

Focus + Area of Curriculum	Objectives	Activity and lesson outline	Differentiation	Resources/ Key Questions	Next Steps/ Necessary Skills
Engage, Develop, Express, Innovate					
Engage science	Use and develop keys to identify, classify and describe living things and materials.	Identify a range of minibeasts from images of a local habitat using identification keys. Learn the scientific categories for the minibeasts: arachnids (spiders), crustaceans (woodlice), myriapods (centipedes and millipedes), gastropods (slugs and snails), annelids (worms) and insects (beetles). Why are the minibeasts grouped in this way? Share some insects for children to create their own classification key. Group work with some large pictures of insects to sort. Photos of this into books. Then children to design own classification key (could use computing program for this)	SEN children to have fewer insects and they have more clear differences. Other children to have a larger variety of similar insects to classify.	Classification guides for minibeasts. Pictures of common minibeasts. Large paper / markers Computers	
Engage geography	Record observations including sketch maps, plans, graphs and digital technologies.	Take part in a mini beast hunt in the school grounds, collecting specimens by tree beating, log turning and net sweeping. Make maps and plans to show the route taken, creating a key to show where each mini beast was found. Children to take photos of different habitats to record where animals were found. Record different animals that were found in a tally chart by making reference to the classification guides we have been using.	Children to be in mixed ability partners and all children to go on hunt with an adult.	Classification keys iPads / cameras for photographs.	
Engage maths	Read, complete and interpret information in tables, including timetables.	Investigate ways of presenting minibeast data so that it could be interpreted accurately by others. Work in groups to decide what type of data could be shown, such as number of segments, number of legs or habitat. Children to be given freedom to choose their methods for recording information.	Mixed ability partners SEN to create a pictograph with TA support.		Problems with pie charts, graph work etc may arise and need to be followed up.
Engage science	Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line graphs and models.	Collect woodlice from the local habitat and bring safely back to the classroom. In a large, deep tray or tank create a variety of different 'habitats' including damp wood, stones and gravel, a water puddle and dry wood. The habitats must be separate but the woodlice should be able to easily move between them. Put all the woodlice in the middle of the tray or tank and leave overnight. Predict which habitat they think the woodlice will choose. Next morning, see where the majority of woodlice have congregated revealing how accurate their predictions were.	Mixed ability groupings Children who are less confident around mini beasts to be accompanied by more confident members of the class	Woodlice Large box / tray Wood Stones Damp cotton wool Gravel etc	Follow up lesson by writing up findings and explanation for why the results happened?



Engage visitor	Memorable Experience 'bugs n Stuff'	Minibeasts' handler to come into school for children to experience some hands on experience with some lesser known mini beasts. https://www.bugsnstuff.com/our-workshops/schools/	n/a	Minibeasts handler
Develop DT	Name and select appropriate tools for a task and use them with precision.	Ask children how we can attract more insects into our local area – discuss ideas and children are to design an idea for a 'bug hotel' What materials? Natural attractors etc? Share best ideas and create a whole class minibeast hotel to be made in school. (maybe in EFYS or allotment) Create the school's own 'minibeast hotel' – a cosy retreat that provides minibeasts with shelter from the elements. Use a range of tools and materials such as stacked wooden crates, house bricks, logs, stones, hay, old plant pots, garden canes, loose bark, carpet rolls and compost. Construct the 'hotel', making sure they shape, join and finish a structurally sound and sturdy hideaway. Observe over time, keeping a record of the minibeasts that move in!	Children to plan their individual ideas for the bug hotel. SEN to have scaffold to help them	Flowers planted. Logs Pallets Soil Stones Plant pots
Develop English	Establish features of a selected form clearly, with some adaptation to purpose.	Look at a range of advertisements for hotel accommodation, analysing the type of words and phrases used to entice customers. Search for examples of common advertisement features in the texts, such as powerful adjectives, informative statements, slogans and use of graphics. Consider how they might entice a range of minibeast customers to come and stay in their hotel! Mind map powerful adjectives and slogans they could use in an advertisement. Model some attention-grabbing headlines, such as 'New luxury minibeast hotel opening today!', 'Five star hotel in the beautiful grounds of school', 'Dark, damp and full of nooks and crannies!'	SEN children to work in a group producing a poster advertising the bug hotel. Other children in differentiated pairs creating a poster to advertise the bug hotel.	Range of advertisements Poster paper / pens



Develop Computing	Understand the need for accuracy when searching for and selecting information. Write detailed instructions.	Search the web for instructions for making a wormery. Compare different versions before deciding which method is the best. Follow the chosen method to create a class wormery (or buy a similar design) Children to investigate imperative verbs to aid writing instructions then create their own instructional PDF or Word document using own digital images. Children should use the skills of saving work, inserting text, custom animation, and uploading/downloading images and sounds. A checklist could be provided to support children's thinking. Find out how many worms live on the school field! Mark out a square on the school field measuring 500 cm by 500 cm using lollipop sticks and string. Perform 'worm charming' in this square, collecting and counting each worm that comes to the surface. Predict, using the number of worms in their initial square (0.25 m²), how many worms might be present in the whole area of the field. Discuss ways this could be calculated and work in groups to solve and explain their approach.	Teacher and TA to support less able. Mixed ability partners – less confident typists to be mixed with more confident.	Wormery Examples of written instructions	Buy a wormery and bring into school to inspire writing.
Develop Geography / Computing	Use search engines, index, contents and other research techniques to locate and interpret information. Produce own scaled maps.	Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied. Match a range of minibeasts to places they can be found around the world. Use the web and a range of reading materials to find out information, then mark on a map of the world where they can be found.(Minibeasts to locate could be the giant African land snail, a tarantula spider, a cobra snake, an Amazonian tree frog, a giant leopard moth and scorpions!)	SEN to have map of Europe and sort insects onto map of Europe. Other children in mixed ability pairs and place insects around the world map. (Could use online map and copy and paste pics)	Maps Google maps Pictures of mini beasts Atlas	



Develop Science	Complete own research/watch documentaries, noting detail on animals and plants in their habitats.	Look at a range of pictures of the homes that minibeasts make and use, including a wasp's paper nest, a cased caddisfly's carefully constructed case, an ant's nest, a froghopper's cuckoo-spit, and a spider's web. Use picture cards to match the home to the minibeast before a 'reveal'. Then find out more about each type of 'home' using a range of non-fiction books and the web. Children to complete cut and stick – matching exercise then research the insect's home to find out some interesting facts. – (Could be presented via ICT)	Children to cut and stick in differentiated pairs. SEN in small group with TA Teacher and TA to support SEN during computer research.	Pictures of insects / homes Access to computers Glue / scissors etc.	
Develop Computing	Prepare and present information in a range of forms, using ICT safely and responsibly.	Look at video footage, images and the web to observe and find out about some of the world's most deadly creatures, including assassin bugs, Japanese or Asian giant hornets, siafu (safari ants), fire ants, tsetse flies, Anopheles mosquitoes, Indian red scorpions and the famous black widow spiders! Using information collected, create a class 'Top Trumps' game using a PowerPoint slide for each deadly creature. Play top trumps with cards – show deadly beast top trumps from home. Discuss technique – linked to maths – which would give us best chance of winning e.g. is 7 out of 10 better than 63%?	Differentiated pairs	Top trump cards Research about mini beasts Computers	
Develop Art / history	Use simple rules of perspective in drawings of figures and buildings.	Improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials Look at a range of Charles Darwin's highly detailed drawings of insects and creatures made during his investigations. Choose a deadly beast to draw with close attention to detail, adding tone and texture using pencil, or colour using watercolour paint. Children will require time to investigate the different sizes and tones of pencils and how pressing them differently creates different effects. Create pencil sketch pads and look YouTube clips etc of different sketching and drawing techniques. Discuss differences in drawings e.g. of Darwin's finches and how these led to his theory of evolution. Investigate Darwin's life for an extended writing autobiography.	Children to produce sketch sheets with different pressures and tones of shading. Create a bank of different tones and thicknesses produced by different pencils. Create deadly beast sketches using a range of pencils and sketching.	Range of pencils Images of Darwin's sketches. Paper YouTube clips	With time permitting we could look at developing water colour skills and create water colour drawings of the insects.



Develop Science	Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line graphs and models.	Create food chains and webs using themselves as a creature and string to link the chain. Be able to define the terms: predator, prey, consumer and producer. Put a sticker on each child with the name of a familiar creature written on it. Ask the children to arrange themselves in pairs or groups according to a specific request, such as 'Find another creature that you eat or eats you' or 'Group yourselves into predators, prey, herbivores, carnivores or omnivores.' Culminate with the class arranging themselves as a physical food chain or web. Discuss their choices and any conflicted ideas as they arise.	Children to create differentiated food webs More able children to create more complex food webs which interlink.	Animal pictures Key vocabulary list Cut / stick pictures for SEN	
Develop English	Listen to and discuss a wide range of poetry, independently, across all curriculum areas, discussing and beginning to justify their own preferences.	In pairs, listen to the limerick suggested, noting down the rhyming words and identify the rhyming pattern. What other words could be used as substitutes for the existing ones. A limerick is a nonsense poem, written in five lines with the rhyming pattern AABBA. Example There once was a family of ants, Who liked to make use of the plants. They were fast and strong, But didn't live long. Just be glad that they're not in your pants! Explain to children that they will be writing their own limerick about a common garden minibeast. Begin to collect rhyming words on whiteboards or sticky notes, such as snail, trail and mail. Children to write their own limerick linked to their mini beast but it must be anatomically correct and based on facts we have researched. Follow up lesson looking at further poetic technique of Kennings – look at history of Norse invaders and create linked to mini beasts e.g. Ladybird – Aphid killer, spotted flyer, poison squirter etc	SEN to work with TA to create a group limerick. Use of iPads to use rhyming words generator	Copy of original limerick Pro forma with line arrangement. Mini beast research	Could create a poetry book with our limericks and kennings.



Develop Art	Create a monochromatic collage which incorporates text.	Create a mixed media collage on the theme of metamorphosis. Use printed images, photographs, rubber stamps, newspaper, ink washes, water colour, and experiment with enlarging, photocopying, repetition, scale and colour to create an original piece where each stage of a minibeast's life cycle is represented. Make sure each life stage is represented in their collage! Look at the work of the artist, Kurt Schwitters, was a master of mixed media and collage, although there are many contemporary artists who also use this technique.	Mixed ability pairs and teacher /TA support where required	Examples of Kurt Schwitters art work. Collections of photos / magazines articles.	
Innovate Computing PHSCE 4/5 lessons	Select, use and combine a variety of software (including internet services) . Select from and use a wider range of materials and components, Research, discuss and debate topical issues, problems and events.	Use your research skills to find out which minibeasts feed on the common aphid. Record your findings in a food chain or web. Look at the features of these animals and make notes Check out the unique characteristics of each aphid predator. Make scientific drawings of them, labelling each with its characteristics and annotating with key facts. What sort of people find common aphids a nuisance? Why? Why would a super-strong aphid be an even bigger problem? What damage might it do and how might it affect the UK's eco-system? Discuss problems with over farming / pest resistance etc. Selective breeding can achieve amazing things! It's your job to consider how to breed a fearsome predator which can exterminate the super-strong aphid! Record your ideas in notes, diagrams, tables and charts. Write a page for your creation in the 'Encyclopaedia of Minibeasts'. Describe its characteristics, favourite habitat and how to look after it. You may like to add some interesting facts about your beast.	TA support – group work Children in pairs to create an encyclopaedia page about their own minibeast.	Computers Examples of scientific drawings.	



Express English	Use a given variety of planning structures to make appropriate notes, including topic-specific vocabulary. Develop character and settings,	Write a fantasy story telling the story of their minibeast's adventure, in the first person (or first bug!) Begin to draft out some ideas for each stage of their story: the beginning where they introduce their character, set the scene and set up the problem; the middle, in which their beast has to deal with the problem of the Super Aphids; and the end, where their character sorts out the problem (or not!) and the story finishes.	SEN children to work with TA to create group story.	Story mountain to plan mini-beast. Thesaurus	
	including within own scripted drama, using similar writing models to adapt own ideas.	Begin to work on their story beginnings in more detail, introducing their bug; describing its creation and awakening. Remember to set the scene, building up the problem. Aim to keep the reader interested so that they want to find out what happens next. Swap their story starters with a writing partner to help suggest ideas for improvements.			
		Develop the middle parts of their stories, working independently but sharing ideas and suggestions with a writing partner. Think about what the reader wants to know as the story develops, both in terms of the character and the problem.			
		Finally, resolve their story, describing how the problem is solved and how the story ends. Consider what happens to their super bug. Is it eradicated? Does it live on? Does it evolve and adapt to the world?			
Express DT	Select and combine materials with precision.	Build a 3-D model of your beast. Choose the best materials Create their fantasy beasts in 3-D using the techniques of stitching, bonding, cutting and joining. Choose from a range of textile and sculptural materials including soft wire, net, beads, hessian, felt and other mixed media to construct their detailed design.	Mixed ability groups / teacher / TA support where required.	Range of textiles Glue / scissors etc	
		Encourage the children to think about the physical properties and characteristics of different materials, choosing those which best suit the physical properties of their minibeast. Explore translucency, reflectivity, weight, strength, texture, rigidity, elasticity and flexibility.			
		Children to have group sessions looking at sewing techniques which they could use in this area.			



Express COMPUTING / ART	Combine a range of media within a piece of work and explain the desired effect.	Make a 'Fascinating fact file', presenting twenty amazing facts about minibeasts. Make their fact files look beautiful, illustrating them and covering with an insect-themed book cover or sleeve. The book covers could be a montage of insect imagery, or high resolution photos of beautiful insect iridescence. Display the children's files for parents and carers to view. Perhaps invite parents in for a special viewing of all the children's minibeast work			Book to be presented alongside poetry books and finished art work. Parents invited in to see finished unit.
Express ART/DT	Test and evaluate products against a detailed design specification and make adaptations as they develop the product.	Use junk materials including boxes, tyres, rope, bricks, plastic pipes, sheets, card and other found and reclaimed materials to create large-scale 'minibeasts' in the outdoor environment. Take digital pictures of the work in progress to talk about later and to record their temporary constructions. Evaluate their designs, considering others' views, comments and suggestions. Inspire children by looking at the work of kinetic sculptor Theo Jansen. His <i>Strandbeests</i> and Neil Buchanan's Large art attacks.	Mixed ability groups / teacher / TA support where required.	Range of junk modelling equipment. Cardboard / tubes etc Camera Examples of Theo Jansens- Strandbeests Art attack – YouTube clip	