Conclusions

Students look at the "nests" to which they have carried food and match the corresponding species of birds to the tools they have used. They should justify their choices.

1. **Food in the form of nectar - dropper - hummingbird**
   - small bird, not able to store a large amount of food - it collects food that is energy-dense
   - sucks in liquid food using a long beak and tongue (a dropper sucks in liquids in a similar way)
   - hovers in the air above a flower while collecting food – its wings beat 80 times a second

2. **Food floating in water - a tea infuser - water birds: ducks (mallards) and swans**
   - on the edges of their beak they have thin plate-like structures that serve to filter food and let out water - they capture small invertebrates and aquatic plants

3. **Food concealed in the bark of trees/in cones - tweezers - woodpecker**
   - has a long strong beak, thanks to which, it can bore holes, find insects and their larvae under bark, and can also drum on branches, wood knots, and sometimes even on road signs and gutte
   - woodpeckers prepare so-called anvils - cracks in bark, into which a cone can be placed so that the seeds can be pulled out of it. In order to find an insect in the cone, the bird has to tap it.
   - the bird reaches its food because it has a very long tongue – up to 3 times longer than its beak. It is sometimes referred to as a "tree doctor," because it eats parasites that can harm trees.

4. **Food located on tree bark/on leaves - hairpin - chickadee**
   - collects insects and their larvae "from the surface of the tree," i.e., the leaves, or the surface of the bark.
   - has a small, cunningly designed beak

5. **Small animals - staple remover - bald eagle**
   - has a curved beak with which it catches small animals, e.g., rodents, and hares.
   - eagles grab their prey with their talons (claws), and the beak only serves later to divide the food into small pieces for swallowing

6. **Grains - pliers - sparrow**
   - has a broad and strong beak, and can hold a pip/stone or a hard grain, and easily split it.

Conclusions

Discuss the significance of the diversity of birds' beaks.

The significance of the diversity of birds' beaks

Thanks to the diversity of beaks, different birds can eat different food. If they all had the same beaks and ate the same food, they could have a problem with obtaining it – they would compete for food and might start fighting for it, which could lead to the death of many birds. Currently, shortages of some kinds of food can occur, but then only those birds that feed on that particular type of food die (e.g., if there is a lack of flower nectar, only hummingbirds are threatened, and not birds that feed on grain, etc.). Thanks to this diversity, birds have different "seats at nature's table" – there is enough food for each of them and they do not have to steal it from each other. They live in a variety of environments, are adapted in a way that is unique to them, and we can admire their diversity of forms.

Observing

Invite students to come to the tables where bird food has been set out before the lesson. Tell them about foods that are good for birds.

Which foods are good for birds?

Natural foods are suitable for birds – foods that they obtain themselves in nature: nectar from flowers, small insects, worms, aquatic plants, seeds, larvae, and small animals.

Birds do not eat the bark of trees, leaves, or (pine) cones. Our processed, salted, sweetened and preserved food is unhealthy for them. That is why, if we want to feed birds, it is worth giving them some cereal grains or shredded vegetables, but not bread and rolls.

Observing

The students observe birds in their own neighborhood. They look for information on one selected species. What does this bird eat and what does its beak look like?

The students can make use of websites offering advice and suggestions on what to look for when birdwatching: https://www.allaboutbirds.org/building-skills-the-4-keys-to-bird-identification/