

# Bury Beetles Topic Spring Summer 2018

## Curriculum areas covered.

KS1	English	Maths	Science	Art	DT	History	Geography	PE	PSCHE	MFL	RE	Computing	Music
KS2	English	Maths	Science	Art	DT	History	Geography	PE	PSCHE	MFL	RE	Computing	Music

Art KS1	Art KS2
To use a range of materials creatively to design and make products.	Produce creative work exploring ideas and recording experiences
To use drawing, painting and sculpture to develop and share their ideas, experiences and imagination	Record observations to review and edit
To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space.	Improve mastery of art and design techniques including drawing painting and range of materials
Learn about the work of a range of artists, craft makers and designers and making links to their own work.	Become proficient on other craft techniques

Science KS1	Science KS2
Identify and name a variety of common animals	Making scientific recordings using scientific language, drawings and labelled diagrams
Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals.	Describe life cycle of insect
Identify and name a variety of animals in their habitats, including microhabitats.	Making scientific recordings using scientific language, drawings and labelled diagrams
Describe and compare the structure of a variety of common animals.	Explore and use classification keys to identify and name a variety of living things in their local environments
describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.	Gather record classify and present data in a variety of ways
	Report on findings to enquiries orally and written presentations

Geography KS1	Geography KS2
Use simple fieldwork and observational skills to study the geography of their school and its grounds.	Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

DT KS1	DT KS2
Design purposeful, functional, appealing products for themselves and other users based on design criteria.	
Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	
Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	
Select from and use a wide range of materials and components, including textiles according to their characteristics.	
Explore and evaluate a range of existing products.	
Evaluate their ideas and products against design criteria	

## Learning activities

At the end of this unit the children will have created:

Lino print
Tapestry beetle (KS1)
Watercolour beetle (KS2)
Non fiction report on a beetle
Graphs and charts about beetle in school grounds
Poem
Presentation to parents

## Art

### Lino Printing

- Learn about lino printing from an expert
- Look at lino examples
- Design own lino print of a beetle
- Cut own lino print and print copies
- Evaluate their work

### Watercolour painting KS2

- Look at the book 'The Lost Words' – discuss the paintings, what is on the page, look at the detail, colour choice, use of brush technique.
- Sketch 'their' beetle in a landscape – do several versions
- Sketch picture
- Colour matching testers in sketch book
- Watercolour test pieces in sketch book
- Fill in beetle sketch with colour.

## DT

### Tapestry KS1

- Look at existing examples of tapestry- discuss techniques used.
- Demonstrate and practise sewing skills – running stitch/backstitch/blanket stitch
- Design own beetle tapestry in sketch books- think about choice of colour/ fabric / adornments used
- Write an explanation of why materials chosen are appropriate.
- Make beetle tapestry

## Science

### Non-fiction text about beetles (Choice of presentation)

- Research a local beetle in pairs mixed age – habitat, life cycle, camouflage, predators and prey, rarity....
- Write up as a report – chn can choose how this is presented – leaflet/video/poster/written/speech (English)
- Draw and label a scientifically accurate beetle diagram (based on biological Victorian drawings)

### Trapping and observation of beetles

- Discuss appropriate trapping techniques
- Make safe traps
- Twice daily check traps and record findings in a table/tally– number of beetles, type of beetles, weather conditions etc. (Maths)
- Record findings in appropriate graph/chart for the KS (Maths)

## English

### Writing poetry

- Listen to and see some examples of Haiku, Kenning and acrostic poems
- Chn choose to write, edit and redraft either a Haiku, Kenning or acrostic poem based on 'their' beetle.
- Present the poem appropriately

### Non-fiction text about beetles (Choice of presentation)

- Research a local beetle in pairs mixed age – habitat, life cycle, camouflage, predators and prey, rarity....
- Write up as a report – chn can choose how this is presented – leaflet/video/poster/written/speech (Science)

## Maths

### Trapping and observation of beetles (science)

- Discuss appropriate trapping techniques
- Make safe traps
- Twice daily check traps and record findings in a table/tally– number of beetles, type of beetles, weather conditions etc. (Science)
- Record findings in appropriate graph/chart for the KS (Science)

## Key 'School Wide' Vocabulary

<b>Reproduce /reproduction (Of animals and of lino prints)</b>	<b>Observe/ Observation/ observational</b>	<b>Environment</b>	<b>Classify/ classification</b>
<b>Invertebrate/ vertebrate</b>	<b>Record /recording</b>		

See National Curriculum coverage document for how this unit fits with the rest of our curriculum.

# Knowledge Organiser

## Beetles

<b>Abdomen</b> – the last section of a beetle’s body	Adult beetles have 2 sets of wings
<b>Thorax</b> – the middle section of a beetle’s body	Female beetles lay hundreds of eggs
<b>Antenna (antennae)</b> - feelers that help a beetle sense its surroundings	Most beetles only live for a year
<b>Chitin</b> – What a beetle’s shell and legs are made of.	Beetles cannot see very well – they communicate using pheromones, sounds and vibrations
<b>Colony</b> – a group of beetles	There are 300,000 types of beetle in the world
<b>Coleoptera</b> – the scientific name for the beetle species	Beetles can help humans by doing things like pollinating plants
<b>Elytra</b> – beetle’s wing cases	Beetles can make life hard for humans by doing things like destroying crops and eating the wood in our houses
<b>Exoskeleton</b> – on an animal that doesn’t have a skeleton inside the body	Beetles can be found in every country in the world
<b>Habitat</b> – where an animal lives	Beetles come in every different colour and can be metallic and shimmery
<b>Larva</b> - a stage of the beetle life cycle before it turns into the beetle.	Beetles metamorphose - They start as eggs, hatch into larvae, turn into pupa then transform into adult beetles
<b>Maggot</b> – a stage of the beetle lifecycle – it has no legs	All beetles have 6 legs
<b>Mandible</b> – jaws of a beetle	
<b>Pheromone</b> - a chemical that beetles can sense. It helps them send messages.	
<b>Predator</b> – an animal that eats other animals	



