

Schools, Natural Sciences and Curriculum Links



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Roz Wade, Museum of Zoology



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Schools, Natural Sciences and Curriculum Links

Schools and Natural Sciences Collections



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Schools, Natural Sciences and Curriculum Links

Learning Resource

Collections

Spaces and Equipment



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Schools, Natural Sciences and Curriculum Links

KS1 & 2: Supporting the Science Curriculum

Working Scientifically

Using a variety of approaches to teach:

- Observation
- Pattern Seeking
- Identifying, classifying and grouping

Focus on first-hand practical experiences
over reading textbooks

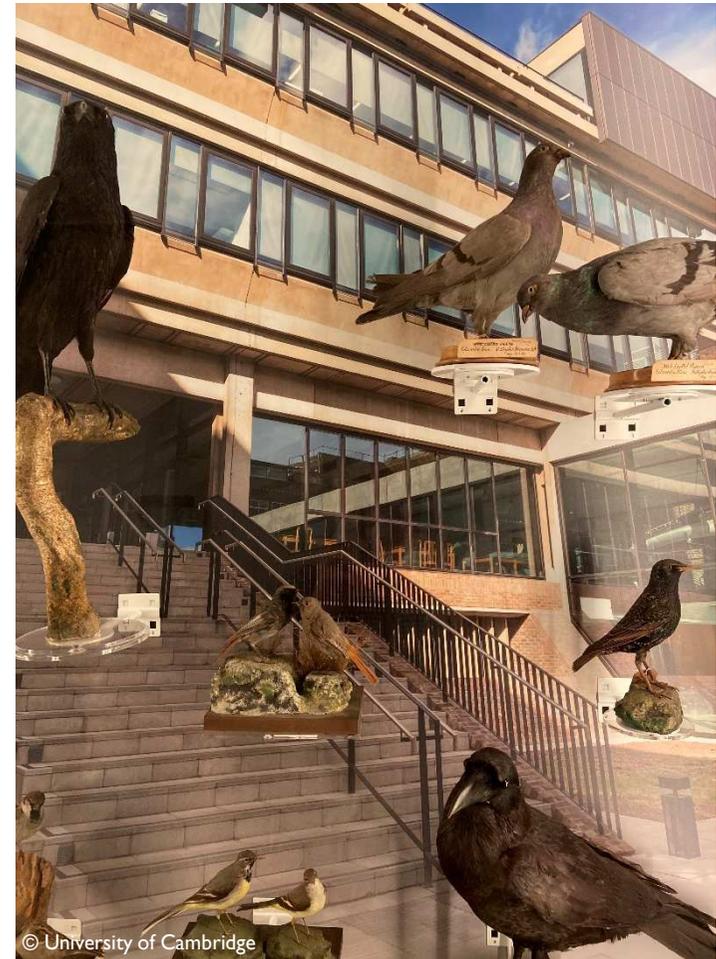


Schools, Natural Sciences and Curriculum Links

KS1 & 2: Supporting the Science Curriculum

KS1 (Years 1 & 2)

- Identifying and naming common plants and animals + general characteristics
- Seasonal changes
- Living things and their habitats
 - How they are suited to their environment
 - Simple food chains
- Needs of plants and animals for survival
- Basic development of plants and animals



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KS1 & 2: Supporting the Science Curriculum

Museum of Zoology KS1 offer

- Habitats session
- Comparing local habitats with African plains with toys and stories
- Handling session: using skulls to look at the diets of British mammals
- Worksheets and gallery exploration to build food chains and find animals adapted to different habitats



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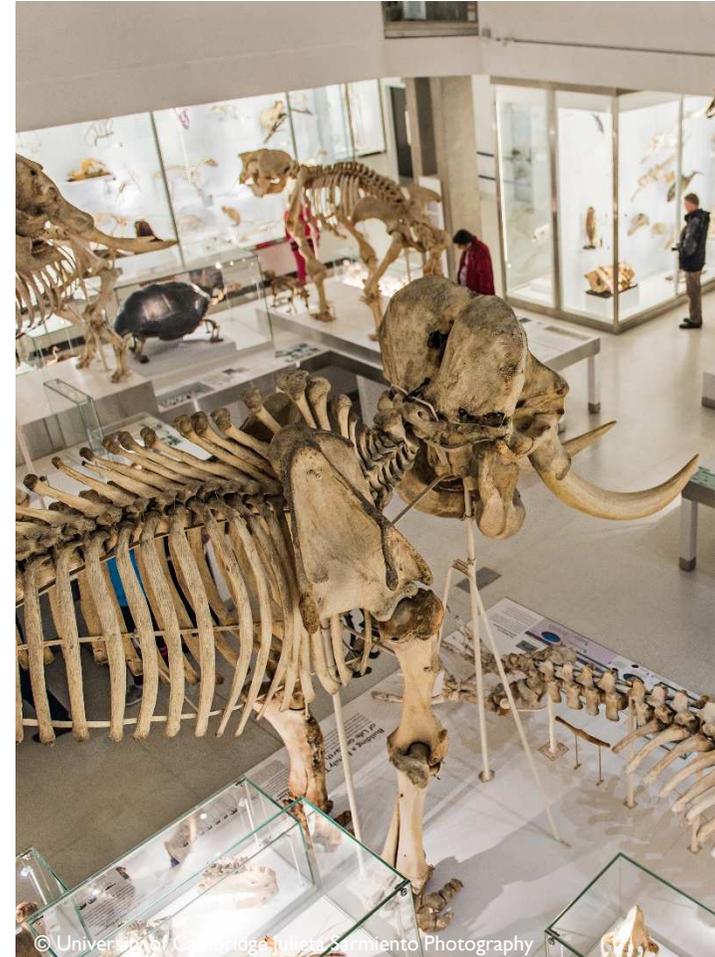
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KS1 & 2: Supporting the Science Curriculum

Lower KS2 (Years 3&4)

- Nutritional requirements of animals
- Teeth and their functions
- Skeletons of animals including humans
- Classification keys
- Food chains
- Habitat change
- Basic structure of plants + life cycle of flowering plants
- Classifying rocks
- Introduction to fossils



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KS1 & 2: Supporting the Science Curriculum

Museum of Zoology Lower KS2

- Skeletons session
- What does a skeleton do?
- What can we see in a skeleton?
- Use of handling collection to explore what vertebrate skeletons are made of
- Comparing human skeletons with other vertebrate skeletons
- Other types of skeleton



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KS1 & 2: Supporting the Science Curriculum

Upper KS2 (Years 5&6)

- Life cycles and reproduction in animals and plants
- Classification based on observable characteristics – Linnaeus
- Evolution and inheritance – fossil record as evidence of change over time; how animals and plants are adapted to suit their environment; that adaptation may lead to evolution.



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KS1 & 2: Supporting the Science Curriculum

Museum of Zoology Upper KS2

- Evolution session
- Focus on making observations from the collections and interpreting adaptations
- Explore Darwin collections – his development as a naturalist and the observations he made
- Activities to look at how natural selection leads to adaptation
- Use of handling collection to explore skull structure and feeding adaptations



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KS1 & 2: Natural Sciences in other parts of the curriculum

- English: Listening, reading, comprehension, discussion, writing
- Maths: Numbers, calculations, fractions, geometry
- Art and Design: Using drawing to develop and share ideas, experiences and imagination
- Geography:
 - Locational knowledge (where places are)
 - Place knowledge (what places are like)
 - Physical geography (biomes, climate, geographical features)
- History:
 - Lives of significant individuals (e.g. Charles Darwin)
 - Local history



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KS3&4: Supporting secondary schools

- Topics in Biology:
 - Skeletal and muscular systems
 - Ecosystems
 - Genetics and evolution
- Art and Design
 - Observational drawing



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And finally...

- Think about the resources you have available – what is in your collection? What observations can students make from your collections?
- Working scientifically – framing questions, collecting data, developing observation skills
- What active learning experiences can you provide?
- Can you make it cross-curricular e.g. incorporate literacy and numeracy skills, include place and locational knowledge etc.
- Not all schools have to follow national curriculum.



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