify areas of the National Curriculum. Additionally learning and progression will be monitored and assessed for both formative and summative assessment ranging from P scale 1 – national curriculum level 5.

The stories will provide links between science concepts and how they are used in every day life; ideas that most SEN pupils struggle with; thus simultaneously addressing the psychological theory of weak central coherence, (Howley, 2005). The use of the story will also provided continuity within the lessons, by using the same characters and providing structure throughout the lessons that the pupils can connect with. An additional focus underpinning the series will be fundamental scientific skills; each teacher guide will identify the traditional science skill focused on during a particular session. Collectively these activities will provide the opportunity for pupils to develop confidence through practical enquiry, contributions in class discussions and undertaking investigations in order to aid both scientific understanding and social communication.

Storyboard science aims to impact on learning through greater enjoyment and understanding of science whilst motivating and challenging pupils.

## Structure of Each Section

First page – Story page. This will set the scene. It will allow the pupils to engage in real life situations and aid in the progression of basic social and communication skills through discussion.

Second page – The Science Content. Incorporating numerous tasks which aim to develop scientific knowledge whilst simultaneously providing opportunities for pupils to engage in scientific investigations and skills.

Third page – The teacher guide. This will provide support for the person leading the session, providing suggestions for learning activities and continued assessment opportunities for pupils at all levels.

# Storyboard Science 1

Gail Blair

Illustrated by Keith Blair

## Contents

Title	Page
Lesson 1 –The Run Home	1
Exercise and Breathing	2
	3
Lesson 2 – Hearing the Siren	4
The Human Ear	5
	6
Lesson 3 – Looking for Evidence	7
The Eye	8
	9
Lesson 4 – Fingerprinting	10
Taking Fingerprints	11
	12
Lesson 5 – In Need of Petrol	13
Types of Fuel	14
	15
Lesson 6 – Drive to the Lab	16
Pollution	17
	18
Lesson 7 – Looking at the Samples	19
The Microscope	20
	21
Lesson 8 – Catching the Thief	22
Finding Patterns	23
	24
Additional information and answers	25

No part of this publication may be reproduced in any form other than by the original purchaser.  
Only direct copies from this master are permitted. No sale of these copies is permitted.  
No copyright rights are extended or implied to secondary users.

ISBN 978 1 84198331 8

© Learning Materials Ltd 2011

Published by Learning Materials Ltd, Dixon Street, Wolverhampton, WV2 2BX

[www.learningmaterials.co.uk](http://www.learningmaterials.co.uk)

Tel: 01902 454026 Fax: 01902 457596

e-mail:[learning.materials@btinternet.com](mailto:learning.materials@btinternet.com)

# Storyboard Science 2

Gail Blair

Illustrated by Keith Blair

## Contents

Title	Page
Lesson 1 – Making the Lists	1
Magnets	2
	3
Lesson 2 – Shopping for the Food	4
Food Groups	5
	6
Lesson 3 – Making the Jelly	7
Dissolving	8
	9
Lesson 4 – Getting Ready for the Party	10
Electricity	11
	12
Lesson 5 – The Disco Lights	13
Simple Electrical Circuits	14
	15
Lesson 6 – Eating the Food	16
The Digestive System	17
	18
Lesson 7 – Is it Too Loud?	19
How to Protect our Ears	20
	21
Lesson 8 – The Clean Up	22
Microbes	23
	24
Additional information and answers	25

No part of this publication may be reproduced in any form other than by the original purchaser. Only direct photocopies from this master are permitted. No sale of these photocopies is permitted. No copyright rights are extended or implied to secondary users.

ISBN 978 1 84198332 5

© Learning Materials Ltd 2011

Published by Learning Materials Ltd, Dixon Street, Wolverhampton, WV2 2BX

[www.learningmaterials.co.uk](http://www.learningmaterials.co.uk)

Tel: 01902 454026 Fax: 01902 457596

[e-mail:learning.materials@btinternet.com](mailto:e-mail:learning.materials@btinternet.com)

# Storyboard Science 3

Gail Blair

Illustrated by Keith Blair

## Contents

Title	Page
Lesson 1 – Aeroplanes	1
Air Resistance	2
	3
Lesson 2 – Egypt	4
Animal Adaptations	5
	6
Lesson 3 – The Archaeologists	7
Fossils	8
	9
Lesson 4 – Australia	10
Day and Night	11
	12
Lesson 5 – The Rainforest	13
Plant Classification	14
	15
Lesson 6 – Cruise to Italy	16
Floating and Sinking	17
	18
Lesson 7 – Mount Etna	19
Volcanoes	20
	21
Lesson 8 – Beyond the Earth	22
The Solar System	23
	24
Additional information and answers	25

No part of this publication may be reproduced in any form other than by the original purchaser. Only direct photocopies from this master are permitted. No sale of these photocopies is permitted. No copyright rights are extended or implied to secondary users.

ISBN 978 1 84198333 2

© Learning Materials Ltd 2011

Published by Learning Materials Ltd, Dixon Street, Wolverhampton, WV2 2BX

[www.learningmaterials.co.uk](http://www.learningmaterials.co.uk)

Tel: 01902 454026 Fax: 01902 457596

e-mail: [learning.materials@btinternet.com](mailto:learning.materials@btinternet.com)

# Storyboard Science 4

Gail Blair

Illustrated by Keith Blair

## Contents

Title	Page
Lesson 1 – Breakfast	1
Food for energy	2
	3
Lesson 2 – The Warm Up	4
Healthy Lifestyle	5
	6
Lesson 3 – The First Race	7
Speed	8
	9
Lesson 4 – The Egg and Spoon Race	10
Reversible and Irreversible Reactions	11
	12
Lesson 5 – The Ice Lolly	13
Melting and Freezing	14
	15
Lesson 6 – The Javelin	16
Basic forces	17
	18
Lesson 7 – The Milk Break	19
The Skeleton	20
	21
Lesson 8 – The Medal Ceremony	22
Metals and Non-metals	23
	24
Additional information and answers	25

No part of this publication may be reproduced in any form other than by the original purchaser. Only direct photocopies from this master are permitted. No sale of these photocopies is permitted. No copyright rights are extended or implied to secondary users.

ISBN 978 1 84198334 9

© Learning Materials Ltd 2011

Published by Learning Materials Ltd, Dixon Street, Wolverhampton, WV2 2BX

[www.learningmaterials.co.uk](http://www.learningmaterials.co.uk)

Tel: 01902 454026 Fax: 01902 457596

[e-mail:learning.materials@btinternet.com](mailto:learning.materials@btinternet.com)

# Storyboard Science 5

Gail Blair

Illustrated by Keith Blair

## Contents

Title	Page
Lesson 1 – Getting Ready	1
Teeth	2
	3
Lesson 2 – Arriving at the Park	4
Keeping Warm	5
	6
Lesson 3 – The First Clue	7
Habitats	8
	9
Lesson 4 – Starting to Rain	10
The Water Cycle	11
	12
Lesson 5 – The Second Clue	13
Friction	14
	15
Lesson 6 – The Rainbow	16
What Colour is Sunlight?	17
	18
Lesson 7 – The Final Clue	19
Food Chains	20
	21
Lesson 8 – Finding the Treasure	22
Gravity	23
	24
Additional information and answers	25

No part of this publication may be reproduced in any form other than by the original purchaser. Only direct photocopies from this master are permitted. No sale of these photocopies is permitted. No copyright rights are extended or implied to secondary users.

ISBN 978 1 84198335 6

© Learning Materials Ltd 2011

Published by Learning Materials Ltd, Dixon Street, Wolverhampton, WV2 2BX

[www.learningmaterials.co.uk](http://www.learningmaterials.co.uk)

Tel: 01902 454026 Fax: 01902 457596

e-mail: [learning.materials@btinternet.com](mailto:learning.materials@btinternet.com)

# Storyboard Science 6

Gail Blair

Illustrated by Keith Blair

## Contents

Title	Page
Lesson 1 – Bacon and Eggs	1
Diffusion	2
	3
Lesson 2 – Cleaning the Oven	4
Acids and Alkalis	5
	6
Lesson 3 – Lighting the Fire	7
The Fire Triangle	8
	9
Lesson 4 – Preparing the Casserole	10
The Compost Heap	11
	12
Lesson 5 – Watering the Plants	13
What Do Plants Need To Grow?	14
	15
Lesson 6 – Making a Hot Drink	16
Solids, Liquids and Gases	17
	18
Lesson 7 – The Spider	19
Vertebrates and Invertebrates	20
	21
Lesson 8 – Getting Ready for Bed	22
Saving Energy	23
	24
Additional information and answers	25

No part of this publication may be reproduced in any form other than by the original purchaser.  
Only direct copies from this master are permitted. No sale of these copies is permitted.  
No copyright rights are extended or implied to secondary users.

ISBN 978 1 84198336 3

© Learning Materials Ltd 2011

Published by Learning Materials Ltd, Dixon Street, Wolverhampton, WV2 2BX

[www.learningmaterials.co.uk](http://www.learningmaterials.co.uk)

Tel: 01902 454026 Fax: 01902 457596

e-mail: [learning.materials@btinternet.com](mailto:learning.materials@btinternet.com)