Animal Architecture Project Pack

Made by the Learning team at

With special thanks to Stephanie Johnson and RIBApix

RIBA Architecture.com

About this pack

- In this pack, you will find:

  a) some key information for adults to help understand how this project can be used to supplement and cover aims of school learning

  b) sheets for children to lead their own architecture focussed design project.

- Each project is broken down into 4 parts:
  - Explore
  - Design based on a design brief
  - Make
  - Evaluate

This fits with the Primary National Curriculum format for Design Technology (DT) learning.

- We have included Art & Design, Design Technology and Science curriculum aims in this project. We have listed the curriculum aims that this particular project covers at each stage.

Key information and aims

Key words – make sure you know what these words mean. Use a dictionary, the internet or an adult to help you.	Architect – someone who designs buildings. Client – the person/animal who will use the building. Habitat – the place where an animal's home is located. Front elevation – the front view of a building.
Materials – what you will need to collect to do this project.	Things from the recycling bin – make sure they are clean! Tape or glue Scissors A piece of paper A pencil or pen
Skills - what you should know how to do by the end of the project. Can you show someone else how to?	I can design with a client in mind. I can communicate my idea by drawing it. I can build a 3D model based on my drawing. I can compare my work to the work of professional architects.
Knowledge – what you should know by the end of the project. Can you tell someone else about it?	I know about some architects who have designed houses for animals. I know about the process of working to an architectural brief. I know about what an animal might need to survive in a habitat.
Extension activities – other things you can do to build on your learning	Find other examples of animal architecture – in books or on the internet Write a factfile about an architect who designs interesting buildings for animals Make a bee house: https://friendsoftheearth.uk/bees/make-a-bee-house

What the National Curriculum says children should learn:

Explore

Know about great artists, craft makers and designers, and understand the historical and cultural development of their art forms. (art)

Key stage 1 (5-7 year olds):

- explore and evaluate a range of existing products (DT)
- learn 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 (art)

Key stage 2 (7-11 year olds):

- investigate and analyse a range of existing products (DT)
- understand how key events and individuals in design and technology have helped shape the world (DT)
- To learn about great artists, architects and designers in history, describing the differences and similarities between different practices and disciplines, and making links to their own work (art)

Design

Key stage 1 (5-7 year olds):

- design purposeful, functional, appealing products for themselves and other users based on design criteria (DT)
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology (DT)
- to use a range of materials creatively to design and make products (art)

Key stage 2 (7-11 year olds):

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups (DT)
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design (DT)

Make

Key stage 1 (5-7 year olds):

- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] (DT)
- select from and use a wide range of materials and components, including construction materials, textiles, according to their characteristics (DT)
- to use drawing to develop and share their ideas, experiences and imagination (art)
- to develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space (art)

Key stage 2 (7-11 year olds):

- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately (DT)
- select from and use a wider range of materials and components, including construction materials, textiles, according to their functional properties and aesthetic qualities (DT)
- to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (art)

Evaluate

Evaluate and analyse creative works using the language of art, craft and design (art)

Key stage 1 (5-7 year olds):

- evaluate their ideas and products against design criteria (DT)

Key stage 2 (7-11 year olds):

- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work (DT)

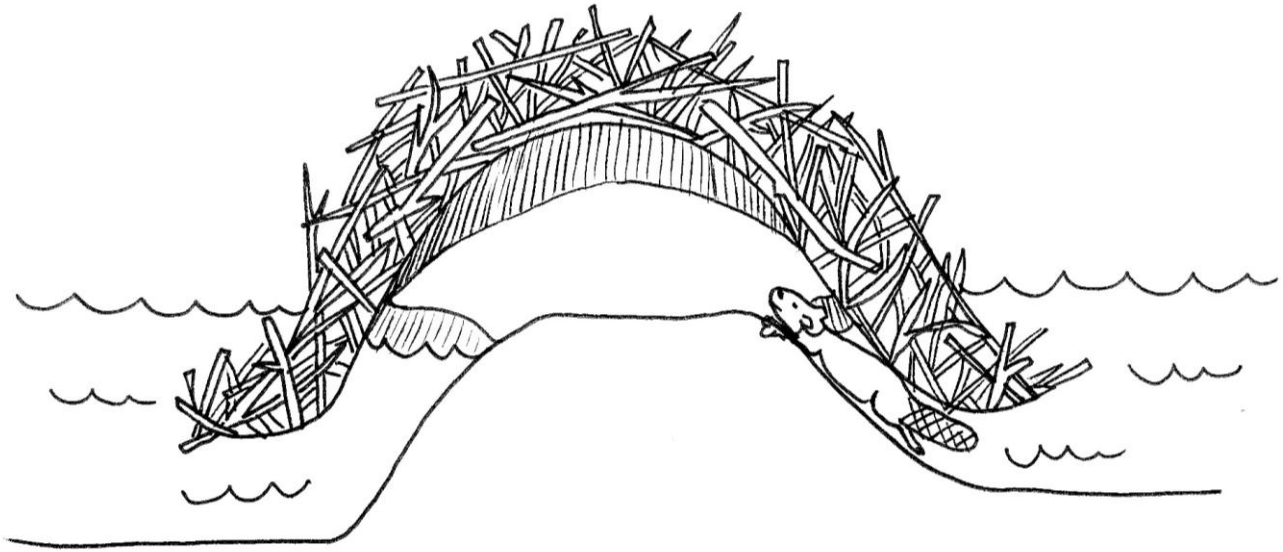
Science Curriculum links

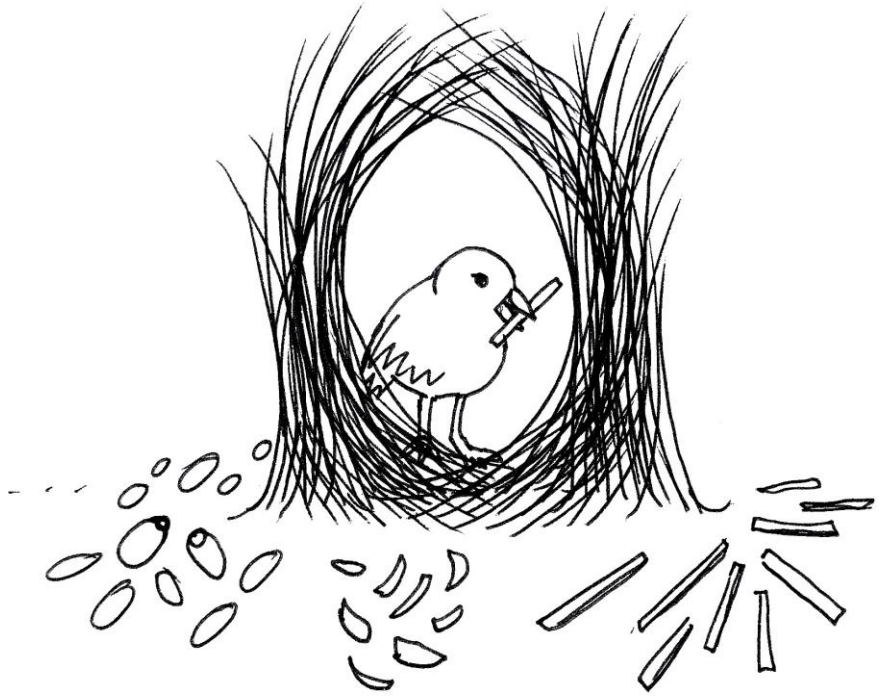
Key stage 1 (5-7 year olds):

- 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 and plants, and how they depend on each other.

Key stage 2 (7-11 year olds):

- recognise that environments can change and that this can sometimes pose dangers to living things.





Animal Architecture

Explore

This is a project about animal houses! Eventually you will be working as an architect to design an animal home. An architect is someone who designs buildings and places.

The Smithsonian National Zoo in the US employs a special type of architect, called a landscape architect. The landscape architect designs the whole zoo, as well as the animal's houses and habitats.

Watch the video - Zoo Jobs: Meet a Landscape Architect

What might an architect who has to design animal's homes have to think about when they create their design?

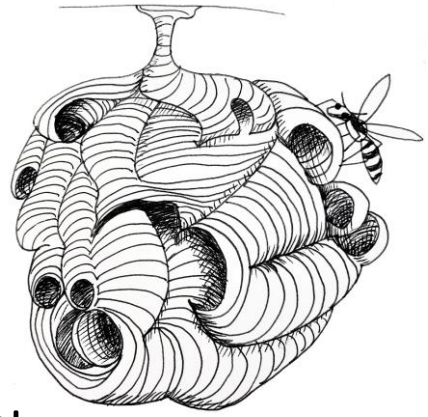
Illustrations by Dovilė Čiapaitė

Explore

Look at these homes for animals made by animals themselves.

Do they have rooves, walls, entrances, places to hide?

Why has each animal designed their home like this?

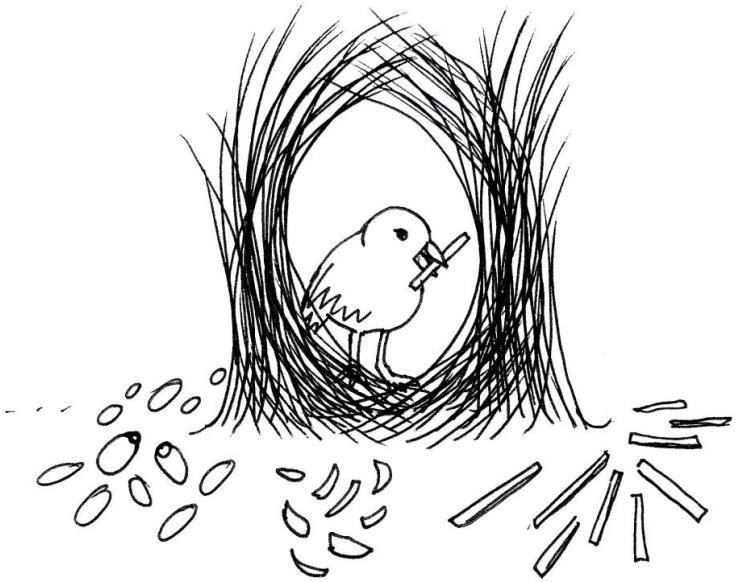


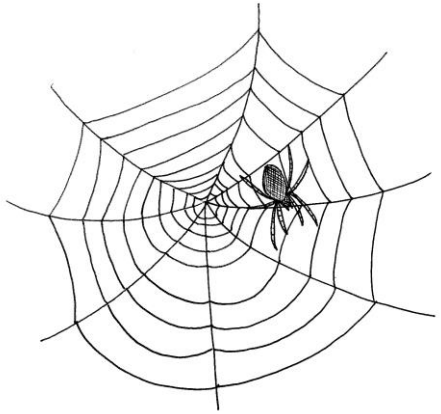
A paper wasp nest

Do you think the paper wasp lives here alone or with its family? What makes you think that?

A bowerbird nest

Why has the bowerbird collected beautiful objects around his nest?



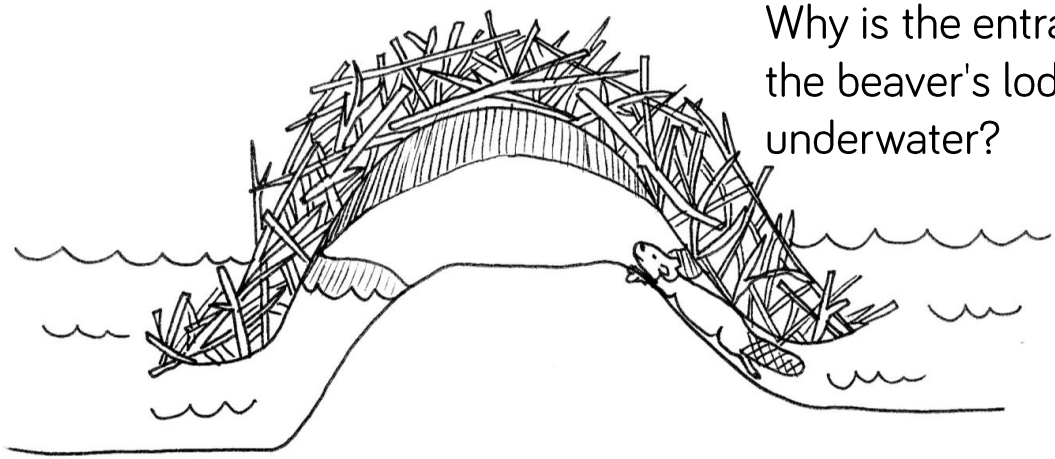


A spider web

What do you notice about the way the web has been built?

A beaver lodge

Why is the entrance to the beaver's lodge underwater?



Illustrations by Kate Westbrook, RIBA Learning

Explore

Look at these homes for animals designed by human architects:

Penguin Pool by Lubetkin Drake & Tecton, 1934, London Zoo, Regent's Park, London. RIBA Collections

Elephant and Rhinoceros House by Casson Conder & Partners, 1965, London Zoo, Regent's Park, London. Architectural Press Archive / RIBA Collections

What features has the architect included that might be good for the animal?

How are these designs similar or different to each other?

Which styles of architecture do you like?

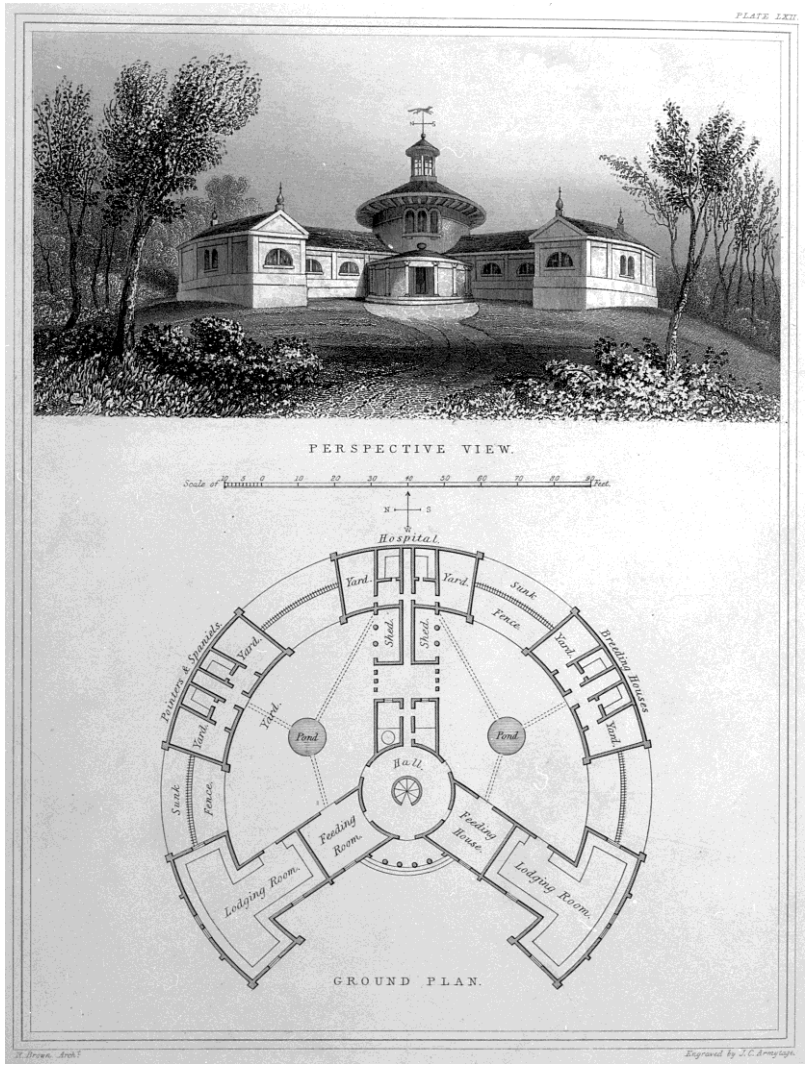
What features might you use in your own design?

Explore

Look at these homes for animals designed by human architects:

Snowdon Aviary, 1964, London Zoo, Regent's Park, London, seen from across the Regent's Canal. Architectural Press Archive / RIBA Collections

Design for a dog kennel: plan and perspective. Richard Brown, 1842. RIBA Collections



What features has the architect included that might be good for the animal?

How are these designs similar or different to each other?

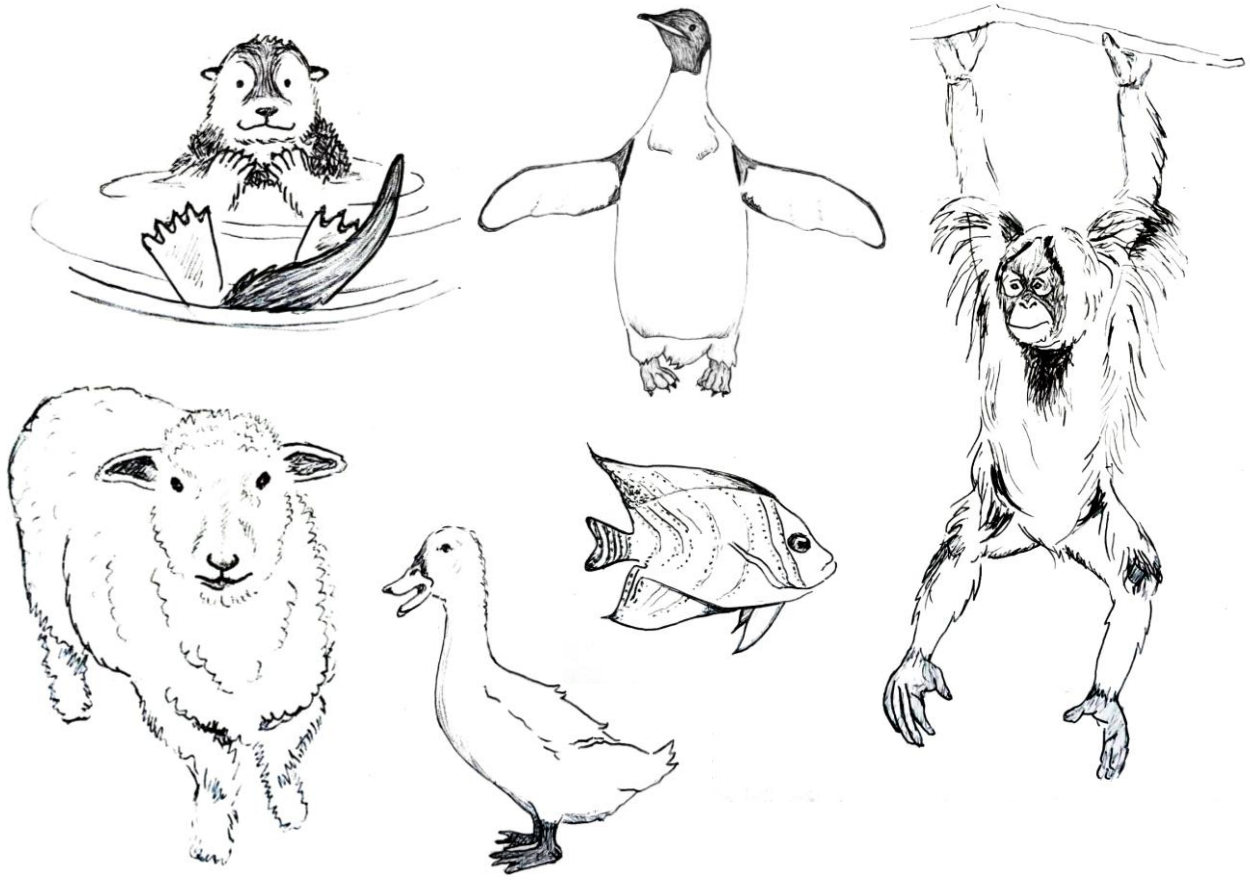
Which styles of architecture do you like?

What features might you use in your own design?

Design

In this project you are working as an architect.

Choose from the animals below, or pick another animal.



What animal have you chosen?

What do you think this animal would ask for in their house?

Think about:

- What do they need to survive: What do they eat? Do they breathe air or water?
- What do they like to do?
- In what habitat/environment would they usually live? Is it hot or cold? Dry or wet?
- How do they move around?
- Do they live alone or with a family group?
- How big is the animal?

Extension: make a fact sheet about your animal to explain more about it.

Design

Draw your design for your animal home.

Think about how the house will keep the animal safe and comfortable. Include the environment in which it usually lives.

This drawing will need to be a front elevation like the drawing on the left and it will need to be labelled. Use the box to the right or a separate sheet if you need more space.

What happens if the environment changes? Is your piece of architecture adaptable?

Extension: Include how your house might help the animal keep safe from predators/catch their prey.

Extension: draw the house from another viewpoint.

Draw and label your animal home here:

Make

Look at your drawing of your house. Think about the materials you can collect to use – is there anything in the recycling bin? Make sure it's clean!

How can you cut or join your materials to make the shapes you will need to make a 3D version of your animal house?

Start building!

Copyright Periscope Studio.

Copyright Rachel Manns Photography.

3D building ideas by RIBA Learning.

Evaluate

Look at your design (front elevation) and your 3D model.

Explain what you did in the project (think about what you were asked to do and how you did it):

Can you see any similarities or differences to any of the architecture you looked at whilst you were at the Explore stage of the project?

Does your design fit the brief: would the animal be happy and why?

Would you change or improve anything?

Extension:
Ask other people to give you feedback! Is there anything they can suggest to improve your design? Make the changes to improve your design.