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Manchester City Council is delighted to support Wild in Art in presenting *Bee in the City* and its exciting Learning Programme for schools and community groups.

Creating your own 3-D Bee as part of our citywide project will give your pupils the chance to develop and celebrate their individual and collective creativity. This pack provides plenty of support materials to inspire your class (or group) and encourage them to explore Manchester’s famous bee symbol and how it relates to the city’s incredible story - past, present and even future!

After the success of the Read Manchester BookBench trail last summer, the Council and the National Literacy Trust are excited to continue their partnership with Wild in Art for the *Bee in the City* event. As part of the Read Manchester campaign, the Bee a Reader initiative will promote the joys of books and storytelling, encouraging reading for 10 minutes every day to help boost literacy levels.

The *Bee in the City* public art trail provides a fantastic opportunity for children and young people to showcase their ideas, inventiveness and artistic abilities to a huge and very appreciative audience from Manchester and beyond.

This special event will connect all of Manchester’s communities in a thoroughly enjoyable and accessible way, and I’m sure I’ll ‘Bee’ amazed by all your designs this summer!

**Joanne Roney OBE**  
*Chief Executive, Manchester City Council*

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**Section 1**  
**Message from Wild in Art**

Welcome to the *Bee in the City* Learning Programme and thank you for choosing to take part in one of Manchester’s biggest ever public art events! We are delighted to have teamed up with Manchester City Council and The Lord Mayor of Manchester’s We Love MCR Charity to present this spectacular trail for everybody to enjoy.

Wild in Art events celebrate the power of creativity to engage children and young people in cross-curricular learning through fun, hands-on and inspirational arts activities. The heraldic worker bee represents the hard-working, enterprising and community-spirited people of Manchester. I am sure your pupils or group members will enjoy exploring all aspects of our bee theme and I’m really looking forward to seeing the results of their ideas, creative endeavour and artistic talents.

We hope this project will complement your existing activities, inspire you to link creativity to your community, and even enjoy supporting the fundraising effort for the We Love MCR Charity - to improve the lives of Manchester people and help residents to reach their full potential.

Wild in Art passionately champions the importance of art for everybody and the social, cultural and educational benefits art provides. This project gives you an exceptional opportunity to get children and young people excited about arts and literacy, and engage them in important topics - from citizenship, environmental issues and the natural world, to health and wellbeing, to name a few. With your support we can make this a very special summer for the project’s participants, Manchester’s communities and visitors to the city.

*Bee inspired, bee creative - Bee in the City!*

**Sally-Ann Wilkinson**  
*Director, Wild in Art*
How to get the best out of this pack

This Learning Resource Pack is designed for pupils aged 6-15 years old. It is flexible and easy to use, offering a framework for delivering a raft of creative, cross-curricular activities.

We strongly recommend that you look through the whole pack to gain an overall picture of its contents and the possibilities for its use. We also suggest that you and your colleagues have a good look at the accompanying resources which can be viewed and downloaded from beeinthecitymcr.co.uk/learning. These include fascinating facts and worksheets, additional materials and links, Arts Award logs to record pupils’ creative journeys and information to inspire their creativity.

Whichever group of pupils you are working with, and whatever theme you choose to explore, it is most likely that your starting point will be something that is happening in your area or a topic that some of your group members have a particular interest in.

The pack emphasises group participation, which is both an appropriate and fun way for pupils to gain a better understanding of the project and feel greater ownership of it.

Ultimately, this pack will enable your school or community group to:

- Produce your completed sculpture, which will be publicly displayed during the summer of 2018. At the end of the event, you will be able to collect your sculpture (or have it returned), for display in your school or for use as a future educative resource, or you may find it has fundraising potential for your school or group.

- Introduce the sculpture: ‘A new arrival in school’ suggests how you might introduce your sculpture to the school in fun, exciting and innovative ways and with a whole school approach.

- ‘Getting creative’ explains how the sculpture is constructed, discusses the materials that can be used to decorate and finish it, and gives examples of previous schools’ ideas and the finished products, to inspire and enchant you.

- ‘Classroom guides and lesson plans’ delivers a creative and clear cross-curricular, key stage appropriate (KS1-3) toolkit of classroom-based sessions with suggested resources.

- The ‘Arts Award’ section provides ideas and resources to help you link this education sculpture project to the nationally recognised Arts Award. If you already have Arts Award accredited staff, this can be easily incorporated, giving an added dimension to your project, or you can identify local training opportunities to up-skill staff and provide CPD options. Also provided are printable Arts Award logs; these are free to download and can be used, whether your school is an Arts Award centre or not, as a good way to record the creative journey.

- Finally, it will give you fundraising support and advice. We’d love for your school or group to choose The Lord Mayor of Manchester’s We Love MCR Charity as its ‘Charity of the Year’ and use this project to help us raise important funds to support its work - improving the lives of Manchester people and bringing positive benefits to communities throughout the city. In ‘Make it count’ we suggest some fun fundraising activities for schools, PTAs and staff to consider.

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In order to allow us to create signage plaques, and to post details and descriptions of your sculpture on the project website and associated app, we require you to complete the following ‘Design submission form’ and return it as soon as possible.

You can do this online at beeinthecitymcr.co.uk/learning-designform. Alternatively, complete the form overleaf, scan it and email it to learning@beeinthecitymcr.co.uk.

Please complete the ‘Design submission form’ by 18 May 2018.

Your school or group has full creative license when designing and creating your sculpture, although we ask that you avoid brands or trademarked imagery.

If you have questions about your sculpture or the art materials to use please email: learning@beeinthecitymcr.co.uk
Design submission form

Lead contact at the school:

School name (as it appears on publicity):

School address:

Postcode: __________________________ Telephone: __________________________

Email: __________________________ Website: __________________________________________________________________________

Facebook / Twitter handles: __________________________________________________________

Additional second contact name and contact email:

Proposed title/name for your Bee sculpture: __________________________________________

Please give a brief description (50-100 words) of your sculpture's design e.g. what inspired its design and who created it. This will appear on the website, plaque and in other appropriate publications.

Acknowledgement

Each participating school and group will be acknowledged for its artwork in connection with the project, including, but not limited to:

• On the project website
• On the trail map/app
• In press and promotional material pertaining to the event.

Copyright

The submitted artwork must be your own and original. By submitting your artwork to the project you permit Bee in the City, Wild in Art and The Lord Mayor of Manchester’s We Love MCR Charity to reproduce and display your artwork.

Signed: __________________________ Dated: __________________________
Section 2
A new arrival in school

Wild in Art has teamed up with artist Jenny Leonard to produce a video resource for schools and groups working with their sculptures. It provides step-by-step guidance on how to plan your project, what materials to use and how to turn your ‘bare’ sculpture into a work of art!

Watch it online at https://youtube.com/watch?v=B9q9dRMKKj0

You can have a great deal of fun with your sculpture’s first appearance in school. You might choose to:

- Make the sculpture’s arrival something that the whole school gets involved with, perhaps by holding a literacy or arts day that coincide with it. Keep the sculpture hidden in the school grounds, elaborate with a papier-mâché container or cage and mystery pollen trail, and tell pupils that the local radio or news reported sightings or strange occurrences in the local area. Get your community involved - police, neighbourhood watch and the local radio could be invited to come to the school to assess and report on the unusual goings on! Each year group could focus on a different writing style – factual reporting, fiction, poetry etc. and consider what exactly the mystery visitor could be. Really build up to the grand reveal!

- Present the sculpture as a mystery item wrapped in paper or enclosed in a box, with a couple of strategically placed hand-sized windows. It won’t be long before pupils start peering and reaching inside.

- Make the unveiling of your sculpture the focal point of a school assembly, where you launch your school’s involvement in the project. Invite the ‘stars of the week’ up to the front to officially ‘open’ the box.

- Invite a local artist, poet, community champion, celebrity or a member of the Bee in the City team to come and take part in your unveiling.

- Invite pupils to bring their favourite cuddly toy or own version of your sculpture to assembly for a themed show and tell.

- Once the sculpture is revealed, have it pop up in different places around the school and integrate it into daily school life. Could it be a helper in the canteen or the librarian’s assistant? Could it sweep leaves from the school playground or hang out in the school’s forest area? You can share these images with all the other schools involved via social media: post them on the school’s website to build momentum for the project or include them in newsletters for parents.

- Your sculpture can have, and continue to build, its very own identity and personality.

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- Holiday challenges can be set, with prizes on offer. Encourage pupils to get out of the house and engage with the sculptures - there could be rewards for the best ‘sculpture selfie’; they could support the fundraising effort by completing all or part of the trail, or by keeping a holiday diary or blog where they reflect on the trail and talk about their adventures along the way. Why not set a literacy challenge to see how many books, poems or non-fiction texts your young people can find and read that thematically relate to your sculpture?

- Inviting your sculpture to be part of parents’ evening or school open days and events.

- Consider having a ‘whole school design’ – incorporating an idea from every child in the school into the final product. Each pupil could contribute a fingerprint, handprint, tiny illustration, mosaic tile, word or message. This way every child will feel included and invested in the project.
Section 3

Getting creative with your sculpture

Each sculpture is made of lightweight fire-resistant fibreglass. The surface is primed by the manufacturer and is ready to paint. The sculptures are stable and free-standing but please ensure that there is adequate adult supervision during the design and creative process.

Please consider the materials you use for your design carefully. Designs may range from the use of solid acrylic colours, to more elaborate designs using, for example, glitter, decoupage, recycled materials and mosaic. Let your imagination run wild but please ensure that all materials used are non-hazardous and are securely attached to your sculpture.

The adult responsible for coordinating the project should ensure that the sculpture is dry and sound and where possible, any 3-D or sculptural elements are securely fastened, safe and suitable for public display (i.e. don’t present a trip or fire hazard, or have protruding, sharp elements).

Sculpture dimensions:

Height = approx. 750mm
Width = approx. 610mm
Weight = approx. 15 kg

Solvent-based markers, such as Sharpies and felt tip pens, often react to varnishes. We strongly discourage their use for this reason. If you do decide to use solvent-based markers, it’s important that when you come to do the varnishing, you test the varnish on a small, discreet area of your sculpture first.

All of the sculptures from the project will be displayed in secure, inside venues, so you do not have to worry about them withstanding the elements. However, please do take into account that your sculpture will be displayed in a public place and that, over the course of the trail, thousands of visitors will want to hug and pose with your sculpture, so making sure they have a good, hard-wearing finish is key.

If you choose to display the sculpture outside when it returns to your school or group, you may need to consider giving it a second coat of varnish and mounting it on a secure plinth.

Urban Hygiene’s urbanhygiene.com easy-on Protective Coating Varnish and non-yellowing Yacht Varnish (available from most DIY stores) provide great, long term, anti-weathering, gloss protection. For a semi-matt finish, we recommend Exterior Wood Clear Coat, manufactured by Polyvine and available from Dulux Decorating Centres. Remember: if you use a water-based varnish, it will be possible to sand down the sculpture, so that it is once again a blank canvas and the fun can begin again. Most DIY stores also sell a matt or gloss spray-on varnish. This provides a good, light coat, ideal for sculptures that will be living indoors, but as with all of these products, it should be applied by an adult in a well ventilated space.

Themes and motifs

As mentioned previously in this pack, we ask you to avoid using corporate branding and identities as part of your sculpture design, but we are happy for you to incorporate your school logo or motto in a discreet way. The sculpture as a whole may take on a theme, linking to one of your curriculum topics i.e. Egyptians, Romans, Tudors etc., or draw inspiration from a literary character, a local celebrity or another geographically appropriate element or theme. Get the children’s creative brains buzzing with possibilities and look forward to a whole wave of ideas and suggestions that exceed your wildest dreams.

Your team might want to devise a design that in some way incorporates the environment in which the sculpture is stationed, and to consider whether there are any 3-D objects in which the sculpture is stationed, and to consider whether there are any 3-D objects that could be added to the display. They might want to think about how new technology could be involved, such as solar panels, touch screens or motion sensors. Your sculpture may be a muse or model for specially designed clothes, or wear a super-hero utility belt studded with eco-friendly gadgets.

Could your IT department or technician support the project by creating an app, ibook, blog or Twitter feed to track and document your young people’s experience? This would be useful for evaluation purposes, but is also a way to engage with young people for whom technology is quite possibly a key motivating factor. Consider having an interactive element to your sculpture, bringing it to life with a voicebox, horns or sirens for example. Could pupils use their knowledge of electrical circuits, even, to create multiple choice quizzes that use lights or buzzers to indicate a correct answer? As they say, the possibilities are endless!

Please be aware that power points may not be available at trail locations and such a design may only be properly up and running when the sculpture is on display within your school – before and after the trail.

Engaging and inspiring your design team

It may be that your whole school, or a selected year or targeted group takes part, with their job being to devise the design, but you will probably then want to select a smaller group of pupils to work on the implementation of this. Staff might choose to select a couple of pupils from each year group, or pupils might join an afterschool or lunchtime club in order to be involved in the final realisation. A panel of teaching and support staff, community members, pupils, parents and members of the Senior Leadership Team will need to meet to select a design, or perhaps to select several designs and decide how to fuse these together.
A plenary session can be used to share ideas and explore possibilities for themes that could be incorporated into the design (e.g. the design could tell a story, carry a message or tell us something about the school or the pupils behind the design).

Discuss, develop, define and deliver

First ideas

Invite your pupils to explore the sculpture, and explain that it is going to be decorated. Ask them to think about different possible designs and methods of decoration (e.g. painting, block printing, mosaic and collage). Record your pupils’ initial thoughts and ideas – these first, instinctive ideas are important and play a big part in the final design.

Research

In pairs or small groups pupils can research worker bee links, facts, themes and activities provided in Section 4. Encourage pupils to collectively jot and sketch down their responses to this information on large sheets of paper. There are lots of ideas for themes later in this pack, and lesson plans, which explore how you might use them with your class.

The following questions might be useful to pose to your young people to help them make decisions about the style and purpose of their sculpture. This would provide a great opportunity for them to practise negotiation and teamwork skills.

A couple of questions to think about before choosing your design:

- Our sculpture is going to be viewed by several different audiences – school staff, pupils, visitors, parents, the local community, tourists to the city, and it could even ‘travel’ further afield.
- How do we want them to react to our design?
- Do we simply want the people who see our design to think it’s beautiful and recognise that we are talented artists?
- Do we want our design to tell them something or encourage them to think about an issue or react in a certain way?
- If we are trying to send a message, should our message be obvious or would it be better to keep things interesting by making the things we’re trying to say less obvious?
- Are we going to try to make our audience think about issues and reach their own conclusions, or are we going to give answers?
- Will our designs help the audience to learn about things we already know, or should we use the design process to learn about new things ourselves?
- How are we going to decide if our design has been a success?
- Are we going to paint the sculpture or could we design and decorate our sculpture differently?

Mind mapping

These can be created in a very similar way to the ‘idea pictures’. They should be very visual and will be useful in terms of developing ideas in a way that may not have been obvious at first. ‘Mind maps’ work best when there is an icon next to every idea and when different colours are used to separate different ideas/topics. Mind maps can cover just one theme or many.

Idea pictures

Use a mixture of drawings, paintings, photographs, and pictures printed from the internet or cut from magazines. Your ‘idea pictures’ could include collected leaves, bark, twigs or a selection of wool and fabrics – in fact, anything pupils feel could be relevant to their ideas. Think about, and include, colour, pattern and texture, as well as images.
Creating your artwork - do’s and don’ts

**Do**

- Do unwrap your sculpture upon delivery, check it over and report any damage immediately.
- Do make a note of your Sculpture Reference number and include this on each design submission form you send. The Sculpture Reference is unique to each sculpture. N.B. This is different to your Order Reference.
- Do go over your sculpture with a finegrade sandpaper, followed by a wipe over with a solution of warm water and a small amount of mild detergent (washing up liquid). The sanding gives a key to the surface prior to painting. N.B. Please wear a dust mask whilst sanding.
- Do ensure that there is adult supervision at all times when handling the sculpture and art materials.
- Do use water-based acrylics or emulsion paints. Brands include Liquitex, System 3 or Valspar.
- Do use Posca Pens for applying detail. These are water-based, acrylic paint markers.
- Do encourage painters to wear aprons or painting shirts – acrylics, in particular, are very difficult to remove from clothing once dry.
- Do immediately wash any brushes and painting palettes you have used (before paint is dry) if you want to be able to use them again.
- Do make sure any materials are non-hazardous.
- Do fix any 3-D elements securely. Consider carefully if they will withstand the demands of being on public display for 10 or more weeks.
- Do make sure that 3-D elements don’t present a hazard i.e. there are no sharp, protruding elements and it can’t be tripped over.
- Do varnish your sculpture. We recommend at least two coats.
- Do test the varnish on a small, discreet area of your sculpture first before applying it all over.
- Do make sure paint is completely dry before applying varnish with a brush or roller.
- Do allow 12 hours for a coat of varnish to dry. Wait 48 hours after your final coat of varnish before handling the sculpture.
- Do varnish your sculpture in a dry environment – humid conditions can affect its application.
- Do mix Urban Hygiene’s easy-on Protective Coating varnish products according to their instructions to ensure the correct consistency.
- Do contact Urban Hygiene for advice if you are using their varnish products. The team is extremely friendly and helpful.
- Do apply another coat of varnish to your sculpture if you choose to house your sculpture outside when it is returned to you after the public event.

**Don’t**

- Don’t use poster paints on your sculpture.
- Don’t apply watercolour or oil paints to you sculpture.
- Don’t mix layers of paints with different bases as these will react either against each other, or with the final coat of varnish.
- Don’t use felt-tip pens, permanent pens or any other solvent-based markers such as Sharpies.
- Don’t hesitate to either test or ask us before using anything other than water-based acrylic or emulsion paint.
- Don’t add 3-D elements if you choose to house your sculpture outside when it is returned to you after the public display. They will not withstand the elements.
- Don’t let children apply the varnish – an adult must apply this in a ventilated space.
- Don’t keep your varnish in a paint pot for long. Once it has been poured out of its tin into a paint pot ready for application, the solution becomes unusable after 24-48 hours.
Creating your artwork

Please note that although it is acceptable to use watercolour paints at the design stage of this project, they are unsuitable for painting onto the sculptures.

Materials for painting

- Acrylic paints
  - All colours in the double primary system; Brilliant Red, Crimson, Cobalt Blue, Brilliant Blue, Brilliant Yellow, Yellow Ochre.
  - Black and white
- Emulsion paints
  - In a variety of colours, although it is particularly useful to have a large supply of white and black.
  - Acrylic paint combined with emulsion paint produces a very workable, fast-drying, water-based medium that can be used to great effect.

Materials for extending paints

- Sand or sawdust
- PVA glue
- Glitter

Small particles can be added to paints and glue to create light relief work or textured effects. PVA glue can be added to paints to create translucency.

CAUTION: any large-scale relief work, and papier-mâché should be avoided, as the results tend not to be hard-wearing enough to survive for long.

Other materials

- Lazertran
- Safmat
- Letraset
- Plastic objects
- Posca pens
- String, bamboo wind chimes, bark, sand, carpet, fabric, beads, solar panels, mirrors, tea...
- Collage paper/newspaper/tissue paper, etc.
- Decoupage paper

A highly effective inkjet transfer paper that separates in water and can be glued onto the sculpture. Lazertran requires varnish to hold it secure when dry.

- A self-adhesive film that can be used in your printer and stuck to the sculpture.
- Dry transfer lettering
- Buttons, clothes pegs, combs, spoons, toys, bottle tops
- Great for applying detail. These are water-based acrylic paint markers.

- Consider using materials that provide texture, movement, sound, energy, aroma.

Acrylic paint combined with emulsion paint produces a very workable, fast-drying, water-based medium that can be used to great effect.

Tools for painting

- Hogs hair Brushes
  - In a variety of sizes
- Decorators brushes
- Sponges
  - Different sizes/textures
- A range of printmaking materials
  - Leaves, string, feet/hands/fingers, vegetable stamps, fabric, feathers, masking tape, vinyl tape, stencils, etc.

Equipment for mixing paint

- Palettes, margarine tubs/yoghurt pots
- Plastic pots and cling film for storing paints
- Jars for water
- Card for mixing textured paints, i.e.
- using sand/sawdust

Cleaning materials

- Paper towels
  - Good for brush cleaning when painting, use to dry brushes after cleaning in water, in between changing colours.
- Rags
  - General spills
- Washing up liquid
- Newspapers
- Aprons/large inside-out shirts
  - Essential floor protection.
  - Keep children’s uniforms clean when painting or clearing up.

- You can also buy blank decoupage paper that can be used in printers.
A golden opportunity to take part in Bee in the City.
Section 4

National curriculum links, classroom guides, ideas and lesson plans

Celebrating magical moments and creating magical memories

By participating in this project you’ll be involving your children in something exciting and important: a real-world challenge requiring imagination, teamwork and practical commitment towards a shared community outcome. This section of the pack suggests ways to broaden and deepen your involvement – and your children’s learning – through creative cross-curricular activities.

Confident individuals, responsible citizens and successful learners

Document your project as it unfolds, so that your children and their families can enjoy looking back and reflecting on what’s happened. Not only will you have plenty of material for sharing with your community, you’ll also be evidencing your children’s learning for Ofsted - and Arts Award, if you’re taking part.

Putting creativity at the heart of your classroom activities

The following suggestions will give you ideas for activities to run alongside your Bee in the City project. Pick a favourite section or mix and match.

Art and design programmes of study

Art, craft and design embody some of the highest forms of human creativity. A high-quality education in art and design will engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art, craft and design. As pupils progress, they should be able to think critically about, and develop a more rigorous understanding of, art and design. They should develop an appreciation of how art and design both reflect and shape our history, and contribute to the culture, creativity and wealth of our nation.

The National Curriculum for art and design aims to ensure that all pupils:

- produce creative work, exploring their ideas and recording their experiences
- become proficient in drawing, painting, sculpture and other art, craft and design techniques
- evaluate and analyse creative works using the language of art, craft and design
- know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms.

Key Stage 1

Pupils should be taught:

- to use a range of materials creatively to design and make products
- to use drawing, painting and sculpture to develop and share their ideas, experiences and imagination
- to develop a wide range of art and design techniques using colour, pattern, texture, line, shape, form and space
- about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work.

Key Stage 2

Pupils should be taught:

- to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art
- to create sketch books to record their observations and use them to review and revisit ideas
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (for example, pencil, charcoal, paint, clay)
- about great artists, architects and designers in history.

Key Stage 3

Pupils should be taught:

- to develop their creativity and ideas, and increase proficiency in their execution. They should develop a critical understanding of artists, architects and designers, expressing reasoned judgements that can inform their own work
- to use a range of techniques to record their observations in sketchbooks, journals and other media as a basis for exploring their ideas
- to use a range of techniques and media, including painting to increase their proficiency in the handling of different materials
- to analyse and evaluate their own work, and that of others, in order to strengthen the visual impact or applications of their work
- about the history of art, craft, design and architecture, including periods, styles and major movements from ancient times up to the present day.

**Decorating your Bee sculpture & taking part in the Bee in the City trail**

A real-world creative challenge with a shared community outcome

**Bee an investigator**
- Finding out about bees and beekeeping
- *The Great British Bee Count*
- Investigating hexagons
- Honey taste tests
- Comparative measurements
- Hexagonal thinking

**Bee busy: host your own working bee**
- Working together on your sculpture
- Throwing a launch party
- Planting a bee-friendly garden
- Setting up a bee-inspired co-operative
- Hosting a ‘quilting bee’
- Folding origami
- Hosting a ‘spelling bee’
- Running a charity auction

**Bee creative**
- Creating a story hive
- Designing a hive
- Bee-ing numerical
- Cooking up a honey storm
- Creating a Bees trail
- Compiling a sensory map
- *The Flight of the Bumblebee* by Rimsky-Korsakov
- How the Bee Became: Creation Myths
- Editing *The Daily Buzz*
- The ‘bee-loud glade’: from a poem by WB Yeats

**Topic web 1 - cross-curricular links**
### English
- Write articles, reports and guidebooks to document and share your Bee in the City project and the sculpture trail
- Write a Ted Hughes-inspired bee creation myth or Aesop-style fable
- Hold a ‘spelling bee’
- Turn a picturebook into an Indian-inspired performance with The Honey Hunter
- Explore the idea of Arcadia with W.B. Yeats’ poem The Lake Isle of Innisfree
- Write and make mini-books to create a ‘Story Hive’

### Science
- Observe, identify, record and report bee sightings
- Close up: bees through the microscope
- How do bees fly? Flight investigations
- Taste-testing honey
- Planting trees and flowers to help bees and the environment

### History
- Research and create your own historical ‘bee-inspired’ trail through Manchester
- Beekeeping in medieval manuscripts
- The origins of the co-operative movement in Rochdale and Manchester
- Childeric I’s golden bees and the Emperor Napoleon

### Geography
- How do bees navigate? Compass directions, the sun and the Earth’s magnetic field
- What would a bee see flying above your school? Using local maps
- Beekeeping across the world – traditional vs modern industry
- The Honey Hunter and the Bay of Bengal

### Languages
- Create a foreign-language guide for your Bee in the City trail
- How do bees communicate? Body language, vibrations and the ‘waggle dance’
- Du Iz Tak? A book exploring an imaginary insect language

### Music
- Rimsky-Korsakov’s Flight of the Bumblebee
- Nuno Bettencourt’s homage on electric guitar
- Liberace’s boogie-woogie version
- A swing-jazz version in Disney’s Melody Time
- The Peanut Butter Conspiracy’s psychedelic spoof

### Art, Design and DT
- Design and decorate your Bee in the City sculpture
- Bees as symbols in Manchester and beyond
- Different shapes and materials for hives – what, why, how, which works best?
- Origami hexagons – what can you design and build?
- Grandma Moses and the ‘quilting bee’: design and sew a quilt
- Wolfgang Buttress’s interactive The Hive sculpture at Kew
- Art History: Childeric I’s golden bees and Napoleon’s court; medieval manuscripts about beekeeping; folk-art carved hives

### Computing
- Design and produce a booklet to accompany your Bee in the City trail
- Produce promotional materials and a souvenir booklet for a school exhibition documenting the design and creation of your Bee sculpture
- Collate your school’s bee sightings for the Great British Bee Count
- Working together on a bee-inspired enterprise
- Hold a Bee in the City celebration for your community
- Support a local community beekeeping initiative
- Hexagonal learning to support in-depth exploration of a challenging topic

### PSHE and Citizenship
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### Maths
- Hexagonal 2-D and 3-D geometry
- Pattern making – hexagonal tessellations and number sequences
- Statistics and number-crunching using data from The Great British Bee Count
- Bees understand the concept of zero – investigating zero and its use

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Participating in Bee in the City

Below, you'll find suggestions for cross-curricular classroom activities inspired by your Bee in the City project. They're organised into three sections.

- Bee an investigator - building confident and capable learners
- Bee creative - putting creativity at the heart of your classroom (including Story Hive)
- Bee busy - working together on a real-world enterprise - just like bees!

There's a cross-curricular topic web to accompany these ideas, plus a web for those who prefer to plan using subject headings. Section 9 contains further information and links to support your work.

Bee an investigator

Building confident and capable independent learners

Designing and decorating your Bee will give children an opportunity to research and deliver on a project with real-world outcomes. Being able to share their work with family, friends and the wider community will build confidence, commitment and enthusiasm. Read on for some starting points for independent research together with ideas for group investigations. Try giving these questions a real-world context too, by linking them to a creative project such as the ones suggested in this pack.

Bee creative

Putting creativity at the heart of your classroom

With its opportunity to research, design and decorate a bee sculpture, your Bee in the City project already has creativity at its heart. Build on this by taking a creative approach right across the curriculum. The suggestions in this pack will give you ideas for activities to run alongside your Bee in the City sculpture project.

Bee busy

Working together on a real world enterprise - just like bees!

By working together on your Bee in the City sculpture, you’re already involving your children in something exciting and important: a real-world art and design challenge requiring imagination, teamwork and practical commitment towards a shared community outcome. This section of the pack suggests ways to broaden and deepen your involvement – and your children’s learning.

Confident individuals, responsible citizens and successful learners

Document your project as it unfolds, so that your children and their families can enjoy looking back and reflecting on what’s happened. Not only will you have plenty of material for sharing with your community, you’ll also be evidencing your children’s learning for Ofsted - and Arts Award, if you’re taking part.

Bee an investigator

Finding out about bees can take you in lots of fascinating directions. Here are some suggestions for topics to explore. Why not let your discoveries inspire the decoration of your sculpture, or kickstart the creative projects suggested later in this pack?

Hive organisation - Different types of bee (e.g. the differences between worker bees and bumble bees) - Collecting pollen and making honey
- The anatomy of a bee - How bees fly - Why bee numbers are declining
- Traditional methods of beekeeping around the world - The Honeyguide bird - Solitary bees - Bees on buildings and street furniture in Manchester
- How bees communicate - Hexagons - Beliefs about bees - Bees in stories
- Bees as symbols - The cooperative movement in Rochdale and Manchester - The Hive interactive sculpture by Wolfgang Buttress - Honey and health
- The custom of Telling the Bees - Queen bees and reproduction - Swarm behaviour - Bees in art - Bees can count to 4 and understand zero - Carved folk-art hives around the world - Bees as pollinators - Winnie the Pooh and the bees - The Waggle Dance - How bees navigate - Napoleon and the golden bees of Childeric I - Climbing trees for honeycombs - Bees in music - Cooking with honey - Beeswax and its uses - Colony Collapse Disorder - Beatrix Potter’s Babbity Bumble - Different ways of building hives - Industrial production of honey - A world without bees?

There are lots of ways to broaden and deepen your research. Here are some ideas for investigations to get you started.

The Great British Bee Count
https://friendsoftheearth.uk/bee-count

The website includes results from the 2017 count, an interactive map showing locations and types of bees reported, a bee identification guide, information about the damage caused by habitat loss and neonicotinoids, together with suggestions on how to help bees in your neighbourhood.
Investigating hexagonal patterns, constructions and number sequences

Bees build their hives using hexagonal prism-shaped cells, which allow the largest amount of honey to be stored and are the most efficient way for bees to use scarce resources such as wax, as well as giving honeycomb its strength. There are lots of ways to investigate hexagons and the physical and numerical patterns formed.

- Create tessellating patterns with hexagonal tiles or origami
- Challenge pupils to construct 3-D solids with hexagonal faces (there’s no 3-D solid with entirely hexagonal faces, so children will need to build hexagonal prisms, or use squares to fill the gaps)
- Use regular hexagon loops to generate number sequences
  - https://nrich.maths.org/11206
- Investigate triangular hexagons
  - https://nrich.maths.org/5035
- Create and solve hexagon mazes
  - https://www.tes.com/teaching-resource/19-hexagons-6023240
- Make a flexagon
  - https://m.wikihow.com/Make-a-Flexagon

Honey tasting

Honey is made from lots of different flowering plants, so there are many varieties that taste and look quite different. Work with children to design an investigation to see how well they can distinguish between different types of honey, or to discover which are most popular. You’ll need to support children in making their investigation fair (their results need to be accurate and replicable – blindfolds should work, and be worn in the same way each time, for example, and investigators must make sure they don’t give any hints!). Be careful to test for one outcome (rather than looking for answers to too many questions at once) and help children design robust ways to record their results. Create tables, graphs and infographics alongside reports about what you’ve done, together with photographs of the flowers and large-scale maps showing where each type of honey comes from.

Caution: some children suffer from honey allergies. Check before allowing children to take part.

Sizing things up

Compared to people, bees are very small - but how small, exactly? Collect objects that are the same length as a bee, or that weigh the same. If you could stack bees end-to-end, how many would it take to measure the same as a single child? How many bees would it take to weigh the same? How does the size of a bee compare to other insects?

Investigate different materials and textures using magnifiers and microscopes. Draw careful pictures of what you can see and label them. What do bees look like close up? Draw diagrams to show the body parts of bees, then use books and web resources to look at photos of bees taken with powerful microscopes. Can you still identify what you’re looking at? What else can you see?


Hexagonal thinking

Linking facts and ideas using hexagonal tiles can help children order their thinking. As a class, use the technique to investigate a complex idea or organise information. See Section 9 for links.

Bee creative

Putting creativity at the heart of your classroom

See Section 9 for additional resources and links.

Design your own bee trail

Follow Manchester’s Bee in the City trail and record your expedition by drawing annotated picture maps. Create a display in your school, complete with photographs and reports about what you’ve seen and the experiences you’ve had.

Why not design a trail of your own? It could draw attention to the bees which decorate Manchester’s buildings and street furniture, or follow the story-journey of an imaginary bee as it explores the flowers, gardens and open spaces in your local neighbourhood. You could even give your trail a twist by turning it into a bee-themed treasure hunt! Whatever you choose, there’ll be plenty of writing opportunities - children can make leaflets and guidebooks, as well as documenting their involvement, and create displays to share their experiences with others.

Bee numerical – inventing bee puzzles

Working in pairs or small groups, use bee-related facts and figures to devise some fiendish puzzles or maths problems, and challenge other groups to solve them. Choose your favourites and publish them in a book for other classes and your community to enjoy.

Rules: it must be possible to solve the problems - and their creators must have worked out the correct answers before asking others to solve them!

Design a hive

Find out as much as you can about bee hives. Why do bees need them, and how does a hive work? What are bee hives made from, and why? How many different designs can you find throughout history and in other parts of the world today? And what do honeycombs look like in the wild?

At Kew Gardens is a sculpture by Wolfgang Buttress called The Hive. Seventeen metres high and made from 170,000 aluminium parts, it’s an immersive sound and visual experience triggered by bee activity in a local hive. It was inspired by scientific research into the health of honey bees.

Use the links in Section 9 to find out more about Buttress’s Hive. Would bees recognise it as somewhere to live? Why not? What’s missing?

Challenge children to design (and maybe even build?) a hive of their own. This could be an artistic interpretation inspired by Buttress, a practical solution to the needs of real bees - or a fantasy hive for colonisation by imaginary ‘super bees’!

Display your hives, together with the results of your bee hive research.
Cooking up a honey storm

The gods in Ancient Greece ate ambrosia on Mount Olympus. Ambrosia is likely to have been honey – and honey has always been a key ingredient in many cultures throughout the centuries. Collect recipes using honey, and have a go at making and tasting some of them. What ingredients are used? Can you invent new dishes using honey? What do they taste like? Compile a cookery book and invite others to test your recipes!

Creating a sensory map

We don’t know exactly how bees navigate, but it’s likely that they use the earth’s magnetic field and polarisation patterns in the sky – senses we don’t share. Talk to your class about how they know where they are, and how they navigate their way home – which senses are they using? What kind of information?

Explore a new environment - such as a garden, woodland or park – using all your senses. How do different areas smell and sound? Use blindfold games to explore your sense of touch, and encourage children to notice colours, patterns and details in the environment, as well as overall impressions. Can you taste anything? What do you notice about the wind and weather; the position of the sun and the level of natural light?

Record your impressions on sketchmaps, trying to capture as much information as you can, including compass directions. Back in school, take imaginary walks using your maps - what do they help you remember that you might otherwise have forgotten? Discuss your maps, sharing memories and information. Use them to help you write about the place you visited.

What do you think a bee would see if it flew over your neighbourhood or school? Use the idea of a bee’s eye view to explore local maps and mapping.

Flying like a bumble bee

The composer Rimsky-Korsakov wrote The Flight of the Bumble bee in 1899, and it has been popular ever since. Due to its fast tempo, it’s very difficult to play, but soloists have recorded versions of it on lots of different instruments, which makes it a great focus for study in the classroom – see Section 9 for further details, including links to performances and pieces inspired by Rimsky-Korsakov.

The Flight of the Bumble bee makes an exciting starting point for responsive and imaginative work. What can you hear in the music? How does it make you feel? Why do you think it’s called The Flight of the Bumble bee? In a large, clear space, move in response to what you hear. Showback and discuss. Can you build on your movements to create a physical performance or dance? Explore the creation of ‘buzzing noises’ using voices, percussion and other instruments, together with found objects such as combs and tissue paper. How can you make your buzzing more interesting? Think about tempo, pitch and rhythm, and how to coordinate the noises you’re making. Do you need a conductor? Work together to create a piece of buzzing bee music to perform.

Collect some really good words and phrases to describe Rimsky Korsakov’s music – and your own! Then write about performing it or listening to it, making your descriptions as vivid as you can.

You’ll find a KS1 dance lesson plan inspired by The Flight of the Bumble bee at tes.com: https://www.tes.com/teaching-resource/minibeasts-busy-bee-a-dance-lesson-for-year-1-11265600

Bee busy

Working together on a ‘real world’ enterprise - just like the bees

Finding ways to share what you’re doing with your local community will have big benefits for your children, as well as helping your school evidence its achievements for Ofsted and Arts Award.

Many people in your neighbourhood will have heard about Bee in the City and know you’re involved, but others won’t. What could your children do to raise awareness and interest? And if local families decide to follow the Bee in the City trail, what could you do for them or give them to make their experience richer and better?

Put on an event or presentation? Design some posters? Write an article for the local press, website or blog? Create a leaflet or audio guide to the trail? Write stories for people to read while they’re on the trail? Make a sensory pack for a nursery or SEN group, to be explored alongside one of the sculptures? Lead a guided tour? Interview people to discover what they think about the trail and compile a report?

And when it’s all over, what will you do to share your experiences and celebrate?

Hold a party? Put on an exhibition about bees and your part in the project? Take your Bee in the City sculpture on a local tour? Make a film? Write a book?

Host your own ‘working bee’

People, like bees, are socialable - so when there’s work to be done, it makes sense to get together to do it!

The pioneers of America called these gatherings ‘bees’. Quilts were made at ‘quilting bees’ and corn was husked at a ‘husking bee’. Below, you’ll find some ideas for working bees to host alongside your Bee in the City project.

Host a ‘sculpture bee’ (and throw a launch party!)

You may already be involving lots of children - and possibly your local community - in designing and decorating your Bee sculpture. If not, consider holding an event to widen participation.

You could ask everyone to draw flowers to create a mural backdrop for your sculpture in school, for example, then photograph your Bee in pride of place before it goes off on its travels - or hold workshops for everyone to model their own mini-bees from clay or plastciine, and see how many worker bees you can add to your collective hive.

And why not throw your Bee a launch party when it’s ready? A special celebration is a great way to involve children in planning and running something that excites them and through which they can develop important skills.

Plant a bee-friendly garden

Bees need greater access to the right kind of flowers and plants – particularly in the middle of a city like Manchester. If you’d like to get together and create a communal garden (or even window box) Section 9 will provide you with information to get you started.

Set up your own co-operative

The idea that workers could source and sell products needed by their families was born in Rochdale and Manchester during the Industrial Revolution, and had a profound effect on trade and health. The co-operative movement adopted worker bees as their symbol because they’re industrious, look after each other and work together for the common good.

Talk about the history and ethos of co-operative trading. What are the benefits? What might be challenging about running a co-op? How could you do it? Who could help?
Work with your children to set up a bee-themed cooperative enterprise in school. This could be focused on sourcing and selling something everybody needs and wants, or something your children can produce or supply. For example:

- sourcing and selling ‘Bee healthy’ break-time fruit (without bees, it couldn’t grow!)
- sourcing a bulk supply of wild-flower seeds and repackaging them in smaller quantities
- writing, producing and selling a booklet of bee-themed stories or puzzles
- sourcing and selling local honey
- planting recycled containers with bee-friendly plants
- providing bee-themed story-reading services to younger classes.

The skills children acquire through working together on an enterprise project can be profound, and your co-op experience will give you a springboard for all sorts of real-world learning and application. Remember that actual money doesn’t have to be involved – you could use a token system instead, redeemable against agreed rewards. See Section 9 for information and resources.

Host an ‘Origami Bee’

Origami makes a great focus for a communal ‘making session’. Why not fold hexagons to create a tessellating wall display, or a large free-hanging mobile? If you start with paper of different textures and patterns linked by a colour theme, the results will be especially striking.

You can also make origami hexagonal letterfolds - use for a letter or piece of writing (a poem maybe?) and send in the post. See Section 9 for links for other hexagonal folds.

Hold a ‘Quilting Bee’

Traditional quilts use hexagonal shapes cut from off-cuts of fabric, but you can use squares instead. Enlist help - there are sure to be quilters and craftspeople in your community who’d love to get involved – and if you can document the process to create a display, you’ll capture the excitement for a wider audience.

The painting The Quilting Bee by Grandma Moses makes a good starting point for this work: check out https://www.wikiart.org/en/grandma-moses/the-quilting-bee

Hold a ‘Spelling Bee’

Another American favourite, the Scripps National ‘Spelling Bee’ dates back to 1925 and is hotly contested by children and young people across the US every year. There are numerous other spelling competitions, too - find out more online to help you create your own class, school or community spelling bee: http://spellingbee.com/about-the-bee or see Section 9.

Hold an auction in aid of charity

The Bee in the City artists’ bees will be auctioned to raise money for The Lord Mayor of Manchester’s charity – We Love MCR Charity at welovemcrcharity.org

Researching, planning and executing every stage of a successful event such as an auction is a great way to develop a range of skills including literacy, numeracy, public speaking, research, planning, people management and leadership. Why not run a small auction in school in aid of a charity of your choice or better still, for We Love MCR Charity?

Bee-themed picture books

Taking inspiration from the Take One Book project, this section will present a framework and examples of wonderful picture books, that we hope will inspire bee-related learning and creative engagement right across the curriculum – and the decoration of your Wild in Art sculpture.

- These three picture books are bursting with bee-related inspiration!
- The titles have been chosen because they’re a pleasure to read and share with children and offer challenging and engaging opportunities for creative cross-curricular work.
- Really good picture books like these make a great project focus and can be particularly exciting and productive when shared with older children. If you’re looking for text-based fiction or non-fiction, you’ll find suggestions in Section 9 along with a wider choice of picture books.

- Nature’s Tiny Miracle: Bee by Britta Teckentrup
- Bee-&–Me by Alison Jay
- The Honey Hunter by Karthika Nair and Joëlle Jolivet

The Bee in the City project provides brilliant opportunities to promote reading for pleasure and support the Read Manchester campaign from Manchester City Council and the National Literacy Trust.

Launched in 2016, Read Manchester raises awareness of the benefits of reading and helps to raise literacy levels. Last summer, schools and community groups decorated 56 BookBenches in partnership with Wild in Art, which were displayed across the city.

As part of Read Manchester, the Bee a Reader initiative will use the buzz of the bee sculptures to encourage the whole city to spend 10 minutes reading or sharing stories every day. There are lots of ways to be a reader: you can pick up a book at your local library, children can take part in the Summer Reading Challenge and there are lots of reading-focused events in Manchester for all ages.

When the Bee in the City trail launches, look out for fun reading activities for children and families, inspired by the bees. For now, here are some literacy-themed ideas you could put into practice during the decoration of your Bee sculpture!
In this picture book a bee is foraging for nectar. Back at the hive, she spreads the news about the flowers she’s discovered, and off go all the other bees to find them. Told in verse, the story evokes drowsy summer days and is illustrated with lovely spreads showing lots of different plants and wildlife. Ideal for introducing the bee’s role as pollinator, the hexagonal cutaways invite exploration of shapes and tessellation, alongside learning about bees and hives. Why not have a go at printing papers with lots of different colours and textures, then cut petals to create flower collages in the style of Britta Teckentrup? The collages in the style of Britta Teckentrup? The illustrations are great for inspiring large-scale collaborative artworks of flower meadows, too. You could make a bee-expedition to your local park to spot plants and flowers that bees like – as well as planting some of your own!

This wordless picture book tells the story of a lonely girl who revives an exhausted bee with sugar water and gains a friend. Although rooted in reality – bees do like to gather nectar and need plenty of flowers to sustain them – the story takes an imaginative twist, as bee and girl forge a sweetly surreal friendship involving bike rides, picnics, and a quest to bring flowers to the heart of the city. With a postscript encouraging children to care for bees and flowers, use this book to inspire the planting of bee-friendly window boxes and gardens, as well as a stimulus for drama, storytelling and art. What would it be like to ride on a bee? Use maps and expeditions to understand your local neighbourhood, then use to inform imaginative writing and artwork about what you and your bee observe as you fly above it.

Links well with: Belonging by Jeannie Baker (Walker) – another wordless picture book showing people working together to transform their city neighbourhood from concrete jungle to lush, green oasis – and The Boy Who Lost His Bumble by Trudi Esberger (Child’s Play).

Shonu lives in the Sundarbans, an area of forest and mangroves that lies between Bangladesh and India in the Bay of Bengal. Shonu’s father is a honey collector, and Shonu knows he mustn’t upset Bonbibi, the Guardian Deity of the Sundarbans (or indeed, the terrifying Demon King) by taking honey at the wrong time of year. But when cyclones and droughts hit his village, Shonu is so hungry that he can’t resist. The Demon King appears in the form of a Tiger and is about to eat Shonu when Bonbibi steps in. If Shonu will agree to spend the summer as a hibiscus tree, supplying the bees with nectar to repay his debt, the Demon King will spare him.

Brightly-coloured traditional Indian-style artwork by a French illustrator adorns this large-scale picture book, which started life as a performance rather than a written text – a heritage that’s apparent in the book’s rich language and the immediacy of its story, which is packed with information about the mythology and customs of a traditional way of life. But this engrossing and imaginative book also has its feet firmly in the here-and-now, with strong environmental themes and clear depictions of the wonders of the natural world. It also has the depth and breadth to interest older readers as well as young ones.

As well as creating cross-cultural links for your Bee in the City project, The Honey Hunter offers a wealth of cross-curricular ideas for extending it. You could:

- research the natural history of the mangrove forests of the Sundarbans, and the impact of deforestation and climate change
- learn about the area’s mythology and traditional ways of living (instructions for making ghee and kheer are given in the book!)
- take elements such as the transformation of Shonu from boy to tree, the work of the bees deep within the forest or the ferociously protective actions of the Demon King and explore through drama and creative writing
- try printing inspired by Jolivet’s illustrations and traditional Indian art
- invent your own stories for the bees to sing to Shonu
- create a performance of your own, complete with brightly-coloured masks and costumes.

Other literacy-themed activities

How the Bee Became: Creation Myths

- “Long ago when the world was brand new, before animals or birds, the sun rose into the sky and brought the first day. The flowers jumped up and stared round astonished. Then from every side, from under leaves and from behind rocks, creatures began to appear. In those days the colours were much better than they are now, much brighter. And the air sparkled because it had never been used.”
- In How the Whale Became and Other Stories, poet Ted Hughes tells how eleven different creatures came to exist – including the bee, who was made from demon-tears and trickeries and was forced to cheer himself with nectar and “everything that is sweet and bright and happy…”.
- Take a closer look at these stories. What kind of language and imagery does Hughes use? How does he tell each tale? Where do you think his ideas came from? What ideas can you come up with for similar stories?
- Have a go at modelling your own invented creatures from clay and other materials. What kind of creatures have you produced? What will you call them? How will they behave, and why? Are they related to any existing creatures? Draw pictures of your creature and write an informative entry for a natural history book. Can you write a Hughes-style creation myth for your creature?
Exploring your own ‘bee-loud glade…’

• Arcadia is an idea rather than a place - an unspoiled haven where people can live in total harmony with nature. First dreamed about and named in Ancient Greece, it has inspired many writers, artists and thinkers. Talk to your class about the idea of an ‘ideal place’. What do people need to be healthy and happy? Are class about the idea of an ‘ideal place’. What does Innisfree? How does his vision of an ideal place work? Is his glade an unspoiled haven where people can live in total harmony with nature? First dreamed about and named in Ancient Greece, it has inspired many writers, artists and thinkers. Talk to your class about the idea of an ‘ideal place’.

“A will arise now, and go to Innisfree
And a small cabin build there, of clay and wattles made.
Nine beans rows will I have there, a hive for the honey-bee
And live alone in the bee-loud glade.”

• Do what you think Yeats misses about Ireland, and how does he want to live on Innisfree? How does his vision of an ideal place compare to your children’s? Why might Yeats be thinking specially about bees? What might they represent to him? And why would his glade need bees? Talk about the language and imagery used in this poem.

Close your eyes and imagine the bee-loud glade. What does it look like/sound like/smell like/feel like? Ask children to create the glade as a soundscape, first by exploring the different noises they might hear there (wind, bees and other insects, rustling leaves…) and then by choosing their favourite noise and adding it to a communal ‘orchestra’. Noises can be created by voice or other means (instruments, found objects) and the aim is to respond collectively to a conductor, who controls the soundscape’s volume, mood and tempo.

• What would your children feature in their own Arcadia? What would it look like, sound like and smell like? Draw pictures and make mind-maps. List words and phrases to describe your own Arcadia. Can you write descriptively about the vision in your mind?

• Link this to PSHE - by exploring relaxation techniques including visualisation. Talk about other techniques for dealing with stress and worries. We can’t escape to Arcadia, so how can we help each other when things are tough? And how can we work together to make the world we share a better place?

Creative writing, bookmaking and an eye-catching interactive display

• If you’d like to use a literacy theme to inspire and link every aspect of your Bee in the City project, here’s an idea with plenty of room for individual creativity and a really engaging outcome for you to share. It could also inspire the decoration of your Bee in the City sculpture!

• Show children the painting Telling the Bees by Charles Napier Hemy (1897) https://en.wikipedia.org/wiki/Telling_the_bees#/media/File:Charles_Napier_Hemy-Telling_the_Bees.jpg What’s going on? Discuss the custom of telling the bees about births, marriages and deaths - see Section 9 for more information.

• What else do your children think that bees would like to hear about?

• This might include accounts of what’s going on in the world, reports about books they’ve enjoyed and would like to recommend, retellings of stories they already know, or stories and poems they’ve written specially for the bees.

• Generate as many ideas as you can and investigate different ways of developing them.

• Discuss as a class, then ask children to choose one idea to develop to create a mini-storybook for bees. Can they tell their stories, orally, as well as writing them down? You can record their tellings and add the audio files to your reading corner - or share with other classes.

Story Hive - oral storytelling

Editing The Daily Buzz

• The Book of Bees by Wojciech Grajkowski and Piotr Socha includes The Daily Buzz - two double spreads featuring bee-related news, comment and trivia – and there are plenty of other fascinating facts and stories throughout this large-format picture book. Why not create your own version of The Daily Buzz by collecting information, pictures, comments and stories about bees and compiling a newspaper of your own?

• If you’d like to use a literacy theme to inspire and link every aspect of your Bee in the City project, here’s an idea with plenty of room for individual creativity and a really engaging outcome for you to share. It could also inspire the decoration of your Bee in the City sculpture!

• Show children the painting Telling the Bees by Charles Napier Hemy (1897) https://en.wikipedia.org/wiki/Telling_the_bees#/media/File:Charles_Napier_Hemy-Telling_the_Bees.jpg What’s going on? Discuss the custom of telling the bees about births, marriages and deaths - see Section 9 for more information.

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• Generate as many ideas as you can and investigate different ways of developing them.

• Discuss as a class, then ask children to choose one idea to develop to create a mini-storybook for bees. Can they tell their stories, orally, as well as writing them down? You can record their tellings and add the audio files to your reading corner - or share with other classes.

• Once your stories, poems and accounts have been honed and edited, show children how to make a small handmade book (see Section 10 for resource links) and write their story in it to create a Story Hive - a miniature library for bees! What will you call your publishing imprint? Don’t forget your logo – and each book will need copyright details and an ISBN serial number, too!

• Once your library is complete, make a hive-shaped display using card and other materials. A box fitted with heavy card shelves can be given a hive-shaped appearance using a wire frame covered in papier mache or mod roc, or you could use a set of mini shelves and cut a hive-shaped piece of card or wood to frame the front.

• Why not hold a special event to launch your Story Hive, complete with a publisher’s catalogue listing every title, together with blurbs and marketing information written by your authors?

• You could invite families and your local community to hear more about Story Hive and your Bee in the City project – and if you’ve been inspired by the work of a particular author, why not invite them along, too? Children could be involved in every aspect of planning and managing the event, from writing and sending the invitations to preparing refreshments and creating a display.

• For added fun and learning for younger children, why not set up a roleplay library for bees, complete with library cards, date stamps, catalogues and a filing system? Children could take the role of librarian or borrower - and if you’re able to supply soft toys or finger puppets, borrowers can read the books aloud to their bee audiences too!
**Booklist: non-fiction**

**Bees and Wasps**
by James Maclaine and John Francis (Usborne Beginners Series)
A good source of all-round information. Usborne’s online Quicklinks service signposts material from other providers. See the home page at [www.usborne.com/quicklinks/eng/?loc=ca](https://www.usborne.com/quicklinks/eng/catalogue/catalogue.aspx?cat=1&loc=ca&area=NH&subcat=NId=6919)

**The Book of Bees**
by Wojciech Grajkowski and Piotr Socha (Thames and Hudson)
A large-format, beautifully-illustrated compendium of facts about bees from a wealth of different sources. Imaginatively interpreted and presented, this will be a favourite in school libraries and classrooms.

**Egg to Bee**
by Camilla de la Bedoyere (QEB Publishing)
Includes photographs showing the life cycle of the bee.

**Bee photographs**
by Rose-Lynn Fisher (Princeton Architectural Press)
"Bee is another kind of book altogether - a work of art celebrating science, or a work of science celebrated in art." *American Bee Journal*
A collection of fascinating and beautiful black-and-white photographs of bees taken at different magnifications, ranging from x30 to x 3000. Great for stimulating interest and discussion; also knowledge of a bee’s anatomy.

**Beekeeper’s Bible**
by Collins provides a broad range of factual information, primarily for adults - but selected extracts will be useful for older children.

**The Bee Book**
by Charlotte Milner (Dorling Kindersley)
A visual exploration of bee science and ecology, and a practical guide to transforming your outdoor spaces.

**Booklist: fiction**

**Bee: Nature’s Tiny Miracle**
by Patricia Hegarty and Britta Teckentrup (Little Tiger)
A bee searches for nectar in fields and woodlands full of flowers. Die-cut hexagonal windows allow the reader to peek from page to page and create pleasing geometrical patterns. A good choice for introducing bees and their importance. FS, KS1

**The Boy Who Lost His Bumble**
by Trudy Esberger (Child’s Play)
A boy loves watching the bumble bees that visit his garden. When they disappear, he’s so sad that he tries everything to bring them back, but nothing works, until the seasons change again... An introduction to life cycles and seasonal change, and a gentle way to explore sadness. Includes a factual spread about bumble bees and what we can do to help. FS, KS1

**Bee- &-Me**
by Alison Jay (Old Barn Books)
Wordless illustrations tell the story of a lonely girl, her bumble bee friend and their quest to transform an inner-city concrete landscape into a flowering haven for bees and other wildlife. Beautifully detailed and with plenty to engage and occupy a wide age-range. Includes a 'bee aware' page. FS, KS1, KS2

**The Honey Hunters**
by Francesca Martin (Walker)
An African bird known as a honeyguide leads a young boy on a quest for honey – but before they find it, they’re joined by lots of animals eager to share the feast. With its rhythmic, cumulative text, this book is a pleasure to read aloud with younger children and promotes interest in wild bees and other animals as well as kickstarting discussion about friendship and sharing - and how to make up after a quarrel. N, FS, Yr 1

**Winnie the Pooh**
by AA Milne (Egmont)
In which we discover Winnie the Pooh trying to steal honey from the bees... Chapter 1 includes one of Pooh’s most famous hums: *Isn’t it funny, how a bear likes honey? Buzz, buzz, buzz, I wonder why he does?* Sharing the original text will allow you to engage a wider audience than reading adaptations of this story - AA Milne’s language can be challenging for very young children but will appeal to older ones. Yr 2, KS2

**The Boy Who Lost His Bumble**
by John Francis (Usborne Beginners Series)
A fully-illustrated chapter book about the adventures of Melvin, a boy who keeps bees on the roof of his city tower block. One day, Melvin finds himself small enough to enter his own hive, where he helps the bees defeat attacks from dangerous predators and learns how to deal with the school bully in the process. Lots of interesting information presented in an appealing way to engage less-confident readers as well as the bookworms in your class. KS2

**The Honey Hunter**
by Karthika Naïr and Joëlle Jolivet (Die Gestalten Verlag)
This beautiful picturebook tells the story of Shonu, who lives on the shores of the Bay of Bengal. Illustrated in traditional Indian style and full of fascinating information about the mythology, natural history and customs of the area, this is a book that has real storytelling heft and will appeal to a wide age range, including older readers. It makes a rich starting point for creative projects and other work. Yr 2, KS2, Yr 7

**How the Bee Became from How the Whale Became and Other Stories**
by Ted Hughes (Faber)
This classic collection of stories by the celebrated poet is currently out-of-print but well worth sourcing via your library or online resale sites. Hughes’ vivid language and sharp imaginative insights add depth to his engaging storylines, which appeal to a wide age-range and are great to read aloud. Yr 2, KS2

**Du Iz Tak?**
by Carson Ellis (Walker)
A delightfully surreal picturebook about insects, told in an imaginary insect-language that works best when read aloud (and whose meaning is readily guessed by most children). A fun read in its own right, it also paves the way for thoughtful discussion and activities around life cycles, the changing seasons, differing points of view, and the nature of language. Although the bee in this story is only a minor character, *Du Iz Tak?* would make an imaginative starting point for work on bee communication and their role alongside other insects as part of the bigger environmental pattern. Yr 2, KS2, Yr 7

**Aesop’s fable: The Bear and the Bees**
[https://fablesofaesop.com/bear-bees.html](https://fablesofaesop.com/bear-bees.html)

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Section 6
Making it count

A big hello from The Lord Mayor of Manchester, Chair of Trustees of the Lord Mayor of Manchester’s Charity Appeal Trust - We Love MCR Charity.

This sculpture project is supporting the work of the We Love MCR Charity and provides a great opportunity for you as a school to join our growing band of school and community fundraising supporters.

Some of your children or their families, may have been supported by or have engaged with projects or opportunities we have funded; either personally or via friends and families, and by supporting our charity you are showing Manchester your love. By joining this learning programme and raising funds with us, your children will be helping to make a positive difference to the work we carry out - supporting the young people of Manchester to reach their full potential, and building stronger communities throughout the city.

We know you’ll have loads of brilliant fundraising ideas of your own but here are a few we’ve come up with to help you hold your own themed fundraising events:

- **An art exhibition** - capitalise on the creative vibe of this project by staging your own art exhibition. It could be themed around the sculpture or a wider brief or could highlight the health and wellbeing messages of the project. Funny or thought provoking, children’s art is always surprising and mums, dads, grandparents and friends will love to see their mini masterpieces.

- **A big scooter-thon** - perfect for the playground, a sponsored scoot, bike ride or pram push is a great way for your children to get active, have some outdoor fun and raise funds.

- **Penalty shoot-out** - how many goals can you score in five minutes? Which class will score the most? How will the teachers fare? A sponsored penalty shoot-out is easy to organise and fun for all ages. Why not wear your favourite kit and organise yourselves into teams? And it doesn’t need to be football focused – a sponsored skip-a-thon or basketball marathon make for an extra energetic fundraising extravaganza!

- **A spelling-bee** - test your pupils by holding a sponsored spell-a-thon. Task your class with learning ten, twenty or even a hundred words and ask mums and dads to sponsor them for every one they spell correctly. This works for times tables too! Or see who can read the most books in a term – with a donation for every one completed.

- **Big buzzy bake off** - most people love a bit of cake and a bake sale over lunch or at home time is one of the most popular ways to raise funds in school. You could theme your sale with themed biscuits or decorations and see how creative children, parents and staff can be! Selling tea, coffee and hot chocolate or holding a raffle will also help to boost your profits.

- **Dress down day** – wear a onesie or dress as a bee for the day and contribute a small donation for the pleasure.

Our friendly fundraising team will be happy to help you and provide any fundraising materials that you might need including sponsor forms, collection boxes and posters.

Whatever you decide to do, we know you’ll have a great time supporting our great charity. Every penny you raise will stay here in Manchester and your hard work will mean the We Love MCR Charity can continue to support communities and young people across our city.

Thank you for being part of this project and we look forward to helping you to raise funds for this amazing cause.

To register your fundraising activities or request any support please visit welovemcrcharity.org/Beeinthecity or email welovemcrcharity@manchester.gov.uk
Section 7

Working with the media

A decorated sculpture is a fun and exciting sight and it is extremely photogenic. Displaying the sculpture in the school grounds or in a public place, particularly if those people involved in its creation are alongside it, is something the media like to record.

Publicity for the art project is a good way to:
- raise each contributor’s sense of pride in the work they have put in
- inform parents of their child’s achievement
- raise awareness of the school’s or community centre’s activities
- raise awareness amongst potential funders
- raise awareness of environmental issues.

Print media

Local newspapers love reporting on young people doing something positive - by covering such stories, the newspaper is involving itself in the community it serves and raising circulation figures, because of the number of copies purchased by proud parents, relatives and friends.

You can find the local news desk telephone number in the local newspaper itself and on the website. Ideally, you should give the news desk at least two weeks’ notice, but one week before publication is usually sufficient. If a newspaper comes out on a Thursday, then the best day for a photo opportunity is the previous Friday or Monday.

When you ring, or send details via email to the news desk you will need to provide the following information:
- what the event is (photo opportunity, unveiling, auction)

Remember that, these days, photographers like ‘tight’ shots. In other words, they may prefer to have just one or two people in the photo. This can sometimes cause disappointment, if a big participatory photograph is also taken but a ‘tight’ shot is ultimately chosen. It is therefore important to manage expectations. You can usually obtain copies of the photographs. Mention this when you meet the photographer and ask how to go about acquiring copies.
**Online and social media**

We would love for you to promote your involvement in the project through online and social media. However, we would also like to retain an element of surprise when the sculptures are revealed in their trail display venues. In order to do this, we ask that you:

- please only release/post elements of your sculpture taking shape, or sections of your sculpture as 'work in progress', before the trail
- link to our website beeinthecitymcr.co.uk from your website. You could include it as a news story on your homepage
- like us on Facebook at https://www.facebook.com/beeinthecitymcr and encourage your staff/pupils parents/networks to like our page
- Follow us on Twitter @beeinthecitymcr and use the hashtag #beeinthecity
- Follow us on Instagram @beeinthecitymcr
- You can also follow Wild in Art @wildinart and @mcr_charity
- Promote the project on your social media channels (Facebook, Twitter, Instagram, LinkedIn, newsletters etc.)
- Provide regular content for our social media channels and newsletters - please let us know about any opportunities via learning@beeinthecitymcr.co.uk

**Local radio**

Contact the radio station news desk – the telephone number can be found on their website. Remember to give three key pieces of information:

- who is involved
- why it’s important (fundraising, environmental awareness, involving young people in fun and creative activities)
- what you are doing with the sculpture (creating a habitat in the school or community centre garden, fundraising and looking for sponsors, celebrating a public event such as sports day, community centre open day)
- it is also helpful to mention that the sculpture is provided by Wild in Art (www.wildinart.co.uk) who promote awareness of endangered species and environmental issues through running fun and creative projects.

**Local television**

Your area may have a local TV station, or you may have links with lunchtime or early evening local news. To secure some TV coverage, you will probably need to be able to offer an interesting footage-taking opportunity and an interviewee. This could be in the form of a vox pop with the young people or community centre attendants who were involved with the project, and an interview with a member of staff, or the artistic facilitator.

Again, remember to give the following information:

- who’s involved
- why getting involved in the Bee in the City project is important
- what you plan to do with the sculpture.

**School newsletter/bulletin**

Record the project’s progress for the school bulletin on a digital camera – you can extract a great series of photographs from your footage, and filming along the way provides an opportunity for more young people to be involved at various stages of the project’s development. Pupils may like to write a commentary or captions to accompany your footage.

Don’t forget to send images and information about your sculpture project to learning@beeinthecitymcr.co.uk so that we can display them on our website and share them through our social media platforms.
Section 8

Arts Award

All aboard for Arts Award

If your school is participating in Arts Award as part of its sculpture project, this section is for YOU!

If your school is not participating in the Arts Award journey, you need not read this section in great detail, but please give it a glance. Arts Award is a truly inspirational way of empowering, engaging and uniquely rewarding pupils - both in the classroom and, importantly, away from the classroom - with a nationally recognised qualification from Trinity College, London. Arts Award helps young people develop creative knowledge, and communication and leadership skills.

It takes a minimum of half a day to train staff, governors or parents to become Arts Award advisers. Once trained, they can start small with, for example, an after school club or a class of pupils. Once your school’s Arts Award adviser has completed an Arts Award or two they will have gained the confidence to advise larger groups and maybe even the whole school!

The Arts Award framework is flexible enough to work with the curriculum, and does not necessarily have to take up too much extra time or resources.

As a CPD opportunity, Arts Award is great, as it follows the individual rather than the institution and can be used to support, work with and moderate any group of young people in any setting.

Even if you are not completing the official Arts Award programme, or if the school decides not to put pupils forward for moderation, pupils may still wish to complete the free Wild in Art arts logs, as a memento of their creative journey on this project. You may decide to create your own certificate as a celebration of their achievement and present this to pupils in assembly.

How Arts Award fits in at school

Arts Award is designed to sit alongside normal classwork and can also be used as a core driver for arts weeks and arts/music clubs in an enhanced learning context. Supported by Ofsted, the Arts Award can be used across subjects; it actively encourages teachers to plan across the curriculum and to make the most of the arts and how they can support wider learning in schools.

There are some great examples of how Arts Award works with major arts organisations to offer bespoke Arts Award projects, such as a Shakespeare Challenge with the RSC and New Vic theatres, The BBC’s Ten Pieces, and 1st World War Arts Award with The Imperial War Museum. This is also reflected across the creative and cultural sector, where Arts Award is rapidly becoming the accredited learning offer of preference and has been embedded in the services of Libraries, Galleries, Museums and Heritage settings across the country.

The levels of Arts Award offered are encouraged by Ofsted. As part of judging the overall effectiveness of a school, inspectors will take account of how well the school promotes all pupils’ spiritual, moral, social and cultural development by providing positive experiences through planned and coherent opportunities in the curriculum and through interactions with teachers, other adults and the local community. In addition, the creative arts can also be used to help you meet Ofsted’s requirement that your school promotes and teaches ‘British values’, including mutual respect and the tolerance of those with different faiths and beliefs; democracy; rule of law and individual liberty.

Arts Award training

Arts Award training is delivered through regional bridging organisations. For details of your local provider and more information visit artsaward.org.uk

These bridging organisations are funded by Arts Council England, their purpose being to connect children and young people, and schools and communities with arts and cultural opportunities. They provide planning advice, professional development, training and networking opportunities to achieve this.

Discover and Explore

Arts Award helps young people to develop as artists and arts leaders, and seeks to inspire anyone aged 7-25 to enjoy and explore the arts. Arts Award is offered at five levels:

Discover: start your arts adventure

Explore: be inspired by the arts (accredited as an Entry Level 3 qualification)

Bronze: get involved in the arts and share your skills (accredited as a Level 1 qualification)

Silver: challenge yourself and build your creativity (accredited as a Level 2 qualification)

Gold: drive your personal development in the arts (accredited as a Level 3 qualification).

The Discover and Explore frameworks are both perfect to combine with your Wild in Art sculpture project, and are easy to run in parallel with regular classroom based activities.
Moderation and certification

Discover: for this introductory award, the adviser’s assessment is final and unless an issue is identified with a centre, Trinity College, the awarding body, does not carry out additional checks of the assessment or young people’s work.

Explore: this level is an accredited qualification at Entry Level 3 on the Qualifications and Credit Framework. The adviser’s assessment is moderated, which includes submitting a sample of young people’s work to Trinity College London.

Once advisers have the confirmed young people’s names, a 10% sample (per adviser) is chosen at random and must be submitted within two working days. Moderation will take place within four weeks after confirmation of the sample.

There are two Explore moderation options:

- Postal: submit sample arts logs and adviser assessment report forms via post (there is an additional charge of £5 per centre for the return of arts logs by recorded delivery).
- Online: submit sample arts logs and adviser assessment report forms via an online upload service, or via Artsbox (there is no additional charge when submitting logs online). To request moderation via Artsbox, quote ‘Artsbox moderation’ in the project description box on the enrolment spreadsheet.

Certificates: Trinity College London aims to issue Discover certificates within four to six weeks and Explore certificates within six to eight weeks from the point of confirming names and on receipt of payment.

Discover Arts Award

The Discover Arts Award is an Arts Award, adviser-assessed, non-moderated award with a recommended 20 hours of guided learning. It does not hold any graded qualification. It is most suitable for pupils aged 5 - 7 years, but pupils aged up to 25 years can undertake this award.

It has three parts:

- Discover - take part in the arts
- Find out - experience artists’ work
- Share - share and record your discovery

Part A is all about ‘discover’

Pupils take part in a range of art activities in order to widen their experience and understanding of the art that is all around them, and to develop an understanding that art forms can connect to all aspects of life.

Part B is all about ‘find out’

Pupils find out about artists and their work to develop their understanding of arts practice.

Part A and Part B can be carried out in any order, but we recommend that the sculpture is designed and painted after these sections have been completed, to allow the students to utilise the knowledge and inspiration gathered in these sessions.

Part C is about ‘share’

Pupils share their thoughts on the award with others - i.e. what they have enjoyed about the award and learnt during the experience. They should record this in their Arts Log e.g. through photos, drawings, notes or videos.

The ultimate sharing experience will be when the school’s sculpture is on public display. Pupils can evidence this before the end of term in many ways, but it is recommended that Part C is completed by the end of the school year to allow time for the assessment of the Discover Arts Awards.

Explore Arts Award

The Explore Arts Award is an Arts Award adviser-assessed qualification, but unlike Discover it is a moderated entry level 3 award, QCF credit value: 4 with a recommended 25 hours guided learning and 10 hours of ILH. It has four parts:

- Inspire: take part in the arts
- Explore: explore the work of artists and arts organisations
- Create: create a work of art and present your exploration
- Present: identify achievements and present your work to others.

Part A is all about ‘inspire’

Pupils take part in a range of arts activities in order to extend their experience in and understanding of the arts, and to develop practical skills. Young people should identify what inspires them about the arts activities they take part in, and record this and them taking part in their arts log.

Part B is all about ‘explore’

Pupils explore the work of artists and arts organisations through live or actual experience. They may connect through art form or location, or they may be entirely different. Young people should identify what inspires them about the arts activities they take part in and record this in their arts log.

Part C is all about ‘create’

Create a piece of artwork to demonstrate art skills. It can be any art form, e.g. dance, poem, sculpture or combination of arts forms. This can be an individual or group activity, and could be an extension of part A and B. Pupils should record the creative process in their arts log.
Part D is all about ‘present’

Pupils identify what they have achieved and enjoyed through the award and present their work to others. This could involve a one-to-one presentation, or presenting as part of a group activity, and the presentation could take many forms, such as performance, demonstration, exhibition or discussion. Pupils should record the process of making their artwork and in their arts log.

Note: as part of the wider project all participating schools will be acknowledged and their sculptures shared on the project’s website, app, trail maps and other supporting materials, ensuring maximum exposure.

Discover and Explore - Arts Award logs

Comprehensive advice will be given to staff when they are undertaking their Arts Award training on how to support students in gathering evidence and completing Arts Award logs.

Each pupil working towards Arts Award will need an Arts Award log book. Wild in Art’s Arts Award log books will help the pupils on their ‘Discover’ or ‘Explore’ Arts Award journey, by guiding them through the different steps.

Templates of the Wild in Art ‘Discover’ and ‘Explore’ Arts Award log books are available to download from the Bee in the City learning resource portal. These PDFs can be printed into booklets for each participant. Each section of the template is very plain and simple so that it can be extended, embellished and generally personalised by each pupil.

Pupils can use the log book in the same way as an activity book and collect evidence by filling in the different sections with examples of their work.

If you need to save on printing costs – these can be used as a guide: a blank text book, scrapbook or loose-leaf pages in a file will work just as well as an Arts Award log.

Section 9

Links and additional resources

Bee informed

Durling Kindersley at dkfindout.com
https://www.dkfindout.com/uk/search/bees/

Usborne’s online Quicklinks service
See their home page www.usborne.com/quicklinks/eng/?loc=ca


Friends of the Earth – The Bee Cause, The Great British Bee Count
https://friendsoftheearth.uk/bees - find out what bees need, what’s harming them and how we can help. Includes links to news items and campaigning reports
https://friendsoftheearth.uk/bee-count - includes a bee identification guide and an interactive map showing 2017’s sightings, together with information about the damage caused by habitat loss and neonicotinoids and suggestions on how to help bees in your locality. Sign up to take part in 2018’s Bee Count, or send off for your Bee Saver Kit https://friendsoftheearth.uk/bees/donate-save-britains-bees-get-your-bee-saver-kit-today

Life inside the Beehive:
A TED Talk by researcher Mat Welch about life in the hive and bee colony https://www.youtube.com/watch?v=i5_EBBkFdH4

To see bees hatching out from eggs https://www.youtube.com/watch?v=f6mJ7e5YmnE
And for the TED Talk about this film by filmmaker Anand Varma: https://www.ted.com/talks/anand_varma_a_thrilling_look_at_the_first_21_days_of_a_bee_s_life

Discover and Explore - Arts Award logs

Comprehensive advice will be given to staff when they are undertaking their Arts Award training on how to support students in gathering evidence and completing Arts Award logs.

Each pupil working towards Arts Award will need an Arts Award log book. Wild in Art’s Arts Award log books will help the pupils on their ‘Discover’ or ‘Explore’ Arts Award journey, by guiding them through the different steps.

Templates of the Wild in Art ‘Discover’ and ‘Explore’ Arts Award log books are available to download from the Bee in the City learning resource portal. These PDFs can be printed into booklets for each participant. Each section of the template is very plain and simple so that it can be extended, embellished and generally personalised by each pupil.

Pupils can use the log book in the same way as an activity book and collect evidence by filling in the different sections with examples of their work.

If you need to save on printing costs – these can be used as a guide: a blank text book, scrapbook or loose-leaf pages in a file will work just as well as an Arts Award log.
Manchester and its long association with bees

Manchester’s coat-of-arms

Manchester’s coat-of-arms was granted in 1842. At the top is a crest featuring seven worker bees flying across the globe, which symbolises the worldwide export of Manchester’s industry.

For more information, see
https://www.theguardian.com/uk-news/shortcuts/2017/may/24/peaceful-but-not-to-be-messed-with-how-the-bee-came-to-symbolise-manchester
https://www.creativetourist.com/articles/museums/manchester/manchester-history-the-bees-the-bees/

The Manchester Bees Project at http://manchesterbe.es

This website will help you discover where and why bees appear on buildings, street furniture and artworks in and around Manchester. In the words of its founder, photographer Gareth Hocking, it is “...dedicated to celebrating one of Manchester’s most enduring icons, through looking at its history and its presence as a symbol around the city centre and beyond.”

The Co-operative Society and its bee hive symbol

The origins of the Co-operative Society go back to 1844 when the Rochdale Society of Equitable Pioneers was established, but it wasn’t until 1863 that the North of England Co-operative Wholesale Industrial and Provident Society Limited was launched in Manchester. From its earliest days, the movement used a bee hive as its symbol, and as a result, images of bees and hives can be found in many urban locations.

https://en.wikipedia.org/wiki/The_Co-operative_Group
http://manchesterbe.es/index.php/2017/03/19/co-operative-society-beehives/

Urban bees in Manchester

Beekeeping is thriving in inner city Manchester – to find out what’s going on, visit http://manchesterbe.es/index.php/2017/06/09/buzzing-on-the-roofs-manchester-salfords-urban-bees/
http://manchesterbe.es/index.php/2017/05/05/city-centre-beehives-manchester-art-gallery/
Bees in art

Search on Bees in Art History via Google Images, or Bees or Bees in Art via Wikimedia Commons https://commons.wikimedia.org/wiki/Main_Page
There are also collections on Pinterest – e.g. https://www.pinterest.co.uk/danieldardanus/bees/
Manchester’s Town Hall features several worker bee-themed mosaics https://commons.wikimedia.org/wiki/Category:Bees_in_art#/media/File:Bee_mosaic_in_Manchester_Town_Hall_floor_-_geograph.org.uk_-1128600.jpg

Links to other bee-related artworks
• Giambologna’s statue of Ferdinando de Medici in Florence shows bees gathering round their queen in an allegory of monarchy. The text reads ‘one rule alone’ http://www.socialhistoryofart.com/apps/photos/photo?photoid=140735039
• An Ancient Egyptian fresco showing bees - and a sculpture of Rameses XI made from beeswax! http://marinbees.com/wp/bees-in-art
• An Ancient Greek panel showing the bee goddess Melissae http://melissae.gr/mythical-winged-goddess-melissae/
• The Hive – an interactive sculpture by Wolfgang Buttress at Kew Gardens https://www.kew.org/kew-gardens/attractions/the-hive
• Eden Project’s giant bee sculpture commons.wikimedia.org/wiki/File:Giant_Bee_Eden_Project.jpg Find out more at http://www.edenproject.com/visit/whats-here/giant-bee-sculpture
• 300 gold and enamel bees were found in the sixth-century tomb of French king, Childeric I, and were adopted as a symbol of power by the Emperor Napoleon https://en.wikipedia.org/wiki/Childeric_I
• Beatrix Potter illustrated Babbity Bumble for The Tale of Mrs Tittlemouse in 1910 https://en.wikipedia.org/wiki/The_Tale_of_Mrs._Tittlemouse
• Charles Napier Hemy’s painting Telling the Bees https://en.wikipedia.org/wiki/Telling_the_bees#/media/File:Charles_Napier_Hemy-Telling_the_Bees.jpg

Bees in music

Rimsky-Korsakov’s The Flight of the Bumblebee- and variations!
The Flight of the Bumblebee was originally a musical interlude composed in 1899 for an opera called The Tale of Tsar Shaltan (in which the Tsar’s son is transformed into a bee). It’s often performed as a stand-alone piece, although its frantic pace makes it very challenging to perform. Many soloists have recorded versions of this piece on different instruments, making it a great focus for study and inspiration.

Orchestral version https://www.youtube.com/watch?v=aYAJopwEYv8
Pianist Vladimir Horowitz https://www.youtube.com/watch?v=EgtxExac_Zfk
Pianist Lang Lang – includes close up of his hands https://www.youtube.com/watch?v=ptRsnhiP1dc
7-year-old Tsung Tsung plays piano https://www.cmuse.org/tsung-tsung-plays-flight-of-the-bumblebee/

A timed record-breaking performance by cellist Sara Sant’Ambrogio https://www.youtube.com/watch?v=s9zoU9toYOE

Harry James on trumpet in a clip from the 1943 MGM musical, Best Foot Forward https://www.youtube.com/watch?v=jx57lIr8x_4
Liberace playing a boogie-woogie piano version from his 1950s TV show https://www.youtube.com/watch?v=TLIj2yakd-k

Freddy Martin’s swing-jazz version of Bumble Boogie featuring Jack Fina on the piano and animated by Walt Disney for the 1948 film Melody Time https://www.youtube.com/watch?v=72MXrQXtIWC

The piece has also inspired other musicians, including virtuoso guitarist Nuno Bettencourt in Flight of the Wounded Bumblebee https://www.youtube.com/watch?v=mJvG1t79CPc and heavy rock band Manowar’s Sting of the Bumblebee, where the melody is played on bass guitar (note that the accompanying video is of a wartime aerial battle!) https://www.youtube.com/watch?v=YBd4uXKDzRE&list=RDYBd4uXKDzRE&tl=67

In 1966 a band called ‘The Peanut Butter Conspiracy’ recorded a spoof track called The Flight of the Psychedelic Bumble Bee https://open.spotify.com/track/1gPYJgTgeQs5t9wcyl27oy
Flying round and round, making a groovy sound, it’s the flight of the psychedelic bumble bee
Swooping way up high, flowers up in the sky, a burst of colour as far as the eye could see

You’ll find a KS1 dance lesson plan inspired by The Flight of the Bumble Bee at tes.com https://www.tes.com/teaching-resource/minibeasts-busy-bee-a-dance-lesson-for-year-1-11265600
Crafty hexagons

Origami hexagons - use to fold a letter or piece of writing (a poem maybe) and send it in the post:
https://www.thespruce.com/make-a-origami-hexagonal-letterfold-using-a4-paper-4120589

Or create hexagonal shapes as a basis for other models: https://www.origami-resource-center.com/hexagon-from-a-square.html

You can also find instructions for creating hexagonal gift boxes and other hexagonal shapes online:
https://www.youtube.com/watch?v=XPiQxWLpWuw
https://www.youtube.com/watch?v=Sj1PgRtbWrc

For instructions for making a Flexagon see:
https://m.wikihow.com/Make-a-Flexagon

Busy-bee co-operatives and school-based enterprise

The not-for-profit group Enabling Enterprise is a useful place to start. For information and inspiration see: http://enablingenterprise.org or their primary school brochure at:

The Soil Association provides information about setting up and running a food co-op in school: www.se-ed.co.uk/sites/default/files/resources/Setting%20up%20a%20food%20co-op%20in%20schools.pdf

Downloadable bee puzzles, activities and maths investigations

Magic hexagon maths puzzles

Bees and hexagons
https://www.youtube.com/watch?v=QEzlsjAqADA

Hexagonator online maths game
https://www.mathplayground.com/logic_hexagonator.html

Hexagonal thinking

Hexagonal thinking is a way of ordering research and critical thinking by creating links between ideas, information and arguments. It is helpful when problems are complex, and can be used in PSHE and Citizenship to encourage discussion and deepen engagement. It's also popular for revision purposes.

For insights, see http://mrsfintelmanteaches.global2.vic.edu.au/2016/10/06/hexagonal-thinking/

Bee busy and creative

Spelling bees

http://spellingbee.com/about-the-bee
You can take a preliminary test here http://spellingbee.com/test-take

There are lots of clips of contests to check out online, including

Quilting bees

http://worldquilts.quiltstudy.org/americanstory/creativity/quiltingbee

For photos of people taking part in quilting bees:
https://www.pinterest.co.uk/pin/402790760414953591/
and https://www.pinterest.co.uk/pin/194780752616915555/

http://the-history-girls.blogspot.co.uk/2016/02/go-tell-bees-by-karen-maitland.html features a variety of artwork

Blogs discussing bees and beekeeping in art

http://the-history-girls.blogspot.co.uk/2016/02/go-tell-bees-by-karen-maitland.html features a variety of artwork

Hexagonal thinking

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For photos of people taking part in quilting bees:
https://www.pinterest.co.uk/pin/402790760414953591/
and https://www.pinterest.co.uk/pin/194780752616915555/
Story Hive resources

Telling the Bees

See https://en.wikipedia.org/wiki/Telling_the_bees
Telling the Bees: a painting by Charles Napier Hemy (1897) en.wikipedia.org/wiki/Telling_the_bees#/media/File:Charles_Napier_Hemy-Telling_the_Bees.jpg

Making handmade books

DIY saddlestitch bookbinding tutorial
https://www.youtube.com/watch?v=aWHkY5j0oqM
Mini bound origami book
https://www.youtube.com/watch?v=LAyJHTBDxw
http://www.makingbooks.com/freeprojects.shtml

National literacy organisations for inspiration, information and support

Seven Stories, the National Centre for Children’s Books
https://www.sevenstories.org.uk/
National Literacy Trust www.literacytrust.org.uk
Centre for Literacy in Primary Education (CLPE)
https://www.clpe.org.uk/ - includes the National Poetry Centre for Primary Schools https://www.clpe.org.uk/poetryline
Booktrust https://www.booktrust.org.uk
Federation of Children’s Book Groups http://www.fcbg.org.uk

Your Bee sculpture and/or Story Hive could be used to promote special events

The Summer Reading Challenge:
http://summerreadingchallenge.org.uk/
World Book Day http://worldbookday.com/
Roald Dahl Day
http://www.roalddahl.com/create-and-learn/join-in/roald-dahlday
National Children’s Book Start Week
Read for My School
Waterstone’s Children’s Laureate http://www.childrenslaureate.org.uk
National Share-a-Story Month
http://www.fcbg.org.uk/national-share-a-story-month/

More information about the books featured in the 'Bee a Reader' section

http://booksforkeeps.co.uk/issue/217/childrens-books/articles/an-interview-with-britta-teckentrup
https://in.ambafrance.org/The-Honey-Hunter-by-Karthika-Nair
http://www.thedhughessociety.org/dreamfighter/
http://summerreadingchallenge.org.uk/
World Book Day http://worldbookday.com/
National Children's Book Start Week
Read for My School
Waterstone’s Children’s Laureate http://www.childrenslaureate.org.uk
National Share-a-Story Month
http://www.fcbg.org.uk/national-share-a-story-month/
Section 10

Bee a Historian

Get hands-on with history with Archives+ and the Manchester bee-handling resource. During this free workshop delivered to schools in the splendid surroundings of Central Library, your class will explore some of the history behind Manchester’s worker bee. Using a special bee box shaped like a beehive, specialist staff will use resources and objects to help your class explore the origins of Manchester’s symbols and coat of arms.

Manchester’s coat of arms was granted to the city in 1842 and is a classic heraldic design. It shows a shield of red and gold, bearing the image of a ship, supported by an antelope and a lion and crowned by a globe covered in bees. Each part of the coat of arms represents an aspect of the city’s past and present.

These workshops are suitable for Key Stages 1-3

For info:

These sessions are delivered by Angela Rawcliffe, the Learning Officer from Archives+. They are offered free to schools across Greater Manchester.

Get exclusive access to archive material and choose from a range of activities:

- **Coat of arms activity** – look at Manchester’s coat of arms. What shapes, symbols and colours are used? What would your Manchester coat of arms look like? Design one.

- **Archive activity** – how does each of the archive items relate to the bee? What does each item show? What is the significance of the bee?

- **Manchester Bee in the City trail** – pick up a map and find the Bees around Manchester city centre.

Each session will be facilitated by a member of staff and will last approximately 2 hours. There are also free downloadable resources on the Archives+ website http://www.archivesplus.org/%20schools/

What’s in the box?

- Bee map
- History of the bee timeline
- Bee-related archive material including: Beware! A warning to Suffragists by Cicely Hamilton
  - Information about the Industrial Revolution and the Women’s Suffrage Movement
- Information about the Manchester crest.

More information

To book a visit to Central Library or for more information about what we offer, please contact: centrallibraryclassvisits@manchester.gov.uk
How’s life for honey bees and other species?

Mention ‘bees’ and what generally comes to mind are honey bees, hives or honey, but amazingly, there are over 20,000 bee species found across the world, and of these, only seven are true honey bees. Bumble bee species easily out number honey bees, with over 250 species found around the globe, and there are even more solitary bees - thousands of species!

Bees have been around for more than 30 million years. Evidence suggests humans and honey bees started a relationship around 9,000 years ago! Over millennia this relationship has led to the current day situation where honey bees are mainly ‘farmed’ for their honey and wax.

Bees are an amazing and diverse group of insects and we all depend on them for a large proportion of our food. Here are some interesting facts to ponder over and use to enthuse your groups.

**Honey bees**

- Honey bees are the only insect in the world that makes food (honey) that people eat.
- A colony of bees can contain up to 80,000 individuals, but there is only ever one queen bee.
- The queen bee runs the hive and is responsible for laying all of the eggs. If the queen dies, the workers feed selected young larva with ‘royal jelly’ which results in the selected larva developing into a fertile queen.
- It takes over 1,000 bees to make 1 kg of honey. This involves them visiting over 4 million flowers in the process.

**Bumble bees:**

- Six of our bumble bee species are endangered, and one has recently become extinct in the UK.
- Bumble bees have either short or long tongues. Those with long tongues can be over a centimetre in length allowing them to reach deep inside flowers for food (nectar) - perfect if foraging at foxgloves.
- Bumble bees produce a buzzing sound as a result of vibration of muscles used for flying. They can flap their wings 200 times per second.
- Bumble bees only make a small amount of honey, which they eat themselves.
- We have six species of cuckoo bumble bee in the UK. They hijack nests in the same way that the birds (cuckoos) do. Cuckoo bumble bees take over the nests of other bee species, where they lay their eggs. As they don’t need to forage for pollen they do not have pollen baskets on their legs.

**Solitary bees:**

- The majority of bees in the world are solitary bees. We have at least 251 species of solitary bees in the UK.
- As their name suggests, they do not live in colonies, nor do they produce honey or have a queen. Where conditions are right they can nest in huge aggregations and different species can be found nesting together in the same area.
- Solitary bees do not have pollen baskets for carrying pollen but are very hairy and many have pollen brushes on their legs or on the underside of their abdomens. When they visit a flower they lose a lot of pollen and are therefore much better at pollinating flowers than honey bees. A single, solitary bee pollinating flowers is the equivalent of over 100 worker honey bees.
- Solitary bees include mining bees that nest in the ground; and mason and leafcutter bees that nest in holes in wood or walls.
- Leafcutter bees cut up leaves and then glue them together with saliva to make the ‘cells’ in which their larvae live.
How can we help our bees?

Everyone can help bees by putting more bee-friendly flowers back into their local environment.

Urban areas in the UK contain high numbers of bees and other pollinators, with allotments and gardens being particularly important. Planting more suitable pollen and nectar-rich flowers will provide more food for pollinators. Native wildflower species are particularly useful. If planting ornamental flowers, avoid more 'complex' flower types, which make it difficult for bees and other pollinators to access nectar and pollen supplies.

A football pitch full of flowering dandelions can produce over 1 kg of nectar per day, providing valuable food for wild bees and honey bees. So less intensive mowing of parks and lawns can result in more flowers and a greater numbers of insect visits.

Bees and food production

Bees are incredibly important pollinators of flowers, fruits and vegetables. While feeding on nectar or collecting pollen, bees inadvertently transfer pollen between the male and female parts, allowing plants to produce seeds and fruit.

Bees improve yields for crops such as apples, pears, beans, peas, cherries, pumpkins, raspberries and strawberries - and our wild bees do it for free! They pollinate around 70 of the main 100 crop species that feed 90% of the world. Without our insect pollinators our supermarkets would have around half the amount of fruit and vegetables.

As bee populations decline, it is not just our food at risk. Bees pollinate many other wild plants which other animals and birds feed on. So losing bees affects the whole food chain.

Buzz pollination is used by some bees to release pollen from a flower. Bees will hold onto a flower and move their flight muscles very fast – the vibrations make the flower release its pollen. Buzz pollination is essential for plants such as tomatoes and aubergines. Our farmed honey bees are unable to undertake buzz pollination.

Why are bees under threat?

Our wild bees and honey bees are threatened by a number of factors. Over half of the UK’s wild bee species has suffered decline over the past 50 years, and six of our bumble bee species have declined by at least 80% in the last 50 years.

The key reasons for declines are:

- Loss of wildflower-rich areas. We have lost 3 million hectares (equivalent to over 4 million football pitches) of wildflowers in England over the last 70 years – that is a staggering 97%! Wildflower-rich areas have been lost to more intensive farming methods and urban/industrial development.
- Pesticide use – intended to kill ‘pests’, these pesticides also harm our wild bees and honey bees.
- Disease – both honey bees and wild bees are at risk from diseases. Honey bees have suffered badly over the past few decades with ‘colony collapse disorder’, meaning billions of honey bees across the world are leaving their hives and dying off. In some areas, up to 90% of bees have disappeared!

How can we help our bees?

Everyone can help bees by putting more bee-friendly flowers back into their local environment.

Urban areas in the UK contain high numbers of bees and other pollinators, with allotments and gardens being particularly important.

Planting more suitable pollen and nectar-rich flowers will provide more food for pollinators. Native wildflower species are particularly useful. If planting ornamental flowers, avoid more ‘complex’ flower types, which make it difficult for bees and other pollinators to access nectar and pollen supplies.

A football pitch full of flowering dandelions can produce over 1 kg of nectar per day, providing valuable food for wild bees and honey bees. So less intensive mowing of parks and lawns can result in more flowers and a greater numbers of insect visits.
Now think about it!

Evaluate your designs

Pupils should be given opportunities to review the project once it has been completed. A process of evaluation allows pupils to reflect on a number of important questions - what have we done; how did we do it; what went well; what could have gone better; what changes would we make next time; what have we learned?

Suggested activities

Facilitate class, group or paired discussion to review the different stages of the design process:

- Think back to the beginning of the project. What were your first thoughts? How does the final design depart from these first ideas?
- Think about your research. How did you research the project? What attracted you to particular images and information? How did your research affect your design ideas? How did your research help you to identify the theme or message included in the design?
- Look at your mind maps and examples of planning. Do you think that this work helped to organise your thoughts, decide on a theme and/or develop the design? Did you experiment with different techniques (e.g. printing, pen and ink, water colours, mosaic) textures, colours and materials? If so, how did this help in developing your design?
- Look at some of your early sketches. Where did you get these ideas? Were you trying to express a message? Did you refine any of these designs? If so, how?
- Look at the sculpture. What was the first thing that needed to be done when it was being decorated? What were the next steps? What problems did you face? How did you overcome these problems? What did you learn?

Let us know what your pupils think about Bee in the City by completing our questionnaire for young people (pages 74 - 77).

Let us know what you think about Bee in the City via our online questionnaire for teaching staff: https://www.surveymonkey.co.uk/r/beeinthecityschools
Key stage 1 & 2 evaluation form

Tick the faces to tell us what you thought.

Name of your school

Meeting your Bee sculpture:

I loved it!  It was ok  I didn’t like it!

Imagining how the Bee sculpture could be painted:

I loved it!  It was ok  I didn’t like it!

Learning about bees:

I loved it!  It was ok  I didn’t like it!

Learning about bees and their impact on our environment:

I loved it!  It was ok  I didn’t like it!

Getting crafty, making bee-related craft projects:

I loved it!  It was ok  I didn’t like it!

What did you enjoy most about the Bee in the City project?

Please post these evaluations to:

Wild in Art
22 Market Street
Whaley Bridge
High Peak
SK23 7LP

Are you proud of your school Bee?

I loved it!  It was ok  I didn’t like it!
<table>
<thead>
<tr>
<th>Activities</th>
<th>Make comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting your school's Bee</td>
<td></td>
</tr>
<tr>
<td>Learning about bees</td>
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</tr>
<tr>
<td>Learning about bees and their impact on our environment</td>
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</tr>
<tr>
<td>Learning about different art and techniques used to make your Bee</td>
<td></td>
</tr>
<tr>
<td>Creating the Bee sculpture design</td>
<td></td>
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<tr>
<td>Applying the design to the Bee sculpture</td>
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<tr>
<td>Visiting your school's Bee on the trail</td>
<td></td>
</tr>
</tbody>
</table>

Did you follow the large Bee trail? If so, how many Bees did you find?

Did you participate in any fundraising activities for Bee in the City (e.g. fundraising walk, fundraising through school/community group)?

Would you like to see another Art Trail in Manchester similar to Bee in the City?

Please post these evaluations to:
Wild in Art
22 Market Street
Whaley Bridge
High Peak
SK23 7LP
About Wild in Art

The Bee sculpture has been created by Wild in Art - the UK leader in the animation of cities, communities and classrooms, with extraordinary, conservation-inspired public art.

We believe passionately in the power of creativity to engage pupils in complex issues and we supply a range of sculptures through which teachers create exceptional, cross-curricular projects.

From Bees to BookBenches and elephants to rhinos, Wild in Art’s sculpture collection and creative resource packs provide a wonderful opportunity to immerse children in cross-curricular learning through fun, hands-on arts activity.

Find inspiration for your own sculpture project at www.wildinart.co.uk | @wildinart
E: hello@wildinart.co.uk T: 01663 308088

Wild in Art would like to thank the following people for their invaluable contribution towards this Resource Pack:

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