Planet Asthma Art & Activity Book

Yvonne Coughlan & Dan Hopewell
Bromley by Bow Centre

Planet Asthma could not have happened without the support and funding from Asthma UK and Pfizer UK Foundation. Thanks to The Bromley by Bow Centre for its encouragement of the inclusion of the arts in every sphere of healthcare.

We would like to thank everyone who has been involved with Planet Asthma especially all of the participants, young people and staff from Bromley by Bow Centre, year 5 Marner Primary School and Chrisp Street Health Centre parents and children.

A big thank you to City Gateway and InsideOut for all their hard work and enthusiasm. Thank you to Clare Palmier for her creativity and ambition and to Lekker Design for the challenge of pulling together all of our thoughts.

We hope that you enjoy this manual and find the activities useful and engaging.

Yvonne Coughlan and Dan Hopewell, May 2009.

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Introduction

Planet Asthma is an innovative arts and health project that has been funded by *Asthma UK's* Challenge Fund 2006/2007. *Asthma UK* is the charity dedicated to improving the health and well-being of the 5.4 million people in the UK whose lives are affected by asthma.

Planet Asthma was developed as a creative response to addressing levels of asthma knowledge and understanding through art in an area of high asthma prevalence in the east end of London.

Planet Asthma has used creativity to harness the enthusiasm and interest of young people and an older youth audience through a series of facilitated art workshops and the design and development of the *Planet Asthma* website to explore the themes and issues of understanding asthma, asthma trigger factors and asthma management and control.

Planet Asthma at **www.planetasthma.com** acts as an archive of the project and a portal for accessing asthma information from the *Asthma UK* website.

Planet Asthma was designed and developed at The Bromley by Bow Centre and workshops were held at The Bromley by Bow Centre, The Marner School and Chrisp Street Health Centre.

The Project has been supported by Pfizer UK Foundation.

The Bromley by Bow Centre

The Bromley by Bow Centre is a pioneering voluntary organisation led by the local community. Established in 1984 the Centre has over the years developed an innovative model to regenerate the area.

The Bromley by Bow Centre aims to remove the label ‘deprived’ from the community by supporting the development of health, learning, employment and enterprise, using the Arts as a catalyst and a key form of engagement.

Bromley by Bow Centre, is an exemplar regeneration charity in Tower Hamlets, which develops community based projects, and offers an innovative and highly commended Creative Arts Programme that supports learning and development for individuals and the community. Tower Hamlets is a community rich in its cultural diversity but challenged by high rates of chronic disease and low levels of skills, education, qualifications and economic activity.

www.bbbc.org.uk

Planet Asthma project background

Planet Asthma is an asthma project with an alternative approach to health education. *Planet Asthma* uses art and exercise in a workshop programme of activities that have been developed by practising artists and health practitioners Yvonne Coughlan (Practice Nurse and artist) and Dan Hopewell (Director of Services and public artist) at The Bromley by Bow Centre in East London.

Planet Asthma has used art, technology and exercise to engage children, young people and their families to promote awareness and understanding of asthma.

Young people with asthma aged 11-16 years old participated in design workshops with the *Planet Asthma* team to develop the *Planet Asthma* website and learn video and photography skills. They accompanied the team to film the *Planet Asthma* workshops that were held for the younger participants at the Marner Primary School and Chrisp Street Health Centre meanwhile attending their own asthma education discussions at The Bromley by Bow Centre.

The *Planet Asthma* workshops were structured to engage with children aged 5 -11 years to develop a sound understanding of asthma management and trigger factors through discussion and art and exercise. The art made during the sessions was hung in situ.

The children participated in exercise classes alongside the art workshops and to focus on learning a series of breathing exercises. The workshops ran in two different settings with a multidisciplinary approach to the programme delivery.

Planet Asthma has been developed from *Art and Asthma* which was a pilot art and health project run at The Bromley by Bow Centre in 2003.

In that project *Art and Asthma* engaged with participants from the asthma register at Bromley by Bow Surgery in a series of workshops running for 13 weeks and looked at improving asthma management using a range of art and creative exercises.

The workshops were held in the surgery reception and art made during the workshops was exhibited in this area throughout the project.

Many of the components of the *Art and Asthma* project have been adapted for use with *Planet Asthma*.

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Why art and health?

Bromley by Bow Centre has used arts in its delivery of services over many years. The Centre has a long history of embedding creativity in a range of services and a knowledge and understanding that art can be used effectively to deliver health promotion messages and to work with different groups.

There is an increasing realisation that arts can be used in facilitation and in practice not only as the means to run groups and workshops but as the message itself. As more arts and health projects are held across the country there is a growing awareness and recognition of their value.

Arts and health are, and should be firmly recognised as being integral to healthcare provision and healthcare environments. Arts and health projects and programmes can have a variety of benefits for those directly taking part in them and those who enjoy the art produced and this importantly includes clinical and support staff.

Arts and health initiatives are delivering real and measurable benefits across a wide range of priority areas for health, and can enable the Department and NHS to contribute to key wider Government initiatives.

(Report of the review of Arts and Health working group April 2007).

Who will this guide be useful for....
How to use this guide

Planet Asthma workshops have taken place in two community settings, a primary school and a general practice with the initial stage held at The Bromley by Bow Centre. Neither the school nor the surgery had prior experience of art and health workshops. Each workshop series was delivered with consideration for the specific characteristics of the setting and with the individuals in each institution such as nurses, teachers, volunteers and artists.

The aim of *Planet Asthma* is that the project manual will be a practical guide for use in a multitude of settings. *Planet Asthma* is not been designed for exclusive use in either schools or primary care settings. Our experience with *Planet Asthma* has demonstrated that it can be effective in a variety of settings within a group, or using components of the art activities on a one to one basis and that the art activities demonstrated in this booklet are generic and transferable.

The workshops activities are designed for use with children aged 5-11.

The themes and activities which form the basis of *Planet Asthma* are a guide only and can be adapted and easily replicated and the discussion points that accompany the activities are based on what the project has found to be of use.

What is recommended however is that the art activities are used in conjunction with asthma knowledge and information, in order that the health information is reinforced by the practical activity.

In Schools

Planet Asthma is a means to deliver a number of curriculum areas through a project based, multi disciplinary approach. It can be delivered as a single class project or scaled up for year or key stage group or a whole school. Additionally children can involve parents, carers and other family members in some aspects of the research related to the project.

The *Planet Asthma* content and activities have been designed so that they can be delivered by school personnel without the need for additional input from outside experts. However schools may wish engage the support of additional expertise from others such as school nurses, health professionals, artists and media groups and the project may serve to develop stronger links between the school and health education organisations, health centres and arts organisations.

Schools may wish to link the delivery of *Planet Asthma* to a wider initiative such as a healthy schools programme, an arts month or a pupil led research project on society.

Planet Asthma is developed though teacher led input, student participation and research and if delivered in its entirety uses Art, English, Maths, ICT and Physical Exercise. This guide provides a number of sequenced 'lesson plans' that can serve as the basis for planning the delivery of *Planet Asthma* in a school setting.

The programme allows for an exploration of asthma: as a medical condition, its underlying causes, the factors that trigger attacks and asthma self management. The topics are explored and reinforced through the visual arts, writing, research including monitoring studies of self and peers, data collection and analysis and exercise.

Given that circumstances will vary greatly from one school to another, the intention is for this guide to serve as a starting point from which a programme and activities can be devised and adapted in the light of local circumstances.

In addition, the learning points are identified in the manual for teachers.

In Healthcare settings

Healthcare settings can be varied in their nature. There may be facilities and space to run group work and sessions within larger health centres. Individuals with a range of skills can run the workshops as an in depth knowledge of asthma is not a pre requisite for *Planet Asthma* however, a background understanding of asthma and the ability to direct questions to appropriate resources such as a practice nurse, doctor or *Asthma UK* adviceline is essential.

All of the activities within the manual have been referenced to correspond to the appropriate health information and all of the asthma information has been resourced from www.asthma.org.uk

Planet Asthma uses a structured approach to its sessions building on knowledge levels and reinforcing basic asthma health messages. The step-by-step approach looks at understanding asthma, asthma triggers and managing asthma.

The challenge for the health setting is in taking asthma management from the consulting room into the public sphere using art as a vehicle to catalyse discussion and to assist in the promotion of health. *Planet Asthma* has used a number of approaches to engage patients in workshop activities from direct referral to workshops, personal invitation and drop in clinics. All means of engagement are of value. Patients will gain the maximum benefit from attending all workshops however drop-in clinic activities can be planned with a specific asthma focus in mind.

Identifying interested and enthusiastic staff to oversee the workshops is necessary in order to plan and organise workshops effectively. Practitioners and volunteers will find that the workshops are fun and exciting and that they greatly add to the portfolio of asthma care. The smooth running of a workshop is aided by helpers and volunteers in order to assist the children and their parents with the workshop activities.

The priorities for running successful workshops are organisation of invitations or publicity for a full programme, to identify a suitable space for activities, to ensure all materials and equipment are to hand and to have tried the workshop activities prior to running a workshop. There should also be time allocated to set up, run and clear up from all activities.

In the following pages the workshop activities have been laid out in a workable format and designed for ease of use.

Displaying work

The process of making art and the product itself are both important. Art is made to be seen and the art created as part of a *Planet Asthma* project needs to be displayed!

It is important that the participants understand that their art has a purpose and is valued. *Planet Asthma* seeks not only to develop knowledge and understanding, but also as a participatory project to empower those who participate – both those children and young people that have asthma and those that don't. The display of *Planet Asthma* artwork is important as a means of empowering the participants. Whilst the display of children's and young people's work is of course part and parcel of a school environment this is certainly not the norm in most healthcare settings. As well as giving the participants a great sense of worth, displaying the art also helps to communicate messages about asthma to the viewers who may be other members of a school community and in a health centre can include all those waiting for a consultation.

If *Planet Asthma* is run as a series of workshops over a period of time, for example a weekly workshop over 3, 4 or 5 weeks, try to ensure the artwork from one week is already beautifully displayed before the following week's session. This can have a powerful effect, seeing the art from week one go up before week two's session is tremendously affirming for the participants.

Documenting *Planet Asthma*

Use photography to record these activities. If an older age group of young people are involved they can be the recorders of workshop activity photographic and filming the sessions. Later they can manipulate the images using Photoshop (then to present back to the group as facilitated post workshop discussion).

Note – the *Planet Asthma* project found that the recording/observing role was a successful way to involve an older age group with asthma, adding kudos without detracting from assimilating knowledge of asthma management and understanding.

Planet Asthma website

Making a website and engaging with an older asthma age group.

The activities that have been detailed in this book are the art workshop activities that are suitable for an audience of younger children.

It is worthwhile mentioning however the differing mediums of film and computer that held the interest of the older age group: a core group of 7 young adults who were the *Planet Asthma* web designers. They participated in the following workshops

- Basic understanding of the internet and web addresses
- Using Dreamweaver as a web design tool
- Website design and layout
- Brainstorming the design for *Planet Asthma* and the website image
- Understanding cameras and video recording
- Practical sessions using camera and video

Their involvement kick started *Planet Asthma* and their workshop sessions were ample opportunity to explore issues of asthma and its management.

Themes and Activities

A step-by-step guide

Session 1

Introductory session – Breathing, the airways and asthma

Health topics

Understanding normal physiology – what is where in the body
Looking at the lungs and breathing

National Curriculum Links

Science

KS1 SC2 Life processes and living things

1a the differences between things that are living and things that have never been alive

1b that animals, including humans, move, feed, grow, use their senses and reproduce

KS2 SC2 Life processes and living things

2c that the heart acts as a pump to circulate the blood through vessels around the body, including the lungs.

Health information

The first component of the *Planet Asthma* workshops is exploring what happens in the airways and to gain an understanding of asthma.

Many children and adults have a limited knowledge of what happens in their bodies, how the respiratory system works and what happens when they have asthma. Insight to treatment and better asthma control can be gained by understanding normal body processes. The following art activities help explore the airways and are designed to develop an understanding of the physiology of the lungs and airways. We have referred to the airways as pipes or tubes.

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Discussion points

- What happens when we breathe
- What are the airways
- What is asthma
- Why is asthma a problem

What happens when we breathe?

Breathing moves air into or out of the lungs to give us oxygen that our bodies need to live. As cells use oxygen they give off carbon dioxide, which is a waste product. Breathing takes in the oxygen and breathing out removes the carbon dioxide..

What are the airways?

The airways are tubes that allow air to reach the lungs. The airways start from the nose and eventually reach the airsacs at the end of the airways.

What is asthma?

Asthma is a condition that affects the airways – the small tubes carrying air in and out of the lungs.

What causes asthma?

It is difficult to say for sure what causes asthma. What we do know is that:

- you are more likely to develop asthma if you have a family history of asthma, eczema or allergies
- it is likely that this family history, combined with certain environmental factors, influences whether or not someone develops asthma
- many aspects of modern lifestyles – such as changes in housing and diet and a more hygienic environment – may have contributed to the rise in asthma over the last few decades
- research has shown that smoking during pregnancy significantly increases the risk of a child developing asthma
- children whose parents smoke are more likely to develop asthma
- environmental pollution can make asthma symptoms worse and may play a part in causing some asthma
- adult onset asthma may develop after a viral infection
- irritants found in the workplace may lead to a person developing asthma (occupational asthma)

The scale of the problem

5.2m people in the UK are currently receiving treatment for asthma.
1.1m children in the UK are currently receiving treatment for asthma.
There is a person with asthma in one in five households in the UK.

Curriculum referencing of these topics in relation to the curriculum for Key Stage 1 and Key Stage 2 and the learning points need to be noted. This probably relates to biology, PSHE, society/environment.

Art activities

The aim of the art activities is to create art that focuses on and utilises breathing and blowing as an integral part of the way of making the art. Through making art in this way the participants become more conscious of the process of breathing. These activities have been designed for the ease of results, they can allow the project to engage each participant and enable the display of their participation at an early stage, thus engendering a sense of involvement and identification with the project.

- Blowing bubbles
- Bubble paintings – a bowl full of bubbles
- Bubble paintings – floating bubbles onto paper

Start the group activities by asking the class to focus on their breathing. Encourage the group to breathe in deeply and exhale a long slow breath. This activity will focus the group and can be used as a warm up to aid workshop discussion.

National Curriculum Links

Art

KS1 **Exploring and developing ideas**

1b ask and answer questions about the starting points for their work, and develop their ideas.

Investigating and making art, craft and design

2a investigate the possibilities of a range of materials and processes

2b try out tools and techniques and apply these to materials and processes, including drawing.

2c represent observations, ideas and feelings, and design and make images and artefacts.

Breadth of study

5a exploring a range of starting points for practical work

5c using a range of materials and processes, including ICT (if children are taking the photographs)

KS **Exploring and developing ideas**

1a record from experiences and imagination, to select and record from first-hand observation and to explore ideas for different purposes

Investigating and making art, craft and design

2a investigate and combine visual and tactile qualities of materials and processes and to match these qualities to the purpose of the work.

2b apply their experience of materials and processes, including drawing, developing their control of tools and techniques.

Breadth of Study

5a exploring a range of starting points for practical work

5c using a range of materials and processes, including ICT (if children are taking the photographs)

Blowing bubbles

Materials and Equipment

Bubble hoops/bubble mixture
(as used in children's parties)

Black backdrop
(a black sheet will do)

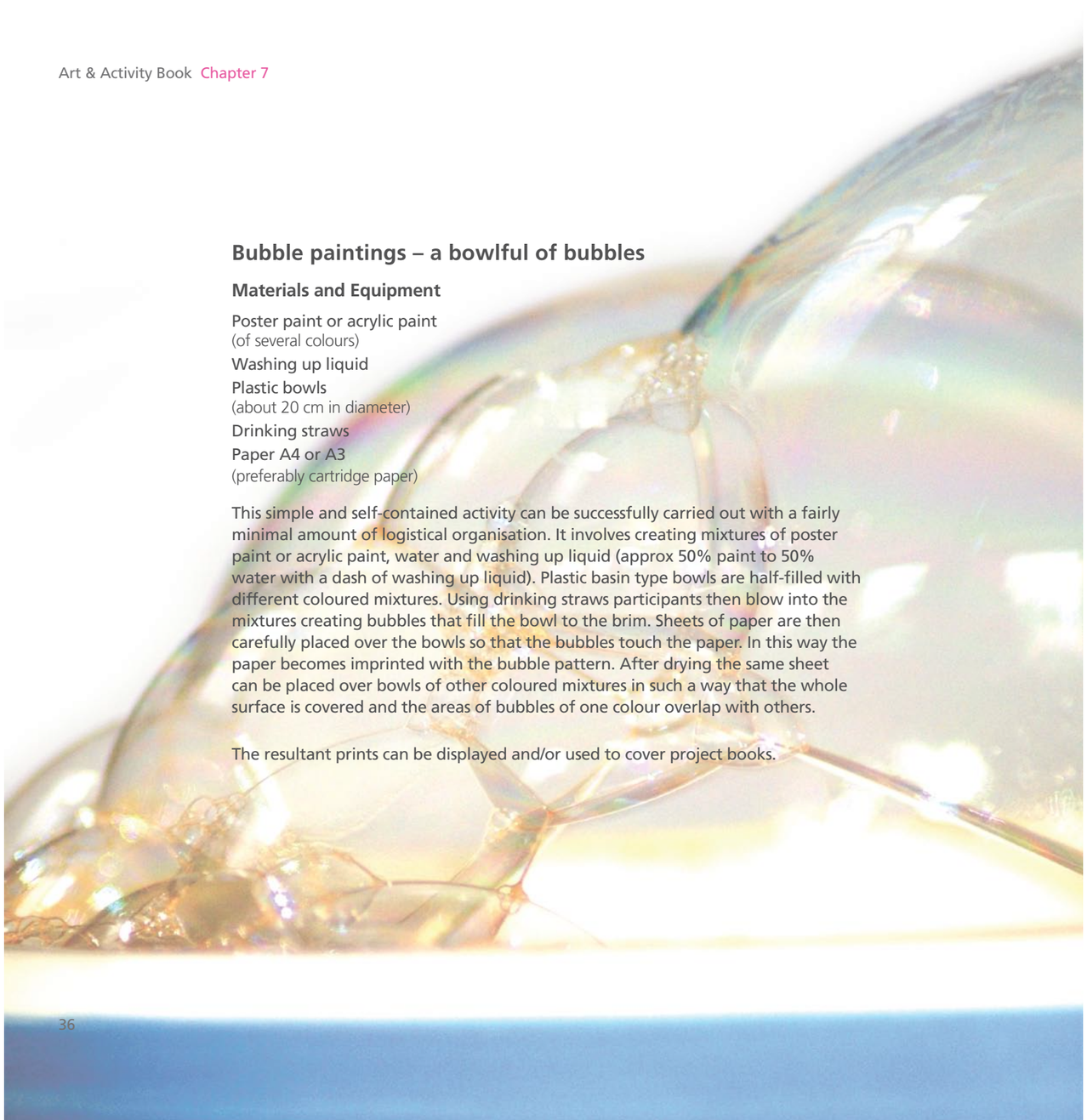
Camera
(digital or film)

Photopaper or high quality copier paper
A4 or A3)

This activity allows each participant to be photographed, creating a visual record of participants.

Participants are asked to stand in front of a black back-drop and blow bubbles using a bubble hoop and bubble mixture. The participant should stand sideways to backdrop, blowing bubbles parallel to the backdrop. Whilst the participant blows the bubbles someone else, either an adult or another participant takes photos. The intention being to capture the act of blowing and a beautiful stream of bubbles. In order to get the best effect some care may be needed with composing the photos and the lighting.

The photos can be enlarged and printed to A4 or A3 on either photographic paper or simply on a good quality photocopier using high quality copy paper. The result can form part of a display of the first week's workshop and act as a record of those that participated.



Bubble paintings – a bowlful of bubbles

Materials and Equipment

Poster paint or acrylic paint
(of several colours)
Washing up liquid
Plastic bowls
(about 20 cm in diameter)
Drinking straws
Paper A4 or A3
(preferably cartridge paper)

This simple and self-contained activity can be successfully carried out with a fairly minimal amount of logistical organisation. It involves creating mixtures of poster paint or acrylic paint, water and washing up liquid (approx 50% paint to 50% water with a dash of washing up liquid). Plastic basin type bowls are half-filled with different coloured mixtures. Using drinking straws participants then blow into the mixtures creating bubbles that fill the bowl to the brim. Sheets of paper are then carefully placed over the bowls so that the bubbles touch the paper. In this way the paper becomes imprinted with the bubble pattern. After drying the same sheet can be placed over bowls of other coloured mixtures in such a way that the whole surface is covered and the areas of bubbles of one colour overlap with others.

The resultant prints can be displayed and/or used to cover project books.

Bubble paintings – floating bubbles onto paper

Materials and Equipment

Watercolour inks
Washing up liquid
Disposable plastic cups
Bubble hoops
Plastic dust sheeting
(to protect surrounding area)

Paper (preferably cartridge, either many sheets of smaller sizes, A4 and A3, or larger sized paper in sheets or from a roll such as 1m or 1.5 metres wide)

This activity is most successfully carried out as a collective exercise. Just before the activity rightly coloured watercolour ink is mixed with washing-up liquid, in such way that the mixture will work as a bubble mixture. It is important to get the proportion of washing-up liquid to ink right, the aim being to get a mixture that is sufficiently viscose so as to form bubbles, whilst having a high enough ink content so that the bubbles have a density of colour (suggested mixture is 80% ink and 20% washing up liquid).

Mixtures should be made of a variety of colours, you may want to give some thought to combinations of colour so that a harmonious range of colours is used. To use the coloured mixtures they should be poured into plastic cups or similar receptacles. Using bubble blowing hoops the mixture is blown over sheets of paper that are laid on a table or the floor.

The intention being that the bubbles land on the paper and burst making an imprint as they do.

Due to the difficulty of determining the exact landing point of the bubbles, a reasonably large surface area should be covered with paper, this can either be by placing a series of small sheets of paper together or by using large sheets of paper (1.5m x 1m or larger). Additionally surrounding surfaces may need to be protected from stray bubbles.

A large surface area of paper on a table or pair of tables will allow several participants to be blowing bubbles at the same time. Through judicious placing of the bubbles interesting and contrasting colour combinations can be achieved.

If the bubble paintings are done on large single sheets they can be displayed as murals, alternatively, if done on smaller sheets they can be displayed as a series.

The bubble paintings may be displayed as artworks in their own right, or used as backdrops on which to stick other pieces of project work such as project write ups, documentary project photos, and statistical project data.

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Session 2

Breathing, the airways and asthma

Session 2 expands the theme of the airways in greater detail and reinforces the initial learning developed in Session 1 to give a more comprehensive understanding of the how the airways change with asthma.

Health topics

- Looking at the airways
- Relating the shape of inflamed airways to asthma symptoms (demonstration with visual aids – tubes)

National Curriculum Links

Science

KS1 SC2 Life processes and living things

1a the differences between things that are living and things that have never been alive

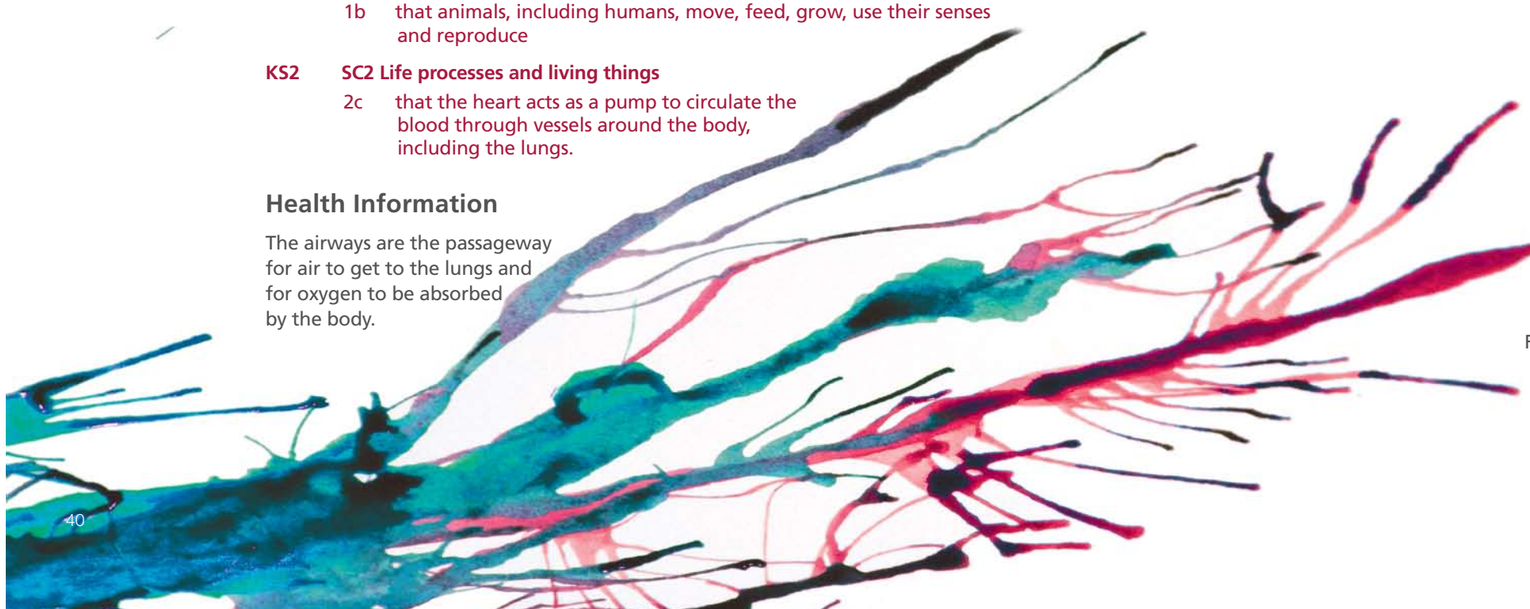
1b that animals, including humans, move, feed, grow, use their senses and reproduce

KS2 SC2 Life processes and living things

2c that the heart acts as a pump to circulate the blood through vessels around the body, including the lungs.

Health Information

The airways are the passageway for air to get to the lungs and for oxygen to be absorbed by the body.



When a person with asthma comes into contact with something that irritates their airways (an asthma trigger), the muscles around the walls of the airways tighten so that the airways become narrower and the lining of the airways becomes inflamed and starts to swell. Sometimes sticky mucus or phlegm builds up which can further narrow the airways.

When the airways are tight and narrow less air can be taken in from a breath.

Discussion Points

- Normal airways – how breathing works
- What causes asthma

It is difficult to say for sure what causes asthma. What we do know is that:

- you are more likely to develop asthma if you have a family history of asthma, eczema or allergies
- it is likely that this family history combined with certain environmental factors influences whether or not someone develops asthma
- many aspects of modern lifestyles – such as changes in housing and diet and a more hygienic environment – may have contributed to the rise in asthma over the last few decades
- research has shown that smoking during pregnancy significantly increases the risk of a child developing asthma
- children whose parents smoke are more likely to develop asthma
- environmental pollution can make asthma symptoms worse and may play a part in causing some asthma
- adult onset asthma may develop after a viral infection
- irritants found in the workplace may lead to a person developing asthma (occupational asthma).

Further information can be sourced at www.asthma.org.uk

Art Activities

The following activities can be a messy so cover tables with plastic sheeting, roll up sleeves and give everyone aprons to wear. Fingers will get stained with ink.

The aim of these activities is to make a link between blowing and the airways using the patterns that are made from blowing ink. Compare the blown ink pictures to photographic images of the airways and use the sponges to demonstrate the makeup of the lungs. Discuss sponges and the way that oxygen filters into the lungs.

The blown ink and sponge paintings will dry quickly and can be cut to size. Hang the work when it is dried to give an instant art exhibition.

Use the stencils to discuss how air flows through the tubes and compare and contrast the shapes of both normal and inflamed airways.

Discuss how airways tightness affects the breathing and look at tube cross sections. Ask the participants to imagine that the air is the paint and talk about how the passage of the ink is obstructed by the stencil.

National Curriculum Links as for Session One (page 30) Art KS1 and KS2

- Blow paintings – ink and straws
- Blow paintings – diffusers and stencils
- Sponge paintings
- Airways mobiles

Blow paintings – ink and straws

Materials and equipment

Watercolour inks
(various colours)
Pipettes
Drinking Straws
(preferably wide diameter)
Plastic dust sheeting
(to protect surrounding area)

Paper (preferably cartridge, either many sheets of smaller sizes such as A4 and A3 or larger sized paper in sheets or from a roll such as 1m or 1.5 metres wide)
Aprons

This activity is an enjoyable exercise that is colourful and gives instant results.

Brightly coloured ink is dropped on to the paper using a pipette or dropper to form an ink globule. Participants are asked to put the straw to their mouth and blow the droplet of ink around the paper. This can be repeated.

Blow paintings – diffusers and stencils

Materials and Equipment

Watercolour inks (various colours)
Pre-cut stencils (cartridge paper various sizes, circles and undulating circles)
Diffusers (may be substituted with blow pens)
Aprons
Plastic dust sheeting (to protect surrounding area)
Paper (preferably cartridge, either many sheets of smaller sizes, A4 and A3, or larger sized paper in sheets or from a roll such as 1m or 1.5 metres wide)

This activity involves using a diffuser to blow fine mists of ink through cut card stencils onto paper. The ink pattern is formed by the stencil to create patterns and shapes representing the normal and the inflamed airways (circular and undulating circle shapes respectively). Participants can select to use stencils of a variety of sizes and shapes and through repeated application with a variety of ink colours beautiful patterns can be built up.

Diffusers and blow pens are instruments for spraying tiny droplets of ink over a wide surface area. They can be used on their own to create random shapes or over a stencil creating a predetermined pattern. They both rely on blowing to create a fine mist of ink.

For hygiene reasons each participant must be issued with his or her own diffuser or blow pens.

Note: Diffusers are more versatile but require more blow and a little more practice than blow pens. Before running the workshop familiarise yourself with how to use a diffuser.

Method

Position the paper in front of the participant and select a coloured ink. Place a stencil onto the paper. Insert diffuser into ink. Blow the diffuser altering the diffuser angle if the ink does not emerge as a mist (it will suck the ink from the bottle and the ink will not go into the mouth) and it will leave the diffuser as a fine mist which can be blown across the stencil onto the paper.

Sponge paintings

Materials and equipment

Watercolour inks (various colours)
Poster paint (various colours)
Pre cut stencils (cartridge paper various sizes, circles and undulating circles)
Paper (preferably cartridge, either many sheets of smaller sizes, A4 and A3, or larger sized paper in sheets or from a roll such as 1m or 1.5 metres wide)
Sponges
Plastic dust sheeting (to protect surrounding area)
Aprons
Shallow dishes or saucers (for the paint and ink)

This hands-on activity can be carried out using watercolour ink and paint. The ink gives a full and vibrant colour when it is dry and the poster paint will dry with a matt finish.

Participants have enjoyed this activity immensely as it is easy to do and the finished results are very bold and colourful.

Prepare the paints and the inks in flat dishes or saucers. Choose an airways stencil and place it on the paper ensuring the stencil is flat. Using a small sponge dab the ink or paint onto the paper and around the stencil edge. Apply more colours in this way and lift the stencil when finished to see the final result.

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Airways mobiles

Materials and Equipment

Watercolour inks
Pre-cut stencils (various sizes, circles and undulating circles)
Diffusers
(may be substituted with blow pens)
Sponges
Straws
Pipettes
Pre cut mobiles shaped in the undulating circle – inflamed airways shapes

Plastic dust sheeting
(to protect surrounding area)
Paper for making mobile shapes
(preferably moderately heavyweight cartridge or card, A3 and A2 sized, also A1 if available)
**The activity requires a pre drawn mobile shape – suggested shape is a series of inflamed airway shapes (undulating circles) of approximate size 25cm to 40cm in diameter (larger if you use A1 sized paper) with sister shape to this drawn as a reverse in order that the shapes can be matched for hanging.*
Aprons
Scissors

*In this activity ensure that mobile shape for each of the participants has a sister shape. See the note above **

The aim of this activity is to draw together all of the techniques used in Session 1 and to enjoy making a mobile that is inventive and colourful. The repetition of the airways shape serves to reinforce the understanding of normal and inflamed airways.

Give each participant a piece of paper with the mobile shape pre drawn on it for this activity and ask them to decorate it as they wish using the sponging and blowing techniques that have been discussed previously.

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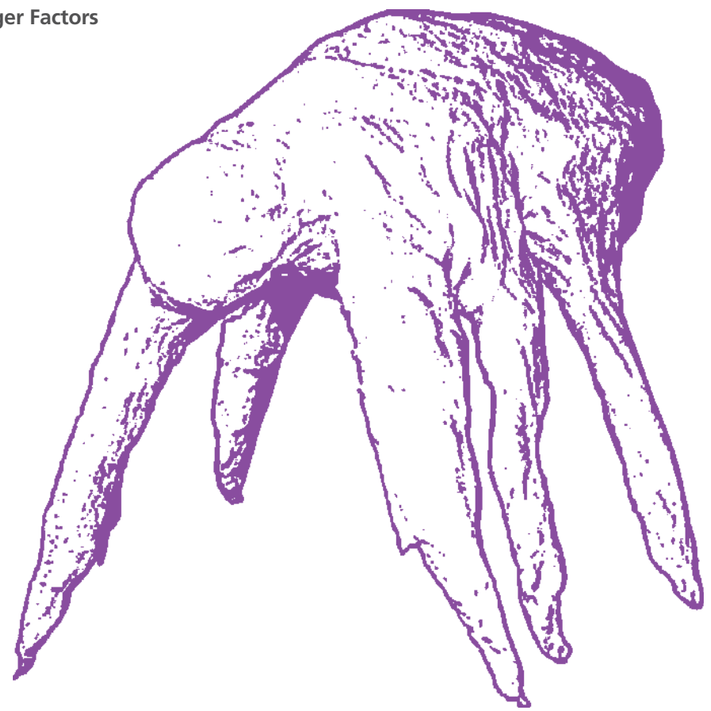
Session 3

Trigger Factors



Session 3 looks at developing an understanding of the effect of trigger factors on the airways.

The participants use their knowledge of asthma and airways inflammation gained from the previous sessions to understand the importance of trigger factor recognition in the management of asthma.

Health topics

- What are trigger factors
- Understanding the impact of trigger factors
- Trigger factor avoidance

National Curriculum Links

Science

KS1 SC2 Life processes and living things

1a the differences between things that are living and things that have never been alive

1b that animals, including humans, move, feed, grow, use their senses and reproduce

KS1 PSHE and Citizenship

3a how to make simple choices that improve their health and well-being.

KS2 SC2 Life processes and living things

2c that the heart acts as a pump to circulate the blood through vessels around the body, including the lungs.

2g about the effects on the human body of tobacco, alcohol and other drugs, and how these relate to their personal health.

KS2 PSHE and Citizenship

3a what makes a healthy lifestyle, including the benefits of exercise and healthy eating, what affects mental health, and how to make informed choices.

Health information

A trigger is anything that irritates the airways and causes the symptoms of asthma.

Everyone's asthma is different and a person with asthma may have several triggers. An important aspect of controlling asthma is avoiding triggers.

It may be impossible to avoid all triggers; nevertheless identifying them can reduce unnecessary symptoms and better control your asthma

It can be difficult to identify exactly what triggers asthma in a particular individual. Sometimes the link is obvious, for example when asthma symptoms start within minutes of coming into contact with a cat or dog. But some people can have a delayed reaction to an asthma trigger, so some extra detective work may be needed.

Discussion points

- What are trigger factors and the impact of them – do we have our own experiences to discuss?
- How to minimise the impact of trigger factors – trigger factor avoidance
- Smoking

Asthma triggers A-Z

Animals, air pollutants, colds and viral infections, emotions, exercise, food, hormones, house dust mites, medicines, moulds and fungi, pollen, smoking, weather.

Use the *Asthma UK* website to investigate the effects of the trigger factors above and look at ways to minimise their impact or discuss ways to avoid them.

Art Activities

The house dust mite is a common trigger factor. House dust mites are minute creatures that live on old skin that has been shed and inhabit soft furnishings and bedding in particular. Planet Asthma has focussed on the house dust mite in order to discuss trigger factors in greater detail. The visual qualities of the dust mite are highly engaging and the children have all enjoyed making their own creatures.

House dust mites made from mod roc (plaster of paris impregnated bandage) are exciting and colourful to make. They can be grouped together once made and painted to form a dust mite invasion and are eye catching when displayed this way.

The process of making the house dust mites stimulates lively discussion amongst participants and can lead to research and investigation into microscopic elements.

National Curriculum Links as for Session 1 (page 29)

Art

KS1 and KS2

- House Dust Mite model making
- Pollen and Moulds activity sheets

House dust mites

Materials – Part 1

Newspaper
Buckets
Aprons
PVA glue, thinned solution
(1 part PVA 2 parts water)
Masking tape, 1 inch width

Materials – Part 2

Buckets
Bowls
Scissors
Mod Roc (crepe bandage impregnated with plaster of paris) 3 - 4 rolls per child
Acrylic paints (a selection of colours) or
Poster paints and PVA glue
Paint brushes

This can be a messy activity so cover tables with plastic sheeting, roll up sleeves and give everyone aprons to wear.

Some children may be unfamiliar with model making and 3D form and as a result may initially require close guidance.

Once again it is advisable to have familiarised yourself with the process and sequence of making house dust mites.

Method

Preparation
Cover all surfaces with plastic dust-sheets which can then be taped to table legs (this is recommended as plastic sheeting often slides around a table when there are a group of children present).

Making the bodies

To make the dust mite body roll newspaper into an oval ball ensuring that it is solid (it will need to support the plaster of Paris bandage). Construct a smaller oval ball, which will be the dust mite head and attach this to the main body with tape.

Making the legs

Roll up pieces of newspaper approx 15cm x 30cm until they form a tube and secure them with masking tape. Repeat this process until you have 6 matching legs. Fashion 2 of the legs to a slightly smaller size.

Fasten the legs to the body as shown in the photograph. Secure tape to the dust mite body until it is solid and robust.

Covering the dust mite with mod roc

Cut the mod roc bandage into strips approx 20cm long (approx 30-40 strips per child). Fill bowls with warm water.

Ensure that the participants are protected with aprons or craft smocks and demonstrate the plastering process. Points to stress are working quickly with the plaster because of its fast setting time and the need to smooth the plaster-impregnated bandage round the dust mite form to ensure it is strong.

Cover the dust mite bodies with the mod roc and smooth the exterior with wet hands. Leave the dust mite to harden and dry.

The plaster dust mite can be painted with a acrylic paint or a 50/50 mixture of poster paint and PVA glue which will dry with a sheen and act as a protective coat.

Pollen and moulds

Materials and equipment

Pollen and moulds colouring sheets

Felt pens and coloured crayons

Card

Craft scissors and glue stick

SEE APPENDIX FOR COLOURING SHEETS

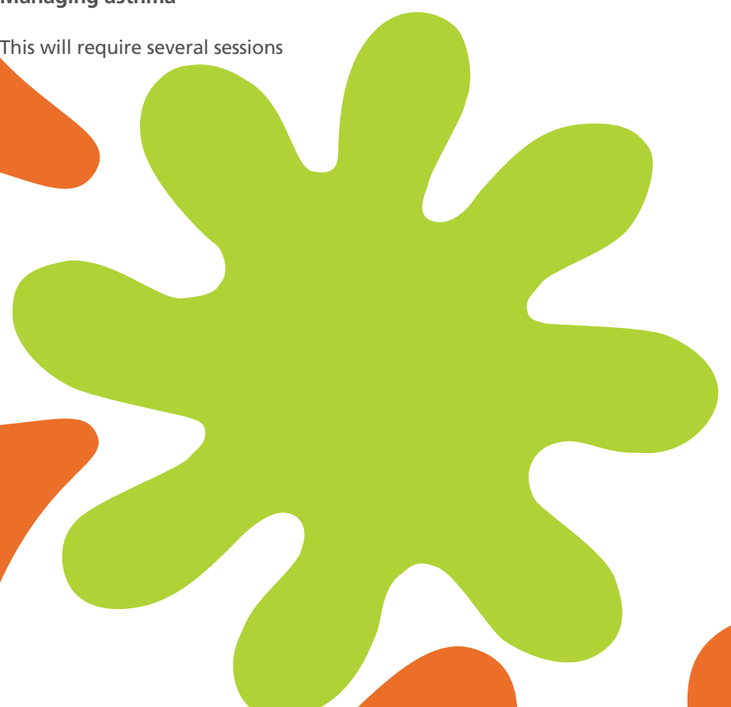
These activity sheets are images of pollen and moulds and are useful as an introductory activity. They require very little preparation and are suitable for children of all ages.

The brightly coloured images can be cut out once they have been coloured in and collaged onto a large sheet of card thus making one large communal artwork.

Session 4

Managing asthma

This will require several sessions



If asthma is under control you are more likely to have a better quality of life and be more able to do the things you want to. The activities in Session 4 look at aspects of managing asthma and developing a better understanding of how to take control of asthma.

The bronchial tree activity consolidates understanding of inhalers, their colours and their uses, and reinforces the participants' knowledge of the lungs and their physiology.

Peak Flow charts enable the participants to familiarise themselves with peak flow monitoring as a means of assessing asthma control alongside symptom recognition.

Health topics

- How to manage asthma
- Is your asthma under control
- Signs that your asthma is not well controlled

National Curriculum Links

Science

KS1 SC2 Life processes and living things

1a the differences between things that are living and things that have never been alive

1b that animals, including humans, move, feed, grow, use their senses and reproduce

KS1 PSHE and Citizenship

3a how to make simple choices that improve their health and well-being.

KS2 SC2 Life processes and living things

2c that the heart acts as a pump to circulate the blood through vessels around the body, including the lungs.

2g about the effects on the human body of tobacco, alcohol and other drugs, and how these relate to their personal health.

KS2 PSHE and Citizenship

3a what makes a healthy lifestyle, including the benefits of exercise and healthy eating, what affects mental health, and how to make informed choices.

Health information

A person with poor asthma control may have the following symptoms

- difficulty sleeping (including cough)
- asthma interfering with usual activities – e.g. work, school etc.

If asthma is not well controlled signs may include:

- Waking at night with coughing, wheezing, shortness of breath or a tightness in the chest
- Having to take time off work or school
- Finding it difficult to breathe, and breathing short shallow breaths
- Needing more and more reliever treatment
- Finding that reliever does not seem to be effective anymore
- Not keeping up with usual levels of activity or exercise

This may involve reviewing what medicines you are taking, triggers and lifestyle to see if anything can be changed.

Art & Activity Book Chapter 7

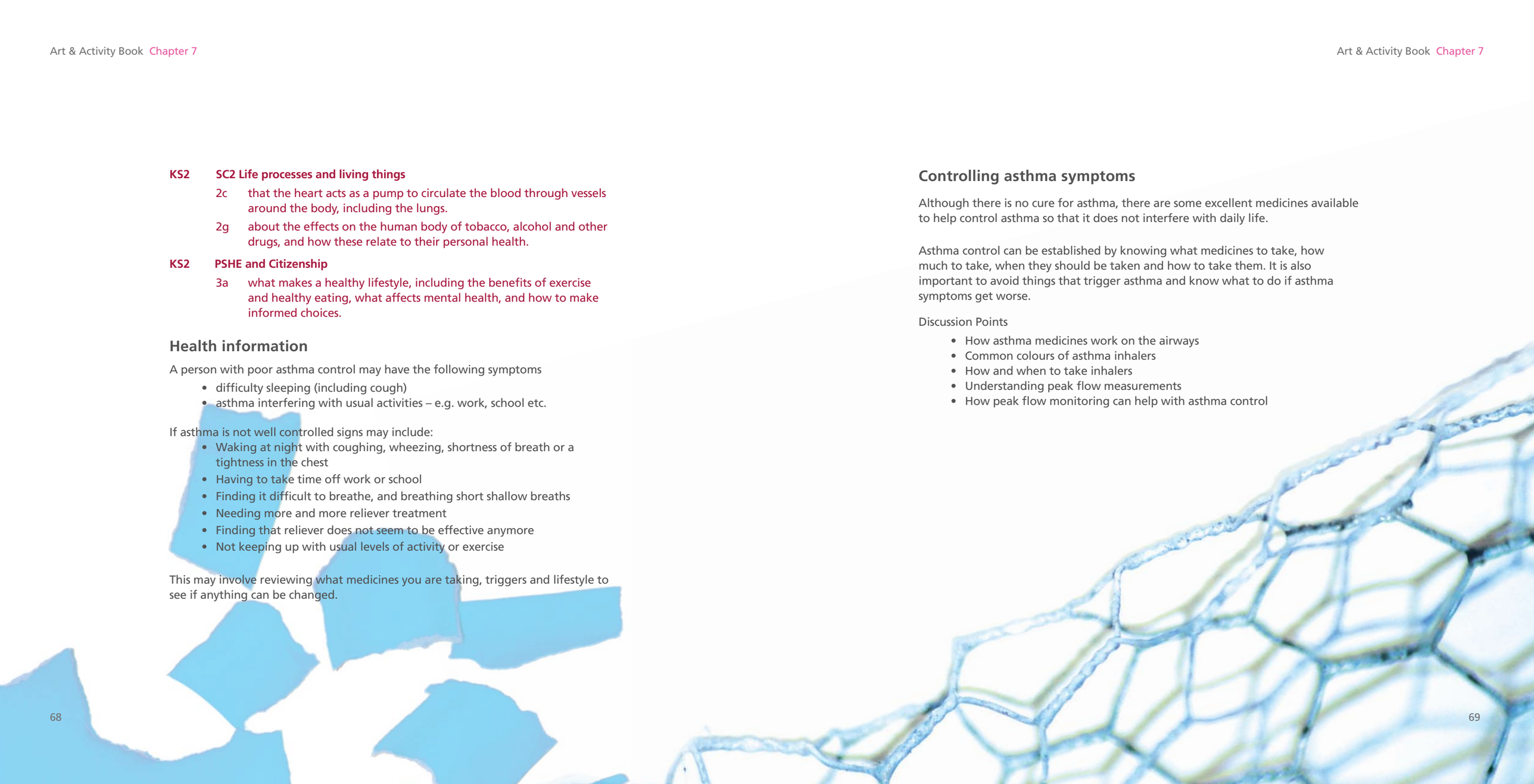
Controlling asthma symptoms

Although there is no cure for asthma, there are some excellent medicines available to help control asthma so that it does not interfere with daily life.

Asthma control can be established by knowing what medicines to take, how much to take, when they should be taken and how to take them. It is also important to avoid things that trigger asthma and know what to do if asthma symptoms get worse.

Discussion Points

- How asthma medicines work on the airways
- Common colours of asthma inhalers
- How and when to take inhalers
- Understanding peak flow measurements
- How peak flow monitoring can help with asthma control



How asthma medicines work on the airways.

The inhaler colours and when to take the inhalers.

Everyone with asthma should have a reliever inhaler. Reliever inhalers are usually blue.

Relievers are medicines that are taken immediately to relieve asthma symptoms. They quickly relax the muscles surrounding the narrowed airways. This allows the airways to open wider, making it easier to breathe. Relievers are essential in treating asthma attacks. You should take a dose of reliever inhaler when you are having asthma symptoms.

Preventer inhalers control the swelling and inflammation in the airways, stopping them from being so sensitive and reducing the risk of severe attacks.

The protective effect builds up over a period of time so they need to be taken every day (usually morning and evening) even when you are feeling well.

Preventers do not give immediate or quick relief when you are breathless but instead they reduce long-term inflammation. Preventer inhalers usually contain a low dose of steroid medicine.

Preventers are usually brown, red or orange inhalers.

Use the links in the *Asthma UK* website medicines section to find out more about the different types of asthma medicines available, what they do and how to take them.

www.asthma.or.uk/all_about_asthma/medicines_treatments/index.html

Understanding peak flow measurements and peak flow monitoring.

Some people may find it useful to have a peak flow meter to help them manage their asthma.

A peak flow measures how hard and quickly you blow air out of your lungs. The meter has a marker that slides up the scale as you blow out. The better controlled your asthma, the harder you will be able to blow out and the higher your peak flow score will be. Peak flow readings are measured in litres per minute.

A peak flow diary is a good way for you to record your peak flow and/or symptoms on a regular basis. It helps you to see when your asthma is getting worse or better.

A single peak flow reading is not very useful in helping decide how well controlled asthma is. Instead it is best to take a series of peak flow readings over a few weeks taking three readings every morning and evening. This will help to show how asthma varies from the beginning to the end of the day. It is common for morning readings to be lower than evening readings.

The differences between each reading will show whether asthma is being properly controlled.

Art Activities

The bronchial tree activity is designed for group participation. The bronchial tree is based on the shape of the airways and is designed to be suspended from a ceiling. The framework of the tree is made from chicken wire and should be made by a group of children who are older than the 5 – 11 year olds that the majority of the activities are intended for. If older children are not available the framework could be made be adults. The framework needs to be prepared before the workshop and the younger participants engage with the application of the coloured paper.

The coloured paper corresponds with the colours of the inhalers and as the workshop progresses the discussion can focus on the inhalers and their action on the airways.

- Bronchial Tree
- Peak Flow Charts

National Curriculum Links

If children are involved in making the tree this will cover many elements of the Design and Technology Curriculum.

- Developing, planning and communicating ideas
- Working with tools, equipment, materials and components to make quality products
- Evaluating processes and products
- Knowledge and understanding of materials and components.

KS1 Maths

5a solve a relevant problem by using simple lists, tables and charts to sort, classify and organise information

5b discuss what they have done and explain their results.

KS2 Maths

Using and applying handling data

1a select and use handling data skills when solving problems in other areas of the curriculum

1c identify the data necessary to solve a given problem.

1e check results and ensure that solutions are reasonable in the context of the problem

1f decide how to best to organise and present data

1h explain and justify their methods and reasoning

2f draw conclusions from statistics and graphs and recognise when information is presented in a misleading way, explore doubt and certainty and develop an understanding of probability through classroom situations: discuss events using a vocabulary that includes the words ‘equally likely’, ‘fair’, ‘unfair’ and certain.

Bronchial Tree

Bronchial trees can be made of varying sizes, a 2 – 2.5 metres tall one will be impressive hanging in a high ceilinged area such as an entrance or library. Guided by a picture of the bronchial tree the intention is to create a simplified version of the breathing apparatus from the trachea through to the alveoli. Large bronchial trees will need to be built up over a number of sessions and for ease can be placed on tables to work on.

Materials and Equipment

Chicken wire
Wire to fasten
Wire cutters
PVA Glue
White paper
Coloured paper
Miniature disco balls or similar

The first decision is to define the size of tree to be made. This will depend on the space to hang it, the amount of time available to make it and the room to store it whilst in the process of making.

The trachea is the largest tube, which tapers and divides into two tubes, one for each lung. From the main tube that goes into each lung come of a number of smaller tubes and these also taper and subdivide, finally reaching the end with the alveoli. Starting with the trachea each tube or cylinder can be made separately and then attached to the previous one using small lengths of wire as fasteners. Keep checking the tree as the cylinders sub divide to ensure that its overall shape and proportions are in keeping with the drawing. The cylinders that form the branches of the tree should neither be totally regular and perfect nor should they be flat.

Once the structure has been completed it should be covered with a few layers of white paper, dipped in PVA, much in the way one would build up a papier mache model. Once the bronchial tree has gained strength with the layers of white paper coloured tissue paper dipped in PVA should be applied. Using brown, blue, green and orange tissue paper one can denote the different types of inhaler. The number of layers of paper and the amount of glue will determine the strength of the tree. The paper should be applied in several sessions and a good deal of glue will drip out whilst it is drying so the whole tree should be worked on over a sheet of plastic.

Peak Flow Charts

Materials and Equipment

Peak Flow Meters
Disposable mouth pieces for Peak Flow Meters
Peak Flow Charts – see appendix
Felt pens or pencils
Ruler
Watercolour inks
Washing up liquid
Disposable plastic cups
Bubble hoops
Paper (preferably cartridge, the largest size available, either in sheet form, 1 x 1.5 or 1.5 x 2 meters, or from a roll such as 1 or 1.5 meters wide, alternatively if large paper isn't available A3 or A2 sheets can be stuck together to form a single sheet)
Plastic dust sheeting (to protect surrounding area)

The Peak Flow Charts use the Blow Paintings – floating bubbles onto the paper technique developed in Session 1.

The intention is to create a very large sheet on which to record a group of children's peak flow readings. If working from a roll, cut of a piece of paper about 1.5 x 1 meters or 2 x 1.5 meters. If sticking sheets of smaller paper together you should create a single sheet of a similar size.

Blow bubbles of coloured ink onto the sheet of paper (following the instructions for Blow Paintings in Session 1). When the bubbles have dried draw a peak flow chart or grid on the sheet.

The paper is the ready to be hung on a wall and used as a giant peak flow chart on which the peak flow readings can be recorded.

A Peak Flow Meter is a mechanical device that is held to the mouth and blown through using a "huffing" breath. The breath moves an indicator on the device that shows the measurement in litres of the peak flow huff or breath. Peak flow readings can vary according to the effort of the breath and the technique used for the procedure, so each participant should do three readings and take the highest reading as their peak flow measurement. Peak Flow Meters are used to monitor peak flow in those with asthma, this work as a feedback loop and allows the individual to know how their airways are performing. Knowing the state of the airways can help those with asthma to take the steps to control their asthma. A series of low peak flow readings can indicate poorly controlled or worsening asthma.

The scores for each child can be marked on the chart (using a different coloured marker for each child or labelled dots) and successive days added to give a reading of the whole class over a week. Additional charts could be made to record successive weeks.

Peak Flow Meters are available from chemists; one or two can serve a group of children. For hygiene reasons disposable mouthpieces should be used and changed between each child using the device.

Session 5

***Planet Asthma* Game and Exercises**

This will required several sessions

The *Planet Asthma* game has been developed as a means of reinforcing and assessing the children's knowledge and understanding of the science and PSHE POS which have been covered. It is the finale of the project and brings together all of the workshop components. The game is an inclusive team activity.

The *Planet Asthma* game requires the children to be divided into two teams of equal numbers. Team sizes are variable from a minimum of 6 children per team to 15 children per team.

Props for the *Planet Asthma* game are made prior to the game and can be a workshop activity in combination with the information about asthma triggers . The props can then used in the obstacle course.

The intention of the *Planet Asthma* game props is to add relevant visual reminders about the trigger factors relating to asthma and thereby contribute to the purpose of the game.

How to play the *Planet Asthma* game.

The object of the *Planet Asthma* game is that the children navigate an obstacle course that represents the airways tubes, trigger factors and mucous, whilst holding a balloon that they have blown up before the start of the game. At the end of the obstacle course they answer a question about asthma put to them by a member of the opposing team. They score a point for their team if they answer the question correctly or go back to rerun the obstacle course if the answer is incorrect. Whilst one team's children are passing through the obstacle course, some of the opposing team are trying to dislodge the balloons they are carrying by flapping sheets over those traversing of course.

Minimum number of players 6 children per team. (2 teams to play)

Materials and Equipment

Balloons
Activity tubes
Rope ladder
Cones
Obstacle course equipment

Trigger factor props
(see *Planet Asthma* game props below)
Blankets or sheets
Pin board
Asthma quiz questions

Lay out the obstacle course on the floor.

Divide the group into two teams and allocate the following tasks

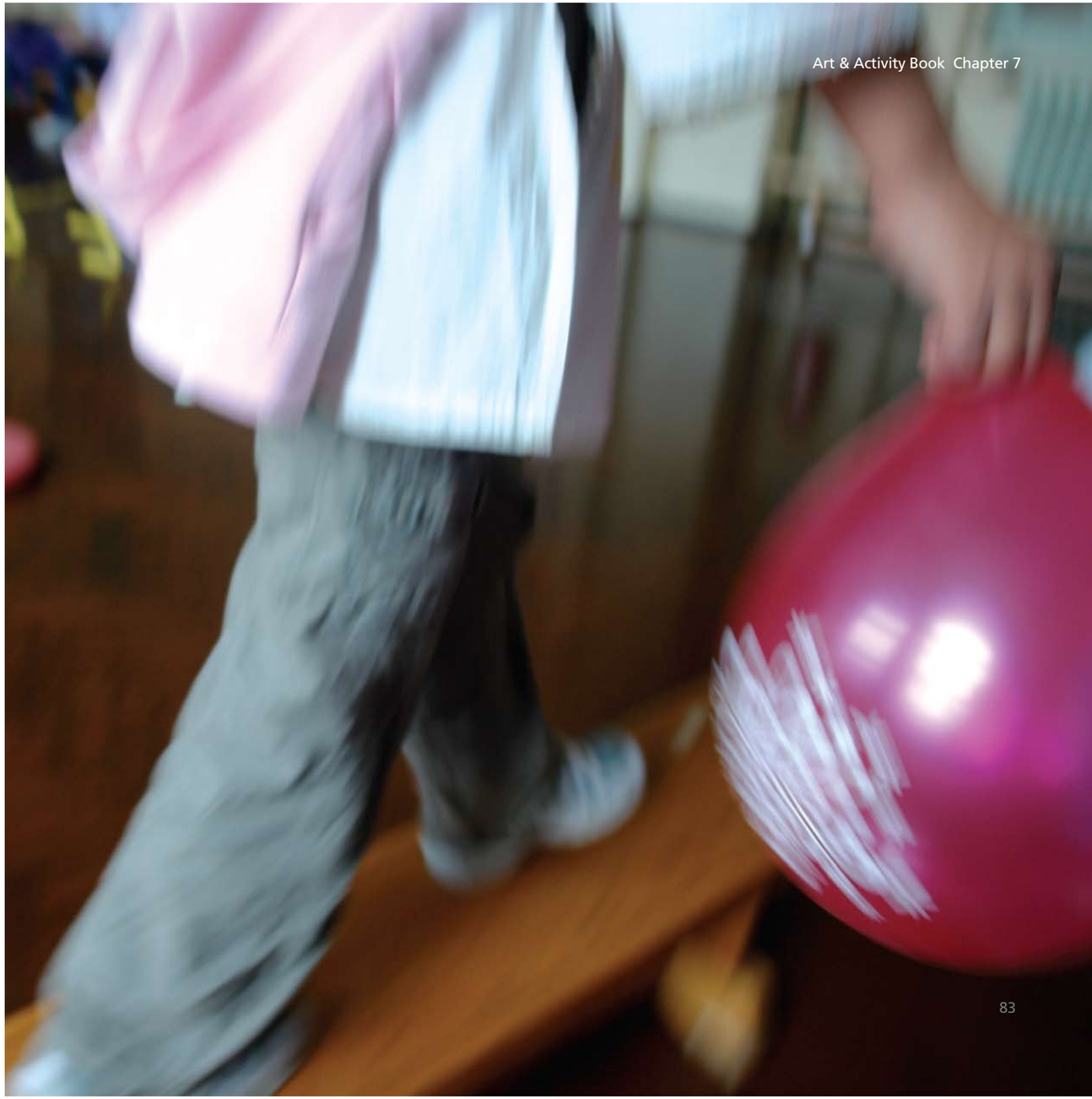
Team 1
Manning the obstacle course and asking the asthma questions at the end of the route.

- Flapping the sheet or blanket to create a path of resistance to the oncoming team members (4 children)
- Asthma quiz masters (2 children)
- Route minders (2 children)

Team 2

- Stand in a line each child blowing up its own balloon
- Traversing the *Planet Asthma* obstacle course
- Answering questions on asthma when they get to the end

The game is overseen by an adult who will blow a whistle for the game to start and send the children into the obstacle course at staggered intervals.



Art Activities

Props for the *Planet Asthma* game

Materials and Equipment

Card (thick cards, A2 or larger)
A selection of marker pens
Poster paints in a variety of colours
Stanley knife or cutting blade
Strong adhesive tape
Stapler

The props made for the *Planet Asthma* game are visual representations of trigger factors made large enough to run around (approx size 1m x 1m).

- House dust mites
- Thunderstorms
- Moulds
- Flowers and pollens
- Sprays
- Paints
- Animals

Ask the participants to work in pairs and draw or paint a trigger factor prop onto the card. When drawn, cut out the shape of the trigger factor and then draw round it onto another sheet of card, thus making two identical trigger factors that can be stapled together, back to back.

Then paint or colour in both trigger factors. When they are dry staple them together leaving the bottom side unstapled. The bottom part of the trigger factor can then be slipped other the end of a cone to become a free standing part of the obstacle course.

Planet Asthma game questions

What is asthma?

What part of the body is affected by asthma?

Name one asthma trigger factor?

How is asthma treated?

Where can you get information about asthma?

What is another name for the breathing tubes?

What do people use to take their asthma medicine?

What is the most common colour of the reliever inhaler?

What is one of the common colours of a preventer inhaler?

How can you tell if asthma is getting worse or not well treated?

How can you measure your asthma?

What does your peak flow show?

What do house dust mites feed on?

How many legs does a house dust mite have?

What is the shape of the inside of your airways/breathing tubes if you don't have asthma?

Where are the lungs?

Where are the airways/breathing tubes?

What happens inside the breathing tubes when you have asthma?

Can animals get asthma?

How does a reliever inhaler help with asthma?

How does a preventer inhaler help with asthma?

Can children with asthma exercise?

Is coughing at night a sign of well controlled asthma?

What colour inhaler is given in an asthma attack?

Planet Asthma exercises:

Exercise has been an integral component of *Planet Asthma* and exercise classes have been delivered alongside the art workshops.

Planet Asthma has worked with InsideOut healthy lifestyles to deliver group exercise workshops of 15-20 mins duration.

Each class has participated in yoga deep breathing whist standing and sitting. The focus is on deep inspiration and exhalation emphasising calm and controlled breathing. The group activity allows the children to stand and work together quietly developing rhythms of breathing. The children visualise their airways as they are breathing in and out which reinforces the *Planet Asthma* activities the children have been involved with.

Conclusion

Planet Asthma has used art to bridge the gap that exists in accessing health information and understanding it in order that a difference is made to children with asthma and their parents. It has done this on a small scale as a pilot project which has generated enthusiasm across all the pilot sites, from the participants and from the individuals who have helped in the workshop development and running.

In feedback a parent commented that '*Planet Asthma* was a great course – very interactive, fun filled and educational. Such courses should be made widely available and as early as possible'. She said that the course had helped her understand asthma; how the relievers and preventers work in the body and the effect of trigger factors in asthma and that she had better understanding of recognition of worsening asthma and how to manage her child's asthma.

All of the children who participated in *Planet Asthma* have enjoyed the course and their comments have reflected this 'the course was fun because it was a mixture of work, art and fun games', 'the course helps you to know how you can control asthma you really have to go and see all the amazement and join in the fun I have learnt so much because I have asthma myself'.

Planet Asthma has been fun, challenging, interesting and exciting for us at Bromley by Bow.

We hope that by using this book you will be inspired to use the activities for yourself and for the benefit of children and young people with asthma around you.

Asthma UK

Asthma UK is the charity dedicated to improving the health and well-being of the 5.4 million people in the UK whose lives are affected by asthma. Our vision is 'control over asthma today, freedom from asthma tomorrow.'

Asthma UK works together with people with asthma, health professionals and researchers to develop and share expertise to help people increase their understanding and reduce the effect of asthma on their lives.

- Asthma UK are the largest independent funder of research into asthma in the UK funding approximately £3 million of research each year.
- The Asthma UK Adviceline provides independent and confidential advice from asthma nurse specialists.
- Asthma UK provides information on asthma for people with asthma, carers, schools and healthcare professionals.
- Asthma UK funds projects to improve the care for people with asthma.
- Asthma UK runs educational holidays for children and young people with asthma.