



## Create-A-Bird 2023

*in association with British Science Week 10-19 March 2023*

### CONSTRUCTION TECHNIQUES & ENGINEERING TIPS

#### **Q: How can we get strength from paper & card?**

By folding or rolling, you create 'thickness' which allows the paper or card to reinforce itself and not collapse so easily. Pleating (concertina folding) is an excellent way to get strength. Also think about shapes that are used to build strong structures – such as triangles.

#### **Q: We have no glue or tape. How do we stop paper & card from un-rolling or un-folding? How do we attach 'wings' or 'legs' to our birds?**

By using cutting and slotting or by using tabs which can be cut and folded inwards or outwards, or by inventing your own technique. To 'cut and slot', with two separate pieces of card/paper, cut a slit into the middle of both pieces then join the two shapes by sliding both pieces together at the cuts. To stop lengths of paper/card from unrolling you can also use a strip of card/paper like a 'belt', securing 'the belt' using the 'cut and slot' technique.

#### **Q: What are the important considerations in creating a Bird?**

You will need to think of a way of hanging your bird or a strong base to support the body, make this your first priority. The bird also needs to be steady – so you need to be careful with any cutting. Research birds and the parts, look at the way the birds are formed and see how you might be able to create your own. Think about where they live, for example, what type of bird lives in a hot or cold climate? Although roots are mentioned, the children do not have to make a standing (ie above soil level) plant.

When adding wings or other features, it's important to think about balance – develop them in more than one direction otherwise the bird will not hang properly or stand up. For the most 'life-like' birds, the overall shape is very important – have a look at bird images, all types of birds. Remember you only have 4 pieces of paper to do your challenge. Practice with folding and cutting techniques before attempting your own Create-your-own-Bird!

Don't forget this is a 'Create-a-Bird' so let your children use their imaginations!  
Please send all winning entries to me by Friday 31<sup>st</sup> March 2023.

If you need any further information please contact: [h.bailey@stempointeast.org.uk](mailto:h.bailey@stempointeast.org.uk)

# 10 Amazing Facts about Birds

1. There are believed to be around 10,000 different species of bird, but recent studies suggest this could be as high as 18,000! They range from big to small, and are lots of different colours!
2. All female birds lay eggs. Their chicks then hatch out of the shells when they are ready. If you look up into the trees, you might be able to see a nest, but not all birds nest in trees; some nest on the ground, or on cliffs, or on floating platforms, or in holes in buildings. Birds make nests so that they have a safe and warm place to keep their eggs.
3. Lots of birds migrate to other countries, which means, depending on the season, they fly elsewhere. This is often to do with the weather of different countries or places. If their food is running low, they need to find it somewhere else to survive! Around 4,000 birds migrate, including many "British" summer birds such as Swallows (South Africa), Cuckoos (Central Africa) and Ospreys (Western Africa).
4. All birds have feathers and they are very useful for lots of different reasons. Feathers help birds to fly. They help to control the wind when flying through the air. They also keep birds warm in the winter! Did you know that birds also use their feathers to show off? A peacock does exactly this! A male peacock will show all of his feathers to attract a mate.
5. Birds don't have teeth which means they have to swallow food whole. They have an organ called a gizzard which grinds up their food. This then helps them to digest it properly.
6. Birds are great communicators. Birds chirp and sing, they do this for lots of different reasons. One of the reasons is to attract a mate. Another reason is to warn other birds of danger. They also do it to scare off predators!
7. A group of birds is called a flock, and can be all the same species or sometimes mixed flocks of similar species, such as Thrushes. They stay very close together. It is believed they do this as they are safer from predators when they are in a group. When they are in a flock they are usually travelling together or looking for food.
8. Some birds can mimic humans! You might already know that parrots can mimic what we say. Crows and ravens can also do it... although wild ones haven't had much practice.
9. Ostriches eyes are larger than their brains! As well as their large eyes... they also lay the largest eggs. ...AND they are the largest living bird!
10. The smallest bird is a Bee Hummingbird. The Bee Hummingbird is the smallest bird on the planet. It can grow from 5 to 6.1 centimetres. Have a look on your ruler to see how small that is!

**Also** did you know Peregrines nest on high buildings often cathedrals or churches (cliffs). There are a number which have cameras on the nests so you can follow the development of eggs and chicks and if you happen to visit you might actually see them. eg Wakefield Cathedral, Norwich Cathedral, St. Albans Cathedral, Cromer Parish Church. The Cromer one starts livestreaming on 1 March.

## **Photographing the Winning Key Stages and important information**

When you have chosen your winning entries for either Key Stage one or Lower Key Stage two/ Upper Key Stage two or all, please can you make sure they are photographed against and on a plain background, and please put a clear note in front of the model the year group and if you would like you can mention the children who made it, first names only please. See form attached that you need to send images and information back.

**You can send up to but no more than 3 images per winning entry** and if you are able to, please photograph with the children, however please make sure you have permissions as we will use these images for our marketing via our website and newsletters.