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

Staff

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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
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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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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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
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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*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
KS3&4: Supporting secondary schools

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