## 10331 Kingfisher Bird

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Create a striking centerpiece for your home or office with this home decor building set for adults. This LEGO® Icons Kingfisher Bird set (10331) makes a great gift for bird-lovers and an immersive project for new and accomplished LEGO builders.

The kingfisher model depicts the bird, known for its striking plumage and remarkable hunting abilities, emerging from water with a fish catch. The water setting includes buildable reeds and doubles as a display stand. Position the bird's head and claws to create your favorite pose before placing it on display for all to enjoy.

Kingfisher model building set – Take time out for a relaxing building experience with the LEGO Icons Kingfisher Bird building set for adults.

A creative building project – This set includes all you need to craft a LEGO interpretation of the majestic kingfisher with a fish catch, plus a water setting that doubles as a display stand.

Features and functions – The model kingfisher has a posable head and claws, and the water setting with buildable reeds doubles as a display stand.

Desk decor for the home and office – Add a splash of nature to any space with this LEGO Icons Kingfisher Bird display model.

Dimensions – This 834-piece model measures over 21 centimeters (8 inches) high, 31 centimeters (12 inches) wide and 17 centimeters (6.5 inches) deep.

The front of the box shows the model on a black background with a dark orange banner around the base of the box. The model comprises a kingfisher in a watery setting on a circular black base. The kingfisher bird is depicted as emerging from the water, its wings spread wide, feathers splayed. It carries a fish in its beak, evidently the result of a successful dive. The bird is primarily built using dark blue pieces, but its breast and some of the undersides of the wings are a warm dark orange. The water uses several colors and types of pieces to provide texture. Behind the kingfisher are some aquatic plants that resemble bulrushes built with pieces in bright, dark and olive green. The back of the box shows the model from behind, revealing its bright blue back. The side panels show the model from the side and the top, as though you were looking at an exhibit in a display case.

The set includes 834 pieces and is intended for ages 18+. The pieces are divided into 6 bags.

Welcome to text-based instructions from Bricks for the Blind. Before you start building, here are some terms we'll be using:

- In Front of/Front: towards you.
- Behind/Back: away from you.
- Up: towards the ceiling.
- Down: towards the floor.
- Stud: the bump on a LEGO brick. Example: A 2x1 brick has two studs on it.
- Vertically: with the longest side going from front to back
- Horizontally: with the longest side going from left to right.
- Upright: pointing up towards the ceiling.
- Standing upright: The piece is perpendicular to the ground, like a wall.
- Lying flat: The piece is parallel to the ground, like a piece of toast which fell off the table.
- That one/ppp: previously placed piece.
- Plate: piece with studs.
- Tile: smooth piece without studs (unless otherwise specified)
- A jumper plate is a 1x2 plate with a single stud on top, or a 1x3 plate with only two studs on top.
- "Anti-stud" is a term for the portion of a LEGO piece which accepts studs, like the bottom of a plate or brick.
- Symmetrically: a mirror image. Example: If you place a 2x1 brick with technic connector on the front wall at the right, connector to the front, and then place another such piece symmetrically on the back wall, at the right, the technic connector of the second piece should point to the back, since it will be placed symmetrically.

- Centered-vertically: even amount of space in front of and behind piece
- Centered-horizontally: even amount of space left and right of piece.
- Row: studs lined up horizontally (left to right/side to side).
- Column: studs lined up upright or vertically (top to bottom/back to front).

A note on LEGO Technic<sup>™</sup> part names. These parts are somewhat different from regular LEGO bricks. Here are some definitions in case the builder or helper is not familiar with LEGO Technic<sup>™</sup>.

Axles - An axle is a connector which has an X shaped cross-section. Because their cross section is not round, anything connected to an axle using an axle-hole will rotate with that axle. Axles are longer than they are wide, and the length of an axle corresponds with how many bricks long it is. Aka a 3L axle is three bricks long. Axles come in a variety of lengths, with a 2L axle being the shortest available. They may be combined with pins, or have circular stops on them. A stop prevents the axle from sliding through an axle-hole at a specific point on the axle.

Pins - A pin is a connector which has a circular cross section and a flanged notch out of one or both ends. This flanged notch allows them to click into bricks with a pin-hole. Pins come with and without friction ridges, which are small bumps on the pin which prevent them from rotating freely. For standard pins, black is a high friction pin, and gray is a low friction pin. A standard length pin is two brick lengths long, with a stop in the middle. This prevents a brick from being pushed from one side of the pin to the other. A 1L pin is one brick long and still retains the stop, however it also includes a hollow stud at the other end. A 3L pin is three bricks long, and only contains a stop at one side, allowing two bricks to be pushed onto the other side of the pin. Pins may also have one side which is an axle.

Technic brick - a brick which contains one or more holes which accept technic pins.

Lift-arms - A lift-arm is a basic structural element, similar to a brick or a plate, but usually without any studs. It is a beam with rounded ends and with holes in it, with the same spacing as the studs on a LEGO brick. lift-arms come in a variety of lengths, including a 1x1 lift-arm which looks like a cylinder. Thick lift-arms are as wide as a LEGO brick, and thin lift-arms are half as wide as a LEGO brick, but not the same thickness as a LEGO plate! The holes in a lift-arm arm may accept axles or pins. They also come in a variety of shapes, including tees, ells and triangles.

Gears - A gear is a functional element. They are typically discs with teeth on the outside, there are also worm gears which look like a spiraling cylinder! Gears connected by axles transmit or even transform rotational motion!

Axle and Pin Connectors - These elements are typically smaller than lift-arms and are used to connect some combination of pins or axles. They might have pins or axles, as well as axle or pin-holes. They have a lot of different angle combinations! The simplest just connects two axles or pins together in a straight line.

Bushes/Bushings - LEGO Technic™ uses bushes largely as spacers, but they also can reduce friction between rotating parts or can form useful elements such as handles. Bushes are typically light gray, generally cylindrical, and have an axle-hole running through the middle. They have a flange at the front and back to make them easier to pull on and off.

For builders with low vision, or a sighted building partner who may want to follow along with the printed visual instructions that come with each set, PDF versions are always online at [https://www.lego.com/enus/service/buildinginstructions/10331]: As low vision users may benefit from viewing the instructions on a personal device where they can zoom in on content and use assistive technologies to enhance the visuals.

To begin a successful build, it helps to sort the pieces into groups, bags or small containers. Have a sighted friend or family member do this in advance following the instructions below. You will see that the

pieces should be sorted into groups according to the building steps in the set. Doing this in advance makes locating the pieces easier. See below on how to sort the pieces to correspond to the steps in this set. Number the containers using letters A-Z, numbers or meaningful names. The parts will be collected into a small number of steps in the instructions. Example: Steps 1-3 means collect all the parts used in steps 1, 2 and 3, and put them in one container.

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Group 1 – steps 1-6 except for white parts
Group 2 – white parts for steps 1-6 plus steps 7-12
Group 3 – steps 13-19
Group 4 - steps 20-21
Bag 2 – 7 groups
Group 1 – steps 22-27
Group 2 - steps 28-31
Group 3 – steps 32-35
Group 4 – steps 36-38
Group 5 – steps 39-42
Group 6 – steps 43-46
Group 7 – steps 47-48
Bag 3 – 6 groups
Group 1 – steps 49-55 plus tan 2x2 corner plates for steps 57, 58
Group 2 – steps 56-61 plus two dark orange 1x2 round plates for step 63
Group 3 – steps 62-67
Group 4 – steps 68-73
Group 5 – steps 74-79
Group 6 - steps 80-81
Bag 4 – 6 groups
Group 1 – steps 82-88
Group 2 – steps 89-99
Group 3 – steps 100
Group 4 – steps 101-102
Group 5 - steps 103-110
Group 6 – steps 111-115
Bag 5 – 7 groups
Group 1 – steps 116-118
Group 2 – steps 119-125
Group 3 - steps 126-136
Group 4 – steps 137-138
Group 5 - steps 139
Group 6 - steps 140-147
Group 7 – steps 148-152
Bag 6 – 4 groups
Group 1 – steps 153-161
Group 2 – steps 162-167
Group 3 – steps 168-172
Group 4 - steps 173-175
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Bag 1 – 4 groups of bricks

Before we begin construction, the print instructions contain the following information about the set.

"The Common Kingfisher: The majestic common kingfisher is the perfect size to fit into your home décor. Its vibrant plumage and iridescent glow reflect colors from bright turquoise to dark royal blue against its warm orange chest. Wildlife photographers often catch it in this characteristic pose, emerging from the water with a dynamic splash, carrying its prey to a nearby branch. That's what we wanted to recreate in this model – with a support beam that helps create an illusion of flight and motion."

The next page gives some information on the bird, presented alongside some beautiful photographs. The first shows a kingfisher emerging from a river, carrying a writhing fish in its sharp beak. Droplets of water have been thrown into the air by its wings, which are poised to beat down against the water. The caption reads: "Species: Native mainly to Europe, the common kingfisher (Alcedo athis) is one of over a hundred kingfisher species found around the world."

The next photo shows a kingfisher perched on a branch, prey held firmly in its beak. It grips the branch with small claws. In this pose, the bird's warm orange breast is clearly visible, and its iridescent wings are tucked in. The caption reads: "Diet: The common kingfisher favors small fish and aquatic insects as its main diet."

The last picture depicts a kingfisher perched on the end of a mossy twig, its back to us and its head held to the side as if in contemplation. There are a variety of blues on show in its back feathers, ranging from a bright azure to a deep turquoise that is nearly green. The caption reads: "Size: Adults, both males and females, are typically 15 to 18 centimeters (5.9 to 7 inches) long and weigh 35 to 45 grams (1.2 to 1.58 ounces)." This makes the model considerably larger than the real thing!

The final page before the instructions features an introduction from the model designer. It reads: "Invite nature in: Being in and around natural elements spikes a strong sense of wellbeing in us. Interior design elements that connect us to nature have also been proven to help us feel happier, reduce our stress levels, enhance our creativity and clarity of thought – and even boost our productivity. As most of us spend the majority of our time indoors at work and at home, it's only natural if we feel the urge to invite the outdoors in with us. With the common kingfisher recreated here in its natural environment with splashing water and bulrushes (Typha), you can bring a refreshing slice of nature into your home. – Sven Franic, senior Lego model designer"

Let's get to building! We will start by building a sturdy base for the display.

Open bag 1, then open group 1. Open group 2 also, as group 2 contains the white pieces for steps 1 to 6.

- 1. Collect a 1x16 Technic brick and a blue 1x4 plate. Orient the brick horizontally and connect the plate horizontally to the middle 4 studs of the brick, 6 studs in from either end of the brick.
- 2. Locate two blue 1L axles with pins, two red 2L axles, a red axle connector, and a white axle connector.
- 2.1 Make a part: insert the axle end of a blue 1L axle with pin into one end of the white axle connector and insert a red 2L axle into the other end. Connect the part to the model by inserting the pin end of the part from the front into the pin hole seven in from the left of the brick.
- 2.2. Next, make a second part: insert the axle end of a 1L axle with pin into one end of the red axle connector, then insert a red 2L axle into the other end. Connect the part to the model by inserting the pin end of the part into the pin hole two to the right of the previously placed part.
- 3. Collect two blue 1L axles with pins, one dark tan 1x2 liftarm with axle hole, and two light grey 1x5 thin liftarms with axle holes. Make a part:

- 3.1 Orient a thin liftarm horizontally and insert a blue 1L axle into the left axle hole. The pin end of the blue 1L axle should point away from you.
- 3.2 Orient the dark tan 2L liftarm horizontally with the axle hole on the left. Connect the axle hole to the axle protruding from the part.
- 3.3 Take the other thin liftarm and orient it horizontally, then insert a blue 1L axle into the left axle hole so the pin points towards you. Finish the part by inserting the protruding end of the axle into the axle hole of the 2L liftarm.
- 3.4 Orient the part vertically and upright with the pins at the bottom and connect it to the model by inserting the rear pin into the pin hole between the parts from the last step.
- 4. Take a white 2x2 brick with two pins on opposite sides and orient it vertically. Insert the rear pin into the Technic brick's leftmost pin hole. Then, locate a brown 2x2 brick with two pins on opposite sides and connect it symmetrically to the right end of the Technic brick.
- 5. Set the model to one side for a moment while we construct a subassembly. Collect the following pieces: one dark grey 1L pin, two blue 1L axles with pins, two red 2L axles, two black 1x3 thin liftarms with axle holes, one red Technic brick with hole and dual liftarm extensions, and a black 1x9 bent liftarm. 5.1 Take the red Technic brick with hole and dual liftarm extensions and orient it with the liftarms to the left. Insert a red 2L axle into the front liftarm, but do not push it through.
- 5.2 Collect the black bent liftarm and orient it horizontally with the bend to the left. Slide the right end of the bent liftarm between the liftarm extensions and align the axle holes. Push the axle all the way through to lock the liftarm in place.
- 5.3 Make a part: take a black 1x3 thin liftarm and orient it horizontally. Insert a blue 1L axle into the left axle hole and reorient the part so the pin points away from you. Then insert a red 2L axle into the right axle hole so that it protrudes from the part toward you. Attach the part to the bent portion of the liftarm, inserting the blue axle into the top axle hole and the red axle into the pin hole two holes to the right. Find a black 1x3 thin liftarm and orient it so that it is parallel with the bent portion of the liftarm. Insert the protruding section of the red axle into the right end of the thin liftarm.
- 5.4 Insert a blue 1L axle into the axle hole at the left end of the bent liftarm. Then insert a dark grey 1L pin into the pin hole to the right of the front thin liftarm. The stud on the end of the 1L pin should face you. 5.5 Rotate the subassembly anticlockwise so that the bent section of the subassembly lies flat and the long section of the subassembly angles up. Connect the subassembly to the model by inserting the rear blue pin at the left end of the subassembly into the hole six holes from the right end of the Technic brick.
- 6. There are now two liftarm subassemblies which are able to swing from side to side. In this step, we will lock them together at an angle. This is a fiddly step utilizing an unusual technique, so be careful! Start by taking a red 2L axle and inserting it into the axle hole at the top of the left liftarm assembly, but do not push it through. Next, swing the right liftarm assembly over to the left so that it sits between the thin liftarms of the left assembly. Swing the left liftarm assembly to the right so that the front thin liftarm presses on the stud next to the bend of the right liftarm. Maintain this contact, and carefully swing the assemblies together until the axle holes at the top of the left assembly align with the pinhole to the left of the stud on the right assembly. When the holes are aligned, push the red 2L pin all the way through, locking the assemblies together at an angle.
- 7. Make a part: take a light grey 1x16 Technic brick and a blue 1x4 plate and orient them horizontally. Place the plate on top of the brick, 6 studs in from the left. Attach the part to the model by aligning the pin holes at each end of the brick with the pins at each end of the model, then push the assembly into place.
- 8. Collect a tan 4x6 plate and a brown 2x3 brick and orient the parts horizontally. Connect the brick to the plate one row and one column in from the front left corner of the plate. Place the right end of the model on top of the plate so that the brick sits between the Technic bricks and to the immediate left of the brown 2x2 brick with pins.

- 9. Get another tan 4x6 plate and a white 1x2 brick with log profile. Orient the plate horizontally and connect the brick vertically to the rightmost column of studs, one row in from the front edge. Place the main model on top of the part so that the left edges of the model and the plate align.
- 10. Find a blue 2x5 bracket and two white 2x2 plates. Orient the bracket horizontally with the lower 2x2 of studs to the left. Stack the 2x2 plates on top of one another, then connect them onto the bracket's 2x2 of studs. Add the part to the model by slotting it in to the recessed horizontal 2x3 of studs three columns in from the left end of the model.
- 11. Take two dark grey 2x16 plates and lay them vertically side by side to form a 4x16 of studs. Connect them beneath the main model in the middle, between the two tan 4x6 plates placed in previous steps, so that an area of 4x6 studs extends in front of and behind the model.
- 12. Locate two red 2x4 bricks. Place the first brick horizontally across the front two rows of the plates placed in the previous step, then connect the second brick symmetrically to the back two rows.

Put aside the main model while we create two identical subassemblies using the pieces in group 3. Steps 13 through 18 should be completed twice.

- 13. Take one light grey 4x8 plate and two red 2x2 plates with two side studs. Orient the 2x8 plate horizontally and orient the red plates with the side studs facing you. Connect the back row of a red plate under the left two studs of the front row of the 4x8 plate so the left edges align. Connect the second red plate symmetrically to the right end of the plate.
- 14. Flip the part over, keeping the side studs facing you. Collect two tan 2x3 plates and two orange 1x2 plates. Place a 1x2 plate horizontally behind the left 2x2 modified plate, then place a tan 2x3 plate horizontally behind the 1x2 plate so that the left column of studs overhangs to the left. Place the other pieces symmetrically on the right side of the part.
- 15. Flip the part over again. Collect two blue 2x5 brackets and two red 2x2 modified plates with two side studs. Make two identical parts: orient a modified plate with the side studs facing you and orient a blue bracket vertically with the lower 2x2 of studs in front. Connect the front row of the bracket to the back row of the modified plate. Place the completed parts with the back right column of lower bracket studs on the exposed studs of the 2x3 tan plates placed in the previous step so that the front row of each part is at the same height as the front row of the light grey 4x8 plate.
- 16. Find two more red 2x2 modified plates with two side studs. Orient the first with its side studs facing left and place its right column of studs under the left blue bracket so the modified plate's rear edge aligns with the back of the lower part of the bracket. Place the other modified plate symmetrically on the right side of the subassembly.
- 17. Gather four black 1x2 bricks with two side studs. Place the first two vertically and symmetrically on the exposed columns of the red modified plates placed in the last step with the side studs facing out. Orient the remaining bricks horizontally with the side studs facing forward, then place them symmetrically on the red modified plates at the front of the subassembly.
- 18. Locate two black 1x1 bricks with one side stud and two black 1x2 bricks with two side studs. Take a 1x1 brick and orient it with the side stud facing you. Place it one row behind and one column to the left of the front left black brick with two side studs. Immediately to the left of the 1x1 brick, place a 1x2 brick with side studs vertically with the side studs facing left. Place the remaining pieces symmetrically.

- 19. You have completed the subassemblies! Connect them to the main model by slotting them into the spaces between the Technic bricks and 2x4 bricks at the front and back of the model. The brackets on the longest side of each subassembly connect to the central block of the model.
- 20. Open the fourth group of bricks. Gather four black 2x2 plates and eight black 1x2 brackets with 2x2 side studs, then make four of the following part:
- 20.1. Take a bracket and orient it horizontally with the side studs facing you.
- 20.2. Next, place a 2x2 plate over the bracket's right column of side studs so that the plate overhangs to the right.
- 20.3. Finally, get another bracket, orient it horizontally with the side studs facing you, and connect the left column of side studs under the plate's overhang.
- 20.4. Place the first part on the front row of the horizontal 2x4 of studs in the middle front of the base, then connect the second symmetrically to the rear of the model. Place the third part on the leftmost column of the base, then put the final part symmetrically on the rightmost column.
- 21. Collect sixteen black 2x2 plates and eight black 2x4 curved slope. Use them to make eight of the following part:
- 21.1. Stack two black plates.
- 21.2. Then, take a 2x4 curved slope and orient it horizontally sloping down to the left. Connect the left end of the slope to the stacked plates so that the slope overhangs to the right by two studs.
- 21.3. Take one part and orient it on its side with the top of the curved slope facing you and the stacked plates on the left. Connect it to the left two columns of side studs of the part from the previous step on the front of the build the stacked plates should connect to a 2x2 of side studs inset to the left. Take another part and connect it symmetrically to the right of the first. Then, place the remaining parts symmetrically around the model. The base is beginning to take on a circular shape!

You have reached the end of the first bag! The base is not yet complete, but now has the beginnings of a sleek black border which will frame the scene.

Open bag 2, then open group 1.

You will begin by levelling off the base, filling in the gaps with blue pieces to suggest water. Then, the border will be completed before the base is decorated to provide a setting for the kingfisher.

- 22. Locate two blue 2x2 corner plates, two blue 1x2 plates and four blue 1x4 plates.
- 22.1. Find the leftmost vertical 1x4 of studs. One stud to the right, there should be an indented 1x4 column of studs. Place a 1x4 plate vertically into the indent, then place another symmetrically on the model's right. Next, put a 1x4 plate horizontally one row behind the frontmost row of studs in the middle of the model, then put the last 1x4 plate symmetrically at the model's rear.
- 22.2. To the left and one row in front of the Technic liftarms in the middle of the model, locate a 1x2 horizontal region of recessed studs. Place a blue 1x2 plate horizontally in the gap, then place a second three rows behind it.
- 22.3. Take a 2x2 corner plate and orient it with the corner in the lower right so that it forms the Braille letter J. Locate the region of recessed studs to the right of the Technic liftarms and place the corner plate with its front row parallel with the studs to the left. Connect the second corner plate symmetrically.
- 23. Collect two tan 1x1 round plates with bar holes, four dark orange 1x2 round plates, and one dark blue 1x2 brick. Make a part:
- 23.1. Take a 1x2 round plate and orient it horizontally. Place a 1x1 round plate under the right stud.
- 23.2. Connect a 1x2 plate horizontally under the left stud of the part.
- 23.3. Orient the 1x2 brick vertically and put it on the left stud of the lower 1x2 round plate so that the brick overhangs to the rear of the part.

- 23.4. Orient another 1x2 round plate horizontally and connect its right stud under the brick's overhang.
- 23.5. Orient the last 1x2 round plate vertically and place its back stud on the exposed stud of the last round plate. Put the remaining 1x1 round plate under the 1x2 plate's front stud.
- 23.6. Connect the part to the model by placing it in front and to the right of the central block. The right end of the part should slot into the gap in front of the vertical 2x6 of studs to the right of the Technic liftarms.
- 24. Gather six blue 1x4 bricks and orient them all horizontally. Locate the front row of studs of the base and navigate back two rows to find a sunken area. The front row of the sunken region is eight studs long use two 1x4 bricks to fill the row. Place the next 1x4 brick one row back at the left end, so the left end of the brick lies against a brick with side stud. Place the remaining three bricks symmetrically at the rear of the display.
- 25. Find five blue 1x6 bricks and orient them horizontally. Place one to the right of the frontmost 1x4 brick at the model's rear, completing the row. Then fill the next row using two more bricks placed end to end. Next, locate the frontmost incomplete row and insert another brick to fill the gap to the right of the 1x4 brick. Place the last brick two rows behind it in the convenient horizontal 1x6 space.
- 26. Take four blue 1x4 bricks and orient them horizontally. Place the first two one row in front of the last piece placed, then place the other two six rows behind them. The base is now filled in with blue, and all but a small section should be at the same level.
- 27. We can now complete the black border that frames the scene. Collect eight black 1x2 sloped tiles and eight black 1x2 sloped bricks. Make eight of the following part: orient a sloped brick vertically with the slope facing left, then place a sloped tile vertically on the studs with the slope facing left. Take one of these parts and orient it on its side with the bottom facing away from you and the slope facing left. Connect it to the side studs to the left of the curved slopes on the front of the base. Connect a second part symmetrically to the side studs to the right of the curved slopes. Place the remaining parts symmetrically on each side of the model.

You have now completed the foundation for the rest of the model! Over the next several steps, we will layer transparent and translucent pieces on top of the blue fill to create a more realistic water texture.

- 28. Open the next group of pieces. Locate a transparent clear 1x2 plate and two transparent clear 1x1 sloped tiles. Place the plate vertically to the left of the liftarms in the center of the model. Orient the 1x1 sloped tiles with the slopes facing left, then place them to the right of the liftarms in a column.
- 29. Now gather eighteen transparent clear 1x2 plates and two transparent blue 1x1 plates. Orient the 1x2 plates horizontally.
- 29.1. To the right of the sloped tiles placed in the previous step, place four 1x2 plates to form a centered column of parallel 1x2 plates.
- 29.2. Place a further four plates to the right to form a second column parallel to the first.
- 29.3. In front of the sloped tiles, place another 1x2 plate, then put two more to the left of the first. Place another three symmetrically behind the sloped tiles.
- 29.4. Connect the remaining four plates in a column to the left of the previously placed parts.
- 29.5. Place a 1x1 plate two rows in front and one column to the right of the sloped tiles, then place the other 1x1 plate three studs to the left of the first.
- 30. Find eight more transparent clear 1x2 plates and orient them horizontally.
- 30.1. Place two in a row to the left of the last 1x1 plate placed in the previous step, then put a third four studs to the right of the 1x1 plate.
- 30.2. Put another 1x2 plate five rows behind the last part placed. Then, use the remaining four plates to extend the row to the left.

- 31. Locate four transparent blue 1x1 plates, two transparent clear 1x1 sloped tiles, and three transparent clear 1x2 plates.
- 31.1. Make two of the following part: Stack a 1x1 sloped tile on top of a 1x1 plate and orient it with the slope facing right. Place one part one stud to the right of the left end of the back row of plates placed in the previous step, then put the other five studs in front of it in the same column.
- 31.2. Three studs to the right of the previously placed part, put a 1x1 plate. Connect a 1x2 plate horizontally behind it so its left stud is in line with the 1x1 plate. Then place another 1x2 plate and the remaining 1x1 plate symmetrically behind the liftarms.
- 31.3. Connect a 1x2 plate vertically to the right of the sloped tiles to the right of the liftarms.
- 32. Collect the next group of parts and retrieve four transparent clear 2x2 inverted corner arches. These pieces have a 2x2 footprint with a single stud in one corner and curve upward to a point at the opposite corner. First used to represent Japanese architecture in the Himeji Castle and Tranquil Garden sets, these parts make their first appearance in transparent clear here, where they have the effect of making the water seem disturbed, as if by something bursting out. Orient the first two pieces with the stud in the upper right. Place the right column of the first in front of the last 1x2 plate placed in the previous step, then put the second in the 2x2 of studs three studs to the left. Connect the other two pieces symmetrically behind the liftarms.
- 33. Collect a further two transparent clear 2x2 inverted corner arches. Orient the first with the stud in the upper right, then place the right column to the left of the liftarms behind the sloped tile. Orient the second piece with the stud in the lower right and put it directly behind the first corner arch.
- 34. Locate three transparent clear 1x2 plates and two transparent clear 2x2 inverted corner arches.
- 34.1. Make a part: orient a 1x2 plate vertically, then connect a second plate horizontally to the back stud so that it overhangs to the left. Place the last plate horizontally across the front stud so that the two upper plates form a 2x2 of studs.
- 34.2. Connect the part's left column to the studs of the arches placed in the previous step.
- 34.3. Orient one of the arches with its stud in the top right and place it in front of and two studs to the right of the previously placed part. Put the second symmetrically behind the first.
- 35. Gather seven transparent clear 1x2 plates and four transparent blue 1x1 plates.
- 35.1. Locate the column of raised studs to the left of the inverted corner arches placed in the previous step. Place a 1x1 plate in front of the column, then place another at the other end of the column.
- 35.2. Place a 1x2 plate horizontally one stud in front and to the right of the front 1x1 plate. Place a second 1x2 plate horizontally to the right, then a 1x1 plate, then move five studs to the right and place another 1x1 plate.
- 35.3. Seven rows behind the 1x1 plate, begin a new row of plates by placing another 1x2 plate horizontally. Its right edge should be parallel with the edge of the plate in front of it. Lay four more plates horizontally along the row.
- 36. Open the next group of pieces and collect twenty-two satin transparent blue tiles. Satin pieces shimmer softly like the fabric from which it takes its name. The satin transparent blue tiles are perfect for capturing the sparkle of water in sunlight. Orient all of the pieces vertically, then locate the column of raised studs to the left of the inverted corner arches.
- 36.1. Place two tiles behind the column and two in front of the column.
- 36.2. Move one stud left and one in to the next column. Place six tiles in a column, covering all the exposed studs.
- 36.3. Fill the next column to the left with another six placed tiles.
- 36.4. The next column to the left has only eight exposed studs. Cover them with four more tiles.
- 36.5. Lastly, place the remaining two tiles on the 1x4 column of studs to the left of the previous column.

The tiles, plates, slopes and corner arches placed over the last several steps have created a dynamic, evocative watery base. Satin transparent light blue tiles at the left side of the base represent still, undisturbed water, while the studs of the plates capture the appearance of water that is being disturbed by the impact of many tiny droplets. The slopes and inverted corner arches combine to suggest that the water around the liftarms is being forced upwards, carried skyward by the kingfisher as it erupts from the water. The blue base refracts through the transparent plates, slopes and arches so that they too appear blue.

- 37. Find four transparent clear 2x2 inverted corner arches. Place the first to the immediate left of the leftmost inverted corner arch in the middle of the build with its stud in the back right corner. Connect a second arch one column to the right and in front of the first arch, again with the stud in the back right corner. The stud should sit to the right of a sloped tile. Place the other two corner arches symmetrically to the rear of the model.
- 38. Take six transparent clear 1x1 sloped tiles. Locate the leftmost rear inverted corner arch and place a slope on its stud with the slope facing you. Place the next slope in front of the last with the slope facing right. Locate the corner arch in front of the last and put another slope on the stud, again with the slope facing right. Place another symmetrically on the back arch. Next, locate the corner arch directly in front of the liftarms and put a slope on the arch's stud facing right. Put the final slope on the corner arch directly behind the liftarms with the slope facing right.
- 39. Open the next group of pieces and collect a transparent clear 1x2 plate, two transparent clear 1x1 sloped tiles, and two transparent clear 2x2 inverted corner arches. Use them to make a part: 39.1. Orient the 1x2 plate vertically.
- 39.2. Place a slope on the plate's back stud facing right and another on the front stud facing back.
- 39.3. Orient a corner arch with the stud in the front right. Connect it under the back of the part. Orient the other corner arch with the stud in the back right and connect it under the front of the part.
- 39.4. Add the part to the 2x2 of studs directly to the left of the liftarms.
- 40. Gather eight transparent clear 1x2 plates and two transparent blue 1x1 plates. Navigate to the row of studs in front of the frontmost corner arch, three studs in from the front of the model. Beginning to the right of the tiles, place the following parts horizontally in a line from left to right: a 1x1 plate, then four 1x2 plates. Place the other parts symmetrically behind the liftarms.
- 41. Locate twelve transparent light blue 1x1 plates and six satin transparent light blue 1x2 tiles. Find the row in front of the parts placed in the last step, then place the following parts vertically moving from left to right: one 1x2 tile, four 1x1 plates, two 1x2 tiles, then two more 1x1 plates. Place the other parts symmetrically at the back of the model.
- 42. Take eight more satin transparent light blue 1x2 tiles. Place the first four tiles vertically in the 2x4 of studs at the front middle of the build, then place the rest symmetrically at the back of the build.
- 43. Open the next group of parts and collect five transparent clear 1x1 sloped tiles. Rotate the model 90 degrees clockwise so that the liftarm in the middle of the base slants away from you. Locate the inverted corner arches closest to you and place sloped tiles on the studs of the arches so that the slopes face away. Behind the left arch, place another sloped tile with the slope facing you. On the other side of the liftarm in the same row, place the two remaining slopes side by side with the slopes facing you.
- 44. Gather twelve more transparent clear 1x1 sloped tiles. Orient them all so the slopes face you. We will use them to give the surface of the water a choppy texture

- 44.1. Navigate three rows back from the front of the build and find the stud to the right of the hole at the base's left. Place a slope on the stud, then another two studs to the right, then another two more studs to the right.
- 44.2. Move one row forward and a column to the right and place the next slope here. Then, put another two studs to the left, then another two more studs to the left.
- 44.3. Move forward another row and place a slope on the stud to the right, then another two more studs to the right.
- 44.4. Locate the column of studs to the right of the slopes placed in the previous steps. Place the next slope three studs from the front, then place the remaining tiles in a column moving backward, leaving an empty stud between each pair of slopes.
- 45. Take five more transparent clear 1x1 sloped tiles.
- 45.1. Orient three of the tiles with the slopes facing you. Locate the column of studs to the right of the previously placed parts. Place the first slope on the third stud from the front, then place the others in a column behind it, leaving a stud between each pair of slopes.
- 45.2. Orient the remaining two pieces with the slopes facing left. Locate the vertical 1x4 of studs to the right of the previously placed parts and place the slopes on the back stud and the second stud from the front of the column.
- 46. Find six more transparent clear 1x1 sloped tiles and four bright green 3L bars. Turn your attention to the area to the left side of the build.
- 46.1. Take two of the sloped tiles and orient them with the slopes facing you. Place the first at the rear of the column directly behind the leftmost inverted corner arche, then place the second two studs in front.
- 46.2. Orient the next two sloped tiles so the slopes face you. Place one on the back stud of the column to the left of the previously placed parts, then put the other two studs in front.
- 46.3. Take the final two slopes and orient them with the slopes facing right. Place the first on the back stud of the column to the left of the previously placed parts, then put the second two studs in front. This is the very last transparent clear 1x1 sloped tile you need to place in the entire build hooray!
- 46.4. Two studs in front of the slopes, you should find a horizontal 1x2 gap in the base. At the bottom of the gap are two holes in the center of each stud. Insert a bar vertically into each hole.
- 46.5. Locate the 1x2 vertical gap in front of the horizontal gap. Take the two remaining bars and insert them vertically into the holes in each stud.

We will take a moment to begin building some plants to add more visual interest to the scene.

- 47. Open the next bag of parts and collect two black 2L pins, two red 1L pins and four olive green 2L round pin connectors.
- 47.1. Make two identical parts: insert a 2L pin into a pin connector, then attach another pin connector. Then, insert a 1L pin into the open end of the second connector.
- 47.2. Orient the parts vertically with the stud at the bottom. Slide one onto the right bar rising from the horizontal gap, then slide the other onto the rear bar rising from the vertical gap.
- 48. Gather two red 1L pins, six black 2L pins and eight olive green 2L round pin connectors.
- 48.1. Make two of the following part: Orient a pin connector horizontally and insert a 2L pin into the left end. Add a second connector to the left end, then insert another pin at the left. Add a third connector, then another pin. Add one final connector, then insert a red 1L pin into the left end.
- 48.2. Orient the parts vertically with the red studs at the bottom. Slide the parts onto the remaining bars sticking out of the gaps in the base.

You have now reached the end of bag two – well done! The base is now complete but for some plants that will be added later, meaning you can now start on the centerpiece: the kingfisher bird itself.

Open bag 3. This bag contains the parts to build the body of the kingfisher. Open group 1. Set the base to the side for now as we start work on the kingfisher's torso.

- 49. Find a black 1x2 liftarm with bar and two blue 3L pins. Orient the liftarm vertically with the holes along the side and with the bar at the back pointing up. Orient the pins horizontally with the stop rings to the right. (The stop rings are thicker rings on the parts that prevent a liftarm from moving past the ring.) Insert the pins into the liftarm's holes from the left. The pins will protrude to the left but not to the right.
- 50. Take two black 1x6 thin liftarms and orient them vertically. Slide the back two holes of the first liftarm onto the pins, followed by the second.
- 51. Collect two more blue 3L pins and orient them horizontally with the stop rings to the right. Insert them into the front two holes of the thin liftarms from the right so that the pins stick out on either side of the part.
- 52. Get three black 1x2 liftarms with bars. Orient the first piece vertically with the bar at the rear pointing up, just like the one already attached to the part, and connect it to the back left pair of pins. Orient the other two liftarms vertically with the bars at the front pointing up and connect them to the pins at the front on either side of the liftarms. The result should be symmetrical front to back and side to side.
- 53. Gather an orange 1x2 plate, a white 2x2 plate, two black 2L pins, two blue 3L pins, three black 1x2 Technic bricks with two pin holes, and two dark grey 1x2 plates with pin hole on top. Use them to make a part:
- 53.1. Orient a black Technic brick horizontally and insert a 3L pin into each hole so that the pins protrude front and back.
- 53.2. Take the other Technic bricks and orient them horizontally. Connect the right pin hole of one to the front left pin of the part, then connect the left pin hole of the other to the front right pin.
- 53.3. Place the white 2x2 plate on top of the Technic bricks, locking them together. There should be a free stud on either side at the front where the bricks poke out. Then take two black 2L pins and insert them into the remaining pin holes so they jut forward.
- 53.4. Set the part aside for a moment. Take the orange 1x2 plate and orient it horizontally. Take a 1x2 plate with pin hole on top and orient it horizontally with the pin hole to the left, then connect the stud under the left side of the 1x2 plate. Connect the second plate with pin hole symmetrically to the right of the plate. Finally, add it to the part by lining up the pin holes with the pins on the front of the part and pushing them together.
- 53.5. Orient the part so the blue pins are on the left, then connect it to the model by inserting the pins into the pin holes in the middle of the model from the right.
- 54. Find two dark grey 4x4 plates and two white 2x2 curved inverted slopes. Make a part:
- 54.1. Take an inverted slope and orient it with the slope on the right. Connect it to the back two studs on the right of a plate.
- 54.2. Place the other inverted slope in front of the first. Put the second plate to the left of the inverted slopes so that it overhangs by one column to the left of the part but does not overhang at the front or back
- 54.3. Connect the part to the underside of the model so that the left side of the part aligns with the left edge of the model.
- 55. Collect an orange 1x2 plate, three dark orange 1x2 round plates, and a red 1x2 modified Technic brick with pin hole and 1x2 plate. Use these pieces to construct the following part:
- 55.1. Orient the 1x2 plate vertically and connect a round 1x2 plate horizontally on top of the back stud so the round plate overhangs to the left.
- 55.2. Connect another round plate horizontally to the front stud, again overhanging to the left.
- 55.3. Place the final round plate vertically under the overhanging studs of the other two round plates.

- 55.4. Orient the modified Technic brick with the pin hole facing left and place the left column of the Technic brick on the right column of the part.
- 55.5. Connect the part to the model by slotting it into the 1x2 vertical gap in the model's left side so that the middle column of the part connects to the studs at the bottom of the gap. The plate section of the modified Technic brick should rest on top of the thin liftarms in the middle of the model and sit next to a white 2x2 plate to form a horizontal 2x3 of studs.
- 56. The only pieces from group one remaining are four tan 2x2 corner plates. Set these aside and open the next group of bricks. Find two dark blue 1x2 plates and a dark grey 1x6 inverted double slope with 1x4 cutout. Orient the 1x6 inverted double slope vertically and place a 1x2 plate horizontally on the front and back studs of the cutout so that the plates overhang right. Place the assembly on the model's rightmost column.
- 57. Gather the following: a black 1x6 plate, a dark orange 1x2 round plate, a dark blue 1x1 tile, a dark blue 1x3 plate, a dark blue 2x2 corner plate, and a dark blue 1x2 brick with 1x2 side studs. Also locate two tan 2x2 corner plates from the previous group of bricks. Use them to make the following part:
- 57.1. Orient the dark blue corner plate so its studs form the Braille letter H. Place the 1x3 plate horizontally on top of the front row, so it overhangs one stud to the right.
- 57.2. Put the 1x1 tile on the back stud of the corner plate.
- 57.3. Orient the 1x6 plate horizontally and place its left stud under the overhang.
- 57.4. Orient a tan corner plate so its studs form the Braille letter J. Connect the back stud to the right of the 1x3 plate. Next, take a second tan corner plate and orient it so its studs form the Braille letter F. Place it to the right of the last piece so it overhangs in front. Then place a 1x2 round plate vertically to the right of the corner plate so it overhangs behind the part.
- 57.5. Orient the 1x2 brick with 1x2 side studs vertically with the side studs to the left. Connect it under the left end of the part.
- 57.6. Add the part to the model by connecting the front horizontal 1x3 of studs to the right of the modified Technic brick. The overhanging tan corner plates should sit to the right of the brick part of the modified brick. The brick with side studs should align with the left end of the model, and the right end should align with the plate at the right end.
- 58. Now we will make another part, the mirror image of the last part. Find the following pieces: a black 1x6 plate, a dark orange 1x2 round plate, a dark blue 1x1 tile, a dark blue 1x3 plate, a dark blue 2x2 corner tile, and a dark blue 1x2 brick with 1x2 side studs, plus two tan 2x2 corner plates from the previous group of pieces. Assemble them into a part as follows:
- 58.1. Orient the dark blue corner plate so the studs form the Braille letter F. Place the 1x3 plate on the back row so it overhangs to the right by one stud.
- 58.2. Place the 1x1 tile on the front stud of the corner plate.
- 58.3. Connect the 1x6 plate horizontally under the 1x3 plate's overhang.
- 58.4. Orient a tan corner plate so it forms the Braille letter D. Place the front stud to the right of the 1x3 plate so the back row overhangs behind the part. Next, orient a second tan corner plate so its studs form the Braille letter H and place it to the right of the other corner plate so that the back stud overhangs behind the part. Then place the 1x2 round plate vertically to the right so it overhangs the front of the part. 58.5. Orient the 1x2 brick with 1x2 side studs vertically with the studs facing left and connect it under the left end of the part.
- 58.6. Add the part to the model in a similar way to the last part by slotting it into place in front of the red modified Technic brick. The ends of the part should align with the ends of the model and the overhang of the tan corner bricks should lie against the front edges of the other tan corner plates.
- 59. Take a light blue 1x2 bracket, a dark blue 1x1 brick with recessed side stud, a dark blue 1x1 bracket, a dark blue 1x2 plate, and a 1x4 curved slope. Use them to make a part:

- 59.1. Orient the 1x4 curved slope horizontally with the slope curving down to the right, then connect the 1x2 plate horizontally under the right end of the slope with no overhang.
- 59.2. Flip the part on its side so that the anti-studs face you. Connect the side stud of the 1x1 bracket to the left end of the part with the top stud facing up, then connect the side stud of the 1x1 brick with recessed stud to the right also with its top stud facing up.
- 59.3. Take the light blue 1x2 bracket and orient it horizontally with the top studs facing away from you and the side studs facing down. Place it one stud in from the end of the part so the left stud connects to the back of the 1x1 brick.
- 59.4. Add the part to the model by connecting the left end of the part to the right end of the model, to the right of the back round 1x2 plate.
- 60. Collect another light blue 1x2 bracket, dark blue 1x1 brick with recessed stud, dark blue 1x1 bracket, dark blue 1x2 plate, and 1x4 curved slope. Make another part, the mirror image of the last:
- 60.1. Orient the curved slope horizontally curving down to the left and connect the 1x2 plate horizontally under the left end of the slope with no overhang.
- 60.2. Flip the part on its side so that the anti-studs face you. Then, connect the side stud of the 1x1 bracket to the right end of the part. To the left, connect the side stud of the 1x1 brick with recessed side stud
- 60.3. Take the 1x2 bracket and orient it horizontally with the top studs facing away from you and the side studs facing down. Place it one stud in from the end of the part so the right stud connects to the back of the 1x1 brick.
- 60.4. Rotate the part so that the curved slope faces you, then attach it to the model by connecting the underside of the 1x1 bracket to the front rightmost stud of the model. Its position should be the mirror of the part placed in the previous step.
- 61. Flip the model over and rotate it so the parts placed in the last two steps are nearest you. Take two dark blue 2x2 corner plates and flip them over so their studs face down. Orient the first so it feels like the Braille letter F and connect its left column in front and to the left of the white curved inverted slopes model's middle. Orient the second corner plate so that it forms the Braille letter D and connect it symmetrically to the right of the previous piece.

Note that there are two dark orange plates left over from the last group of pieces. Set these aside and use them in conjunction with the parts in the next group, which you should collect now.

- 62. Find two black 1x2 round plates, one orange 1x2 plate, and two dark blue hexagonal armor plates. The armor plates have two short bars sticking out of the back of the piece.
- 62.1. Place the 1x2 plate horizontally on the back row of the 2x2 of studs in the front middle of the model.
- 62.2. Next, make two of the following part: Orient a 1x2 round plate vertically and an armor plate vertically with the bars at the back. Insert the rear bar into the front stud of the round plate.
- 62.3. Attach the back stud of each part to the studs in front of the 1x2 plate placed earlier. You will need to swivel the parts so that they can sit beside one another, and in so doing you will create a subtly fanned tail.
- 63. Gather the following pieces: two black 1x3 round plates, two dark orange 1x2 round plates, one dark azure 1x6 plate, two dark azure 1x3 plates, four white 2L bars with stop ring, two dark azure 1x4 curved slopes, and one dark azure 10x6 curved windscreen element. We will use these parts to construct the bird's back:
- 63.1. Take the 1x6 plate and orient it vertically.
- 63.2. Orient the 1x3 plates horizontally and connect the middle studs under each end of the 1x6 plate.
- 63.3. Orient the 1x4 curved slopes horizontally sloping down to the right. Attach the left end of each slope to the right stud of each 1x3 plate.

- 63.4. Put a 1x3 round plate on top of a 1x2 round plate and orient the part vertically with the overhang in the back. Connect the overhang to the back left stud. Put the other 1x3 round plate on top of the remaining 1x2 round plate and orient the part vertically with the overhang to the front, then connect the overhang to the front left stud.
- 63.5. Take the 10x6 curved windscreen and orient it horizontally curving down to the right. Connect it to the part so that the left end of the piece aligns with the left end of the part. The curved slopes on the part should lie flush against the underside of the windscreen.
- 63.6. Flip the part over along its long axis. Insert the four white 2L bars into the holes in the vertical 1x4 of round plates at the left end of the part, then flip the part back over.
- 63.7. Retrieve the main model and rotate it so the tail feathers point to the right. Attach the part to the model by connecting the right end of the part to the 2x2 of studs at the right end of the model and inserting the middle two bars at the left end of the part into the round plate in the middle of the left end of the model.
- 64. Flip the model along the long axis so that the part previously placed is now under the model. Collect four white 2x2 modified plates with 1x2 side studs. Orient the first two with the side studs facing forward. Locate the 1x1 tile on the front left corner of the model. Place the first modified plate behind the 1x1 tile with the left side of the piece aligned with the left side of the model, then place the second plate to the right of the first. Connect the other two pieces symmetrically so that all four parts come together to form a square with a recessed horizontal 2x4 of studs in the middle.
- 65. Take a red 2x3 plate and two light grey 1x2 sloped grille tiles. Place the 2x3 plate horizontally in the center 2x4 of studs formed by the modified plates, with its left end flush with the end of the model. To the right of the raised sections of the modified plates, place the sloped grille tiles horizontally and sloping down to the right. There should be two studs of vertical space separating the slopes.
- 66. Find a black 2x4 plate and connect it vertically at the left end of the model on top of the left modified plates and 2x3 plate.
- 67. Locate a black number 4 axle connector and insert a blue 1L axle with pin into one end. Now reorient the model to be upright and vertical with the tail feathers at the bottom and the curved windscreen at the rear, so the studded surface faces you. Find the gap in the middle of what is now the top of the model. There is a Technic pin hole in the bottom of the hole. Insert the pin of the part into the hole and rotate the part so that the protruding end points toward the back right, like a compass needle pointing northeast. This angled Technic connector will be where the head is attached toward the end of the build process.

Set the body of the kingfisher aside as we create the bird's collar.

- 68. Open the next group of bricks. Take a dark azure 1x4 plate and orient it horizontally.
- 69. Locate a dark azure 1x2 wedge with right cutout and a dark azure 1x2 wedge with left cutout. To tell them apart, orient them vertically with the short flat edge at the front and feel the pointed end if the cutout is on the right, then it is the right wedge, otherwise it is the left wedge. Place the right wedge on the left end of the plate horizontally, then place the left wedge horizontally on the right end of the plate. The cutouts should lie in the back of the part.
- 70. Find a dark azure 2x2 tile and connect it between the wedges so it overhangs in front.
- 71. Get a black 4x4 plate with 2x2 open center and connect the middle back two studs under the tile's overhang.

- 72. Make a part: take a dark blue 1x3 plate and orient it vertically, then place a dark blue 2x2 tile on the back two studs so the tile overhangs left. Connect the tile's overhang to the right side of the part, in front of the wedge.
- 73. Construct another part: orient another dark blue 1x3 plate vertically, then take a dark blue 2x2 double sloped brick and orient it with the stud in the front right corner. Place the double sloped brick on the back two studs of the plate so the brick overhangs right. Connect the brick's overhang to the left side of the part in front of the wedge.
- 74. Open the next group of pieces and collect a dark blue 1x2 right wedge and a dark blue 1x2 left wedge. Orient the pieces vertically with the sharp ends pointing toward you, then connect the right wedge to the left stud in front of the double-sloped brick. Place the left wedge to the right stud in front of the dark blue 2x2 tile on the right side of the model.
- 75. Gather three dark blue 1x1 sloped tiles. Place the first on top of the double sloped brick with the sloped face away from you. Orient the other two with the slopes facing forward and place them on the studs either side of the 2x2 hole in the middle of the part. There should be a horizontal 1x4 of studs in front of the slopes.
- 76. Retrieve the kingfisher's body and ensure it is oriented upright with the tail feathers at the bottom and the studs facing you. Orient the part you have just built so the 1x4 of studs is horizontal and at the front. Add the part to the top of the kingfisher's body so that the angled Technic connector pokes up through the hole in the middle of the part.
- 77. Now we need to connect the body to the base of the model. Get the base of the model and orient it with the liftarm pointing toward you. Take the kingfisher's body and angle it toward you, as if the bird were flying up from the base and directly at you. Find the 2x2 of studs in the lower middle of the Kingfisher's body its upper row sits between two 1x2 grille slopes. Locate the modified Technic brick at the top of the liftarm assembly and connect it to the upper row of the 2x2 studded area. The liftarm should sit between the dark azure brackets below.
- 78. Find a yellow 2x4 curved slope. Orient it vertically with the anti-studs away from you and the slope curving down and away from you. Use the piece to secure the connection between the base and the body by placing it with its lowest end on the studs of the modified Technic brick on the end of the liftarm. The top end should sit just below the black horizontal 2x4 plate on the front of the body.
- 79. The kingfisher's breast is presently a mess of brightly colored pieces and unsightly Technic parts which we should cover with more appropriately colored parts. Locate a dark orange 10x2x2 left curved wedge and a 10x2x2 right curved wedge these are large, curved parts that complement one another. Orient them with the studs at the top, then connect the upper ends to the horizontal 2x4 plate on the model's front to create a single curved surface. The interior structure is now completely hidden from view!
- 80. Retrieve the final group of pieces for this bag. Gather a dark orange 1x2 tile, dark orange 2x2 curved slope, a dark orange 1x2 right wedge and a dark orange 1x2 left wedge. Put the 1x2 tile horizontally on the studs of the large, curved wedges from the last step, then shift your attention to the horizontal 1x4 of studs beneath the angled Technic connector. Place the 2x2 curved slope on the middle two studs so the curve slopes down to meet the top of the chest, then place the left and right wedges on either side so they slope in toward the 2x2 slope.
- 81. To finish off the main body, we need to give the bird some feet! Gather the following pieces: two medium nougat angled bars with hollow stud, four tan bar holders with clip, two tan T-bars, four tan cattle horns, and two tan 1x1 round plates with hollow studs. Use them to make two of the following part:

- 81.1. Orient an angled bar with stud so the stud faces up and the bar angles to the right, then put a 1x1 round plate on the stud.
- 81.2. Insert the middle bar of a T-bar into the hollow stud with the side bars perpendicular to the angled bar.
- 81.3. Make a sub-part by inserting the bar of a cattle horn into the end of a bar holder with clip. Orient the horn so it aligns with the direction of the clip. Then, clip it to one end of the T-bar so the claw end lies to the left with the claw pointing up. Make a second toe and attach it to the other end of the T-bar in the same way.
- 81.4. Add the parts to the build by flipping them over and inserting the angled bars into the hollow studs halfway down the bird's body on either side.

You have now come to the end of bag three, meaning that you are now halfway through building the set! The kingfisher is really beginning to take shape, and though we are far from done, the bird's sleek form and iconic colors are already evident.

Open bag 4 and collect the first group of pieces. In this section we will build the bird's right wing.

- 82. Take a dark blue 1x3 inverted slope and a black 1L bar with stud. Position the inverted slope with the thick end to the right, then place the bar with stud on the left stud of the slope with the bar pointing forward.
- 83. Find a dark blue 1x2 plate and a dark blue 1x1 inverted bracket with 1x2 vertical side studs. Connect the 1x2 plate horizontally to the right of the bar with stud, then swivel the bar to the right until it can't move any further. (This is important for later!) Orient the bracket with the side studs to the right and connect it under the right end of the inverted slope.
- 84. Locate a dark blue 1x1 plate and another dark blue 1x1 inverted bracket with 1x2 vertical side studs. Place the inverted bracket on the right stud of the part with the side studs to the right, then put the 1x1 plate on the stud to the left of the bracket.
- 85. Collect a dark blue 1x2 plate and a transparent clear 1x2 brick with 2x2 side studs on two opposite sides. Orient the pieces horizontally and stack the brick on top of the plate, then place the parts on top of the pieces placed in the last step.
- 86. Find a dark blue 1x3 tile and a dark blue 1x1 double curved slope. Attach the double curved slope to the bottom side stud with the flat ends of the slope at the top and bottom, then connect the 1x3 tile to the remaining three side studs above the double slope.
- 87. Gather the following pieces: one black bar with stud, one dark blue 1x2 plate, one dark blue 1x2 brick, one dark blue 1x2 inverted slope, and one dark blue 1x3 inverted slope. Use them to construct the following part:
- 87.1. Orient the 1x3 inverted slope with the thick end to the right, then place the 1x2 plate horizontally on the right two studs of the slope.
- 87.2. Place the stud of the bar with stud on the left stud of the inverted slope with the bar pointing forward. Gently swing the bar to the right until it cannot move further to achieve a subtle angle.
- 87.3. Put the 1x2 inverted slope on top of the bar with stud so it slopes to the left, then place the 1x2 brick horizontally to the right.
- 87.4. Add the part to the model by putting it on the left stud of the wing assembly.
- 88. Locate a dark blue 1x4 plate, a dark blue 1x1 plate with thick ring, and a black bar with stud. Place the plate with thick ring on the rightmost stud of the part with the ring section overhanging to the right. To the

left, place the 1x4 plate horizontally, then connect the bar with stud on the end. As before, swing the bar to the right as far as it will go.

Set what you have made to the side while we build another section of the wing.

- 89. Open the second group of pieces and begin by taking a dark blue 1x4 plate and a red 1x2 brick with 1x2 side studs on opposite sides. Orient the plate horizontally and place the brick horizontally on the right two studs.
- 90. Get a dark blue 1x1 brick with single side stud and place it to the left of the red 1x2 brick with the side stud facing forward.
- 91. Find a dark blue 1x2 brick and a dark blue 1x2 plate. Connect the brick horizontally to the left end of the build so it overhangs left by one stud, then place the plate horizontally with the right stud under the brick's overhang.
- 92. Put a dark blue 1x2 inverted slope horizontally on the left end of the model.
- 93. Collect a dark blue 1x3 plate, a dark blue 1x2 plate, and a dark blue 1x1 plate with thick ring. Put the 1x1 plate on the rightmost stud of the build with the ring overhanging to the right, then place the 1x3 plate and the 1x2 plate horizontally to the left.
- 94. Find a black bar with stud, a dark blue 1x2 inverted slope, and two dark blue 1x3 bricks. Place the bar with stud on the leftmost stud and swing the bar to the right as far as it will go, then place the inverted slope on top with the slope overhanging left. Place the 1x3 bricks horizontally to the right, covering the entire row of studs.
- 95. Gather a dark blue 1x2 curved left wedge, a dark blue 1x3 slope, and a dark blue 1x3 brick. Put the brick horizontally one stud in from the left, then add the slope brick with the stud in the left. At the right end of the row place the curved wedge with the pointed end to the right.
- 96. Take a dark blue 1x2 plate, a dark blue 1x2 inverted slope, and a black bar with stud. Place the bar with stud on the leftmost stud of the part with the bar pointing forward, then swing the bar as far as it will go to the right. Then, place the inverted slope horizontally on top of the bar with stud, and finally place the plate horizontally to the right.
- 97. Put a dark blue 1x3 plate horizontally over the leftmost three studs of the build.
- 98. Collect a dark blue 1x1 tile, a dark blue 1x2 curved left wedge, and a dark blue 1x4 curved slope. Place the curved wedge horizontally on the left stud of the plate from the last step so the sharp end of the wedge overhangs left. Put the 1x1 tile beside it, then connect the curved slope horizontally curving down to the right.
- 99. Retrieve the other section of wing from earlier and place the second section on top. The structure of the wing is now done, and we can start to layer pieces on top to build detail and texture.
- 100. Locate the third group of bricks, which contains only the pieces required for this step. We will use them to construct a textured panel of plates and tiles to suggest feathers. The pieces to be used are the following: a tan 2x2 corner plate, a tan 2x3 plate, a dark orange 2x2 curved slope, four dark orange 1x2 curved left wedges, three dark orange 1x2 plates with rail, three dark orange 1x3 tiles, one dark orange 2x2 corner tile, and one dark orange 2x3 left wedge plate. Use them to construct the panel as follows: 100.1. Orient the wedge plate horizontally with the sloped edge in the back.

- 100.2. Take a 1x2 plate with rail and orient it vertically with the rail to the right. Position it beside the wedge plate's right end so that the back stud of the rail plate is in line with the wedge plate's studs. Connect the pieces by placing a 1x3 tile horizontally across them, leaving the leftmost stud of the wedge plate and the front stud of the rail plate exposed.
- 100.3. Place a second 1x3 tile in front of the last so its right end covers the rail plate's front stud and then overhangs two studs to the left.
- 100.4. Take a tan 2x3 plate and connect it horizontally beneath the overhanging tile. Its left edge should align with the left edge of the wedge plate.
- 100.5. Put the 2x2 curved slope to the left of the 1x3 tiles so it slopes down to the left.
- 100.6. Place the last 1x3 tile in front of the others, leaving a free stud to the left. Then, connect the second rail plate vertically under the right overhang with the rail to the right.
- 100.7. Orient the dark orange 2x2 corner tile with the corner in the back right, so it forms a smooth version of the Braille letter D. Place the back right corner on the front rail plate's exposed stud, so the tile overhangs to the left and in front. Connect one last rail plate vertically under the front overhang with the rail to the right.
- 100.8. Orient the tan 2x2 corner plate so its studs form the Braille letter D and place its back right stud under the left overhang of the corner tile.
- 100.9. Place the wedge slopes horizontally on each of the four studs along the left edge of the part with the pointed ends facing left.
- 100.10. Take the main wing and place it flat with the bars sticking up from the left side of the wing. Add the part to the wing by connecting the frontmost part to the front right stud of the 2x2 of studs. The back of the part should neatly align with the back of the wing, while the rails of the rail plates obscure the thick rings along the right edge.
- 101. Open the fourth group of bricks. Flip the part over and reorient it with the sloped edge of the wing in the back. Collect a dark azure 1x6 plate and a dark azure 1x2 sloped tile. Orient the slope horizontally with the sloped face toward you and place its left end on the front right stud of the 2x2 of studs near the front edge of the wing. Then, place the 1x6 plate horizontally behind the slope so its right end aligns with the slope's right end.
- 102. Gather two more dark azure 1x2 sloped tiles, a dark azure 1x2 curved left wedge, a dark azure 1x2 curved right wedge, and two 2x2 curved slopes. Orient the sloped tiles horizontally with the sloped faces in front. Put the first slope to the left of the slope from the last step, then put the second to the left of the first. Behind the left end of the last tile, place a left wedge vertically with the point in the rear, then place the 2x2 slopes vertically to the right and curving down toward the back. Finish the row with the right wedge, placing it vertically on the rightmost stud of the 1x6 plate with the wedge pointing back. Flip the wing assembly over so that the bars along the long, sloped edge of the wing are in the back and tilting toward you.

Put the wing to the side for the next several steps while we construct a pair of dramatic wing feathers. Steps 103 through 109 should be completed twice to create two identical parts. You may wish to build each part individually or build them in parallel.

- 103. Find a dark blue 1x3 plate and a dark blue 1x2 plate and orient them horizontally. Put the 1x2 plate on top of the 1x3 plate's right two studs.
- 104. Locate a dark blue 1x4 inverted curved slope and orient it with the curve to the left. Connect the right end of the piece to the left stud of the part.
- 105. Get a dark blue 1x4 plate and place it horizontally on top of the part so that their right ends align. The top of the part should now constitute a horizontal 1x6 of studs.

- 106. Gather a dark blue 1x1 plate with thick ring, a dark blue 1x3 plate, and a dark blue 1x3 inverted slope. Orient the inverted slope horizontally and sloping to the right, then place the 1x1 plate on its right stud with the ring to the right. Connect the 1x3 plate horizontally to the left of the 1x1 plate so it overhangs to the left of the part by one stud. Add the part to the assembly by connecting the overhang to the right stud of the assembly.
- 107. Take a dark blue 1x10 curved slope and orient it horizontally with the studs to the right. Connect it to the model so the left end overhangs the part by one stud.
- 108. Collect a dark blue 1x2 curved left wedge slope and a dark blue 2x2 left wedge plate. Orient the wedge plate with the studs horizontal and in front, then place it on the horizontal 1x2 of studs at the right end of the part. The sloped part of the plate should overhang behind the part. Orient the wedge slope horizontally with the point to the right, then connect it to the right stud of the wedge plate.
- 109. Find a sand blue 1x2 inverted curved slope and a sand blue plant plate this piece has a round 1x2 of hollow studs and a broad, gently curved surface to the side representing a leaf. Here, it is used to represent a feather. Orient the inverted slope horizontally with the lower stud to the left and orient the plant plate horizontally with the studs to the right. Place the right stud of the plant plate on the lower stud of the inverted slope, then connect the part under the left end of the feather assembly.
- 110. Retrieve the wing and orient it with the bars sticking up and in the rear. Take one of the feathers and slide the thick ring on the end onto the back right bar so the feather points away from the wing. Connect the second feather to the bar the left of the last. Reposition the feathers so that the left feather points almost directly away from you, while the right feather points slightly to the right.
- 111. Collect the final group of pieces for this bag. Gather the following parts with which to make a third, slightly smaller feather: three dark blue 1x3 plates, a dark blue 1x4 plate, a dark blue 1x1 plate with thick ring, a dark blue 2x2 left wedge plate, a dark blue 1x4 curved slope, a dark blue 1x2 curved left wedge slope, two sand blue 1x2 inverted curved slopes, and a sand blue plant plate. Assemble the feather as follows:
- 111.1. Orient a 1x3 plate horizontally, then place the ring plate on the right stud with the ring to the right.
- 111.2. Place another 1x3 plate horizontally to the left of the ring plate. Take a 1x2 inverted slope and orient it horizontally with the lower stud to the right, then connect the lower stud beneath the overhang of the 1x3 plate you just placed.
- 111.3. Next, put the 1x4 plate horizontally on the right four studs of the part, then put the final 1x3 plate on the right three studs of the 1x4 plate.
- 111.4. Orient the 2x2 wedge plate horizontally with the studs in front and connect the front row of the piece to the right two studs of the part. To the left, place the 1x4 curved slope horizontally sloping down. It should overhang the part to the left by one stud.
- 111.5. Get the curved wedge slope and orient it horizontally with the point to the right. Connect the left end to the right stud of the wedge plate.
- 111.6. Take the second 1x2 curved inverted slope and hold it horizontally with the lower stud to the left, then orient the plant plate horizontally with the studs to the right and connect the plant plate's right stud to the lower stud of the inverted slope. Place the part under the assembly so the right end of the inverted slope meets the right end of the assembly.
- 111.7. Orient the feather on its side with the plant plate to the left and pointing away from you. Connect it to the wing assembly by sliding the thick ring at the closer end of the part onto the bar to the left of the other feathers. Adjust the position of the feather to close the gap between it and its neighbor.
- 112. Next we will make another feather, again smaller than the last. Collect the following: a dark blue 1x3 plate, three dark blue 1x2 plates, a dark blue 1x1 plate with thick ring, a dark blue 1x1 tile, a dark blue 1x4 curved slope, a sand blue 1x2 inverted curved slope, and a sand blue plant plate.

- 112.1. Begin by positioning a 1x2 plate horizontally and stacking the 1x3 plate on top so it overhangs to the right.
- 112.2. Next, orient the inverted curved slope horizontally with the lower stud to the right and connect it under the overhang. The part should now be four studs in length.
- 112.3. Put the ring plate on the right stud of the part with the ring to the right, then add a 1x2 plate horizontally to the left.
- 112.4. Stack the last 1x2 plate on the right two studs of the part.
- 112.5. Place the 1x4 curved slope horizontally on the left three studs of the part the slope should overhang left by one stud. Then, put the 1x1 tile on the stud to the right.
- 112.6. Orient the plant plate horizontally with the studs to the right and connect it to the bottom of the part. There should be no overhang to the right.
- 112.7. Connect the feather assembly to the wing by slipping the ring at one end of the part onto the bar to the left of the other feathers. Adjust the feather so that it touches its neighbor.
- 113. We will create one last tiny feather to finish off the wing, and then we can connect it to the main model! Find a dark blue 1x1 tile, a dark blue 1x1 plate with thick ring, a dark blue 1x2 plate, a dark blue 1x2 curved left wedge slope, and a sand blue 1x2 inverted curved slope.
- 113.1. Orient the inverted slope horizontally with the lower stud to the right, then place the ring plate horizontally on the right stud with the ring to the right.
- 113.2. Stack the 1x2 plate horizontally on top of the part.
- 113.3. Put the 1x1 tile on the right stud, then place the wedge slope horizontally to the left so the pointed end overhangs to the left of the part.
- 113.4. Orient the feather on its side with the wedge slope on the right side and pointing away from you. Finish the wing by sliding the bar at the near end of the part onto the bar at the right end of the wing assembly.
- 114. Good work completing the kingfisher's wing! You can now attach it to the main model. Retrieve the display and orient it so the bird's body angles forward. Along the front left side of the body, you should feel two small bars sticking out at an angle. On the wing's long side, opposite the feathers, there are two thick rings half-hidden under dark orange rail plates. Connect the wing to the body by sliding the rings onto the bars. This is a delicate process, so take your time to ensure the bars and rings are aligned.
- 115. Note that there is a gap between the wing and the body in front of the connection, but that there is a 1x4 of side studs here that will allow us to fill the gap and connect the dark orange underwing with the dark orange breast. Collect the following pieces: two dark orange 1x1 sloped tiles, two dark orange 1x2 sloped tiles, one dark orange 2x2 slope and one dark orange 2x4 sloped left wedge. Construct a part as follows:
- 115.1. Orient the 2x2 slope with the studs in the back and place a 1x1 slope on the right stud with the slope facing you.
- 115.2. Place the 2x4 sloped wedge horizontally to the left of the 2x2 slope and connect the pieces by placing a 1x2 slope horizontally with the slope facing forward to the left of the 1x1 slope.
- 115.3. To the left of the 1x2 slope, place another 1x2 slope and then a 1x1 slope in the same orientation as the other slopes.
- 115.4. Pick up the part and turn it vertically on its side so the anti-studs face right, and the part is thicker at the top than at the bottom. Connect it to the side studs on the main body so that the sloped tiles lie next to the wing and the top of the part sits against the bird's collar.

At the end of bag four, the kingfisher is now recognizably a bird! Even with only a single wing, it strikes a dynamic pose, its feathers fanned to maximize lift as the bird rises from the water.

Open bag 5, then get the first group of bricks.

The plants to the side of the bird are not yet done – let's add a little more to them. Rotate the base ninety degrees clockwise so that the bird is flying to the left. Locate the olive-green cylinders at the front left – we will place parts around here.

- 116. Find a dark green 1x1 round plant plate with three leaves and two bright green 1x1 round plant plates with upright leaves. Make a part: hold the plate with three leaves so that the leaves face right, then stack a plate with upright leaf on top with the leaf to the right. Finish the part by putting the other upright leaf plate on top of the last with the leaf in the back. Place the part on the stud to the right of the right cylindrical stack.
- 117. Collect two dark green 1x1 round plant plates with three leaves and four bright green 1x1 round plates with upright leaves. Make two identical parts by stacking an upright leaf plate on top of a three-leaf plate with the upright leaf and the middle of the three leaves aligned. Place these parts on the two studs in front and to the left of the previously placed parts, in front of the upright cylinders. Two studs to the left, place the next upright leaf plate with the leaf toward you, then place the last upright leaf plate on the stud to the left with the leaf to the left.
- 118. Locate two dark green sea grass pieces. These pieces have a short bar at the base, then branch out into four curving bars which mimic seaweed. Orient the pieces upright with the four curving bars pointing up and with the taller outside bar to the left. Insert the bottom bar into the bar holes of the upright leaf plates second and fourth from the right. The second part should be angled to avoid colliding with the first.

We will use the rest of the pieces from bag 5 to build the bird's left wing. The left wing is a mirror image of the right, so the steps are very similar.

- 119. Open the second bag of pieces and collect a dark blue 1x3 inverted slope and a black 1L bar with stud. Orient the inverted slope horizontally with the narrow end to the right, then place the bar with stud on the right stud of the slope with the bar pointing toward you.
- 120. Find a dark blue 1x2 plate and a dark blue 1x1 inverted bracket with 1x2 vertical side studs. Connect the 1x2 plate horizontally to the left of the bar with stud, then gently swing the bar to the left as far as it will go. Orient the bracket with the side studs to the left and connect it under the left end of the inverted slope.
- 121. Locate a dark blue 1x1 plate and another dark blue 1x1 inverted bracket with 1x2 vertical side studs. Place the inverted bracket on the left stud with the side studs facing left, then put the 1x1 plate on the stud to the right.
- 122. Collect a dark blue 1x2 plate and a transparent clear 1x2 brick with 2x2 side studs on opposite sides. Place the plate horizontally on top of the pieces placed in the previous step, then put the brick on top of the plate horizontally.
- 123. Take a dark blue 1x3 tile and a dark blue 1x1 double curved slope. Orient the slope on its side with the sloped surface to the left and the flat ends at the top and bottom, then connect it to the bottom side stud on the model's left. Attach the 1x3 tile to the three side studs above the double slope.
- 124. Gather the following pieces: one black bar with stud, one dark blue 1x2 plate, one dark blue 1x2 brick, one dark blue 1x2 inverted slope, and one dark blue 1x3 inverted slope. Use them to construct the following part:
- 124.1. Orient the 1x3 inverted slope horizontally with the narrow end to the right, then place the 1x2 plate horizontally on the left two studs of the slope.

- 124.2. Connect the bar with stud to the right stud of the inverted slope so that the bar points toward you. Gently swing the bar to the left until it can go no further.
- 124.3. Place the 1x2 brick horizontally across the left two studs of the part, then put the 1x2 inverted slope on top of the bar with stud so it overhangs to the right.
- 124.4. Add the part to the model by placing it on top of the bar with stud.
- 125. Collect a dark blue 1x4 plate, a dark blue 1x1 plate with thick ring, and a black bar with stud. Place the plate with thick ring on the leftmost stud of the part so the ring section overhangs to the left. Connect the 1x4 plate horizontally to the right, then put the bar with stud on the end. As before, swing the bar to the left as far as it will go.

Set what you have made to the side while we build another section of the wing.

- 126. Collect the third group of bricks and begin by taking a dark blue 1x4 plate and a red 1x2 brick with 1x2 side studs on opposite sides. Orient the plate horizontally and place the brick horizontally on the left two studs.
- 127. Get a dark blue 1x1 brick with single side stud and orient it with the side stud facing you. Place it to the right of the red 1x2 brick.
- 128. Find a dark blue 1x2 brick and a dark blue 1x2 plate. Connect the brick horizontally to the right end so it overhangs by one stud. Then place the plate horizontally with the left stud under the brick's overhang.
- 129. Put a dark blue 1x2 inverted slope horizontally on the right end of the model.
- 130. Collect a dark blue 1x3 plate, a dark blue 1x2 plate, and a dark blue 1x1 plate with thick ring. Connect the 1x1 plate to the leftmost stud of the build with the thick ring overhanging to the left, then place the 1x3 plate and the 1x2 plate horizontally to the right.
- 131. Find a black bar with stud, a dark blue 1x2 inverted slope, and two dark blue 1x3 bricks. Place the first 1x3 brick horizontally across the left three studs of the part, then connect the second 1x3 brick horizontally to the right. Next, put the bar with stud on the rightmost stud of the part and swing the bar to the left as far as it will go. Lastly, place the inverted slope on top of the bar with stud with the slope overhanging right.
- 132. Gather a dark blue 1x2 curved right wedge, a dark blue 1x3 slope, and a dark blue 1x3 brick. Orient the pieces horizontally with the sloped pieces sloping down to the left. Put the wedge's right end on the leftmost stud of the part. Connect the slope to the right, then add the brick to the right of the slope.
- 133. Take a dark blue 1x2 plate, a dark blue 1x2 inverted slope, and a black bar with stud. Place the bar with stud on the rightmost stud of the part with the bar pointing toward you, then swing the bar as far as it will go to the left. Put the inverted slope horizontally on top of the bar with stud so it overhangs to the right. Finally, place the plate horizontally to the left of the inverted slope.
- 134. Put a dark blue 1x3 plate horizontally over the rightmost three studs.
- 135. Collect a dark blue 1x1 tile, a dark blue 1x1 curved left wedge, and a dark blue 1x4 curved slope. Orient the 1x4 slope horizontally curving down to the left and connect it across the left four studs of the part. There should be two exposed studs remaining at the right end of the assembly. Put the 1x1 tile on the left stud, then place the curved wedge horizontally on the final stud so the sharp end overhangs to the right.

- 136. Retrieve the other section of wing from earlier and place the second section on top. The structure of the wing is now done, and we can start to layer pieces on top to build detail and texture.
- 137. Orient the wing assembly on its side with the sloped edge of the wing in the rear and the bars underneath the wing. Collect the fourth group of pieces and find a dark azure 1x6 plate and a dark azure 1x2 sloped tile. Orient the slope horizontally sloping toward you and place its left end on the front right stud of the assembly. Then, place the 1x6 plate horizontally behind the slope so that its right end aligns with the slope's right end.
- 138. Gather two more dark azure 1x2 sloped tiles, a dark azure 1x2 curved left wedge, a dark azure 1x2 curved right wedge, and two dark azure 2x2 curved slopes. Orient the sloped tiles horizontally with the sloped faces in front, and the curved slopes and wedges so they are sloping away from you. Put the first sloped tile to the left of the slope from the last step, then put the second to the left of the first. Place the left wedge on the leftmost stud of the 1x6 plate behind the sloped tiles. Add the first 2x2 slope to the right of the wedge, then add the second 2x2 slope to the right of the first. Finish the row with the right wedge.
- 139. Next we will construct a textured panel of plates and tiles to suggest feathers. Find the next group of parts, which contains only the parts needed for this step: a tan 2x2 corner plate, a tan 2x3 plate, a dark orange 2x2 curved slope, four dark orange 1x2 curved right wedge slopes, three dark orange 1x2 plates with rail, three dark orange 1x3 tiles, one dark orange 2x2 corner tile, and one dark orange 2x3 right wedge plate. Use them to construct the panel as follows:
- 139.1. Orient the wedge plate horizontally with the sloped edge in the back.
- 139.2. Take a 1x2 plate with rail and orient it vertically with the rail to the left. Position it next to the wedge plate's left end so that the back stud of the rail plate is in line with the row of studs on the wedge plate. Connect the pieces by placing a 1x3 tile horizontally across them, leaving the rightmost stud of the wedge plate and the front stud of the rail plate exposed.
- 139.3. Put a second 1x3 tile in front of the last so that its left end covers the rail plate's front stud then overhangs two studs to the right.
- 139.4. Take the tan 2x3 plate and place it horizontally beneath the overhanging tile. Its right edge should align with the right edge of the wedge plate.
- 139.5. Collect the 2x2 curved slope and orient it so it slopes down to the right. Connect the left column of the piece to the right of the 1x3 tiles.
- 139.6. Place the last 1x3 tile horizontally across the left two exposed studs of the part so that it overhangs to the left by one stud. Then, orient a rail plate vertically with the rail to the left and connect the back stud under the tile's overhang.
- 139.7. Take the dark orange 2x2 corner tile and orient it with the corner in the back left so that it forms a smooth version of the Braille letter F. Place the back left corner on the front rail plate's exposed stud, so the tile overhangs to the right and in front. Orient the last rail plate vertically with the rail to the left and place it vertically under the front overhang.
- 139.8. Orient the tan 2x2 corner plate so its studs form the Braille letter F and place its back left stud under the right overhang of the corner tile.
- 139.9. Orient the four wedge slopes horizontally with the pointed ends to the right. Connect the left end of a wedge plate to each of the four studs along the right edge of the part.
- 139.10. Flip the wing over so the bars lie in the back and tilt toward you. Then, attach the completed panel to the wing by connecting the panel's front right corner to the front right stud on the wing. The left side of the panel should align with the left edge of the wing, while the rails of the rail plates sit very slightly over the thick rings along the front edge.

Get the next group of pieces and put the wing to the side while we construct a pair of large wing feathers. Steps 140 through 146 should be completed twice to create two identical parts. You may wish to build each part individually or build them in parallel.

- 140. Find a dark blue 1x3 plate and a dark blue 1x2 plate and orient them horizontally. Put the 1x2 plate on the 1x3 plate's right two studs.
- 141. Locate a dark blue 1x4 inverted curved slope and orient it with the curve to the left. Place the right end of the inverted slope on the left stud of the part.
- 142. Get a dark blue 1x4 plate and place it horizontally onto the part so that their right ends align. The top of the part should now form a horizontal 1x6 of studs.
- 143. Gather a dark blue 1x1 plate with thick ring, a dark blue 1x3 plate, and a dark blue 1x3 inverted slope. Orient the inverted slope horizontally with the narrow end to the right, then place the 1x1 plate on its right stud with the ring to the right. Connect the 1x3 plate horizontally to the left of the 1x1 plate so it overhangs the part to the left by one stud. Add the part to the assembly by connecting the overhang to the right stud of the assembly.
- 144. Take a dark blue 1x10 curved slope and orient it horizontally with the studs to the right. Connect it to the assembly so the left end overhangs the part by one stud.
- 145. Collect a dark blue 1x2 curved right wedge slope and a dark blue 2x2 right wedge plate. Orient the wedge plate horizontally with the sloped edge in front, then place it on the horizontal 1x2 of studs at the right end of the part. The sloped part of the plate should overhang the part in front. Orient the wedge slope horizontally with the point to the right, then connect the left end to the right stud of the wedge plate.
- 146. Find a sand blue 1x2 inverted curved slope and a sand blue plant plate. Orient the inverted slope horizontally with the lower stud to the left and orient the plant plate horizontally with the studs to the right. Place the right stud of the plant plate on the lower stud of the inverted slope, then connect the part under the right end of the feather assembly.

If necessary, repeat steps 140 through 146 to obtain a second feather. Once you have both parts, proceed to step 147.

- 147. Retrieve the wing and orient it with the bars sticking up and in the rear. Orient the feathers on their sides with the plant plates facing right and the thick rings in front. Take one of the feathers and slide the thick ring onto the leftmost bar so the feather points away from the wing. Connect the second feather to the bar to the right of the last and reposition the feathers so that the right side of the first touches the left side of the second.
- 148. Open the last group of pieces. Gather the following parts with which to make another, smaller feather: three dark blue 1x3 plates, a dark blue 1x4 plate, a dark blue 1x1 plate with thick ring, a dark blue 2x2 right wedge plate, a dark blue 1x4 curved slope, a dark blue 1x2 curved right wedge slope, two sand blue 1x2 inverted curved slopes, and a sand blue plant plate. Assemble the feather as follows:
- 148.1. Orient a 1x3 plate horizontally, then place the ring plate on the right stud with the ring to the right.
- 148.2. Place another 1x3 plate horizontally to the left of the ring plate. Take a 1x2 inverted slope and orient it horizontally with the lower stud to the right, then connect the lower stud beneath the overhang of the 1x3 plate.
- 148.3. Next, put the 1x4 plate horizontally on the right four studs of the part, then place the final 1x3 plate on the right three studs of the 1x4 plate.
- 148.4. Orient the 2x2 wedge plate horizontally with the studs in the rear. Connect the back row of the piece to the right two studs of the part. To the left, place the 1x4 curved slope horizontally sloping down the slope should overhang the part to the left by one stud.

- 148.5. Get the curved wedge slope and orient it horizontally with the point to the right and connect the left end to the right stud of the wedge plate.
- 148.6. Take the second 1x2 curved inverted slope and hold it horizontally with the lower stud to the left, then orient the plant plate horizontally with the studs to the right. Connect the plant plate's right stud to the lower stud of the inverted slope. Place the part under the assembly so the right end of the inverted slope meets the right end of the assembly.
- 148.7. Orient the feather on its side with the plant plate to the right and pointing away from you. Connect it to the wing assembly by sliding the thick ring at the closer end of the part onto the bar to the right of the other feathers. Adjust the position of the feather to close the gap between it and its neighbor.
- 149. Next we will make another feather, again smaller than the last. Collect the following: a dark blue 1x3 plate, three dark blue 1x2 plates, a dark blue 1x1 plate with thick ring, a dark blue 1x1 tile, a dark blue 1x4 curved slope, a sand blue 1x2 inverted curved slope, and a sand blue plant plate.
- 149.1. Begin by positioning a 1x2 plate horizontally and stacking the 1x3 plate on top so it overhangs to the left by one stud.
- 149.2. Next, orient the inverted curved slope horizontally with the lower stud to the right and connect it under the overhang. The part should now be four studs in length.
- 149.3. Put the ring plate on the right stud of the part with the ring to the right, then add a 1x2 plate horizontally to the left.
- 149.4. Stack the last 1x2 plate on the right two studs of the part.
- 149.5. Place the 1x4 curved slope horizontally on the left three studs of the part the slope should overhang left by one stud. Then, put the 1x1 tile on the stud to the right.
- 149.6. Orient the plant plate horizontally with the studs to the right and connect it to the bottom of the part. There should be no overhang to the right.
- 149.7. Orient the feather assembly on its side with the plant plate to the right and the thick ring at the front. Connect the feather assembly to the wing by sliding the thick ring onto the bar to the right of the other feathers. Adjust the feather so that it touches its neighbor.
- 150. We will create one last tiny feather to finish off the wing, and then we can connect it to the main model! Find a dark blue 1x1 tile, a dark blue 1x1 plate with thick ring, a dark blue 1x2 plate, a dark blue 1x2 curved right wedge slope, and a sand blue 1x2 inverted curved slope.
- 150.1. Orient the inverted slope horizontally with the lower stud to the right, then place the ring plate horizontally on the right stud with the ring to the right.
- 150.2. Stack the 1x2 plate horizontally on top of the part.
- 150.3. Put the 1x1 tile on the right stud, then place the wedge slope horizontally to the left so the pointed end overhangs to the left of the part.
- 150.4. Orient the feather on its side with the wedge slope on the left and pointing away from you. Finish the wing by sliding the thick ring at the near end of the part onto the bar at the right end of the wing assembly.
- 151. The wing assembly is complete and can now be added to the display. Bring back the main model and orient it so the bird appears to be flying directly towards you the first wing will be on the left of the body. Feel along the front right side of the bird for two bars jutting out at an angle. Attach the wing to the main model by slipping the bars into the pair of thick rings along the flat edge of the wing assembly.
- 152. Note that there is a gap left between the breast and wing of the bird. In this step, we will make a part that will fill the gap. Collect the following pieces: two dark orange 1x1 sloped tiles, two dark orange 1x2 sloped tiles, one dark orange 2x2 sloped brick, and one dark orange 2x4 sloped right wedge brick. 152.1. Position the 2x2 sloped brick horizontally with the sloped face toward you. Place a 1x1 sloped tile
- on the left stud of the brick with the sloped face toward you.

- 152.2. Connect a 1x2 sloped tile horizontally to the right of the 1x1 sloped tile, again with the sloped face toward you. The piece should overhang to the right of the part by one stud. Then, orient the sloped wedge brick horizontally with the studs in the rear and connect the left stud of the brick under the overhang. 152.3. Orient the remaining 1x1 and 1x2 sloped tiles horizontally with the sloped faces toward you. Place the 1x2 slope on the left two studs of the wedge brick, then finish the row by placing the 1x1 slope on the remaining exposed stud.
- 152.4. Orient the part vertically on its side so the anti-studs face left, the sloped faces still face you, and the top of the part is thicker than the bottom. Locate the vertical 1x4 of side studs along the right side of the bird, between the wing and the breast. Attach the part to the side studs so the top of the part lies right under the bird's collar. The part neatly bridges the gap between breast and wing, connecting the dark orange regions.

Congratulations, you have finished the wings and reached the end of bag 5! Bag 6 is the final bag, in which you will build the kingfisher's head and add the finishing touches to the diorama.

Put the main model to the side while we build the bird's head. Open the first group of parts.

- 153. Locate three blue 2x2 round plates and stack them directly on top of each other.
- 154. Collect two orange 1x2 plates and orient them vertically. Place the first on the right column of studs of the blue 2x2 round plate, then put the second on top of the first.
- 155. Gather the following pieces: a light bright orange 1x2 ingot tile, two dark orange 1x2 round plates, and two black 1x3 round plates. Use them to make a part as follows:
- 155.1. Orient a 1x2 round plate vertically and a 1x3 round plate horizontally. Connect the 1x3 plate to the 1x2 plate by placing the middle stud of the 1x3 plate on top of the back stud of the 1x2 plate.
- 155.2. Orient another 1x2 round plate vertically. Connect the rear stud under the 1x3 plate's left stud.
- 155.3. Place the second 1x3 round plate horizontally in front of the other 1x3 plate so that their ends align.
- 155.4. Finish the part by putting the ingot tile vertically on the middle column of the part.
- 155.5. Add the part to the assembly by connecting the right end of the part to the left column of the assembly.
- 156. Find two black 1x1 brackets with 1x2 vertical side studs. Orient one with the side studs facing forward and place it on the front stud to the right of the ingot. Place the other bracket symmetrically behind the first.
- 157. Take two dark blue 1x2 brackets with 2x2 side studs. Orient one with the side studs facing you and place its right stud on the stud at the left end of the assembly so that it overhangs to the left. Connect the second bracket symmetrically behind the first.
- 158. Next, we will make a panel to attach to the front side studs. Collect the following parts: a dark orange 1x1 bracket with single side stud, a dark orange left 1x2 wedge slope, a dark orange right 1x2 wedge slope, a dark orange 1x1 plate, a dark blue 1x2 curved slope, and a nougat 2x3 modified plate with 1x1 cutout. This latter piece has a stud missing from the middle of the piece, so it can be oriented to feel like the Braile letter Y.
- 158.1. Begin by orienting the bracket with the side stud facing you and place the 1x1 plate on the side stud.
- 158.2. Orient the modified plate with 1x1 cutout horizontally with the cutout in front. Connect the bracket to the stud behind the cutout so the side stud faces you.

- 158.3. Take the dark blue curved slope and the dark orange left wedge slope and orient them horizontally sloping down to the right. Place the left end of the curved slope on the front right stud, then connect the wedge behind it.
- 158.4. Orient the right wedge slope horizontally with the point to the left and connect its right end on top of the bracket. The piece should not overhang the part.
- 158.5. Attach the part to the side studs on the front of the head assembly so that the exposed stud of the plate with cutout sits in the top right.
- 159. Now make a second panel which is the mirror of the first. Gather a dark orange 1x1 bracket with single side stud, a dark orange 1x2 right wedge slope, a dark orange 1x2 left wedge slope, a dark orange 1x1 plate, a dark blue 1x2 curved slope, and a nougat 2x3 modified plate with 1x1 cutout.
- 159.1. Orient the bracket with the side stud facing you and place the 1x1 plate on the side stud.
- 159.2. Orient the modified plate horizontally with the cutout in front, then place the bracket on the stud behind the cutout so the bracket's side stud faces you.
- 159.3. Take the 1x2 right wedge and 1x2 curved slope and orient horizontally so they slope down to the left. Place the wedge's right end on the back left stud of the part, then put the right end of the curved slope on the stud in front of the wedge.
- 159.4. Orient the left wedge horizontally pointing right and connect its right end on top of the bracket.
- 159.5. Add the part to the model by flipping it on its side so the anti-studs face you and the stud on the bracket points up, then connect it to the side studs on the rear of the head assembly.
- 160. Locate two dark blue 2x2 corner plates and an orange 1x2 plate. Orient the 1x2 plate vertically and place it on the second column in from the left. Arrange a 2x2 corner plate so that its studs form the Braille letter F and connect the back row of studs to the front row of studs at the assembly's right end. Place the second corner plate symmetrically behind the first.
- 161. Find a black 1x2 plate with upright bar and a black 1x2 modified plate with rubber spike. The latter part has a vertical 1x2 of studs on one side and then a long, tapering spike of rubberized plastic. Orient the plate with upright bar vertically with the bar to the left, then orient the plate with spike with the spike pointing to the left. Put the studs at the end of the spike plate on top of the plate with upright bar, then connect the part to the head under the column at the left end of the assembly. The pieces you have just added form the upper beak of the kingfisher, and the assembly now looks much more like a head!
- 162. Next we will construct the kingfisher's lower jaw. To do so, open the next group of bricks and gather the following pieces: a black 1x2 modified plate with rubber spike, two black 1x3 round plates, two dark orange 1x2 round plates, and four white 2L bars.
- 162.1. Orient a 1x2 round plate vertically and a 1x3 round plate horizontally. Place the right stud of the 1x3 plate on top of the back stud of the 1x2 plate.
- 162.2. Take a second 1x2 round plate and orient it vertically. Connect the back stud under the middle stud of the 1x3 plate.
- 162.3. Place the other 1x3 round plate horizontally in front of the other 1x3 plate so their ends align.
- 162.4. Orient the modified plate with rubber spike so the spike points left. Connect the studs under the left column of the part.
- 162.5. Flip the part along its length the spike should still point to the left. Collect the four 2L bars. Hold each upright and insert them into the 2x2 of open studs at the right end of the part.
- 162.6. Flip the part over again so the studs face up and the spike points left. To connect it to the head, first flip the head along its length so the spike points left, and the bottom of the part faces up. Then, locate the 2x2 of open studs three studs in from the right side of the head, to the left of the round 2x2 plates. Attach the lower beak by inserting the bars protruding from the part into the open studs on the head.

- 163. Locate a dark blue 1x2 plate and a dark blue 2x4 plate and orient them vertically. Place the 1x2 plate on the column to the right of the spike, then place the middle two rows of the 2x4 on top of the remaining 2x2 of studs to the right of the previously placed part.
- 164. Flip the head assembly over again, keeping the beak pointing left. Collect the following parts: two dark blue 1x2 curved slopes, a white 1x2 right wedge slope, a white 1x2 left wedge slope, two black 1x1 bricks with two side studs on adjacent sides, and two black 1x1x2/3 round bricks with single side stud. (These last pieces are only two plates high, rather than the usual three plates which is standard for bricks.) Use them to make two parts:
- 164.1. Take a round brick with side stud and orient it so the side stud faces you. Then, orient a brick with side studs so one stud faces you and the other faces right, and stack the brick on top of the previous piece.
- 164.2. Orient a curved slope and a right wedge slope horizontally sloping to the left. Place the right end of the curved slope on the top front side stud and put the right end of the wedge slope on the bottom front side stud.
- 164.3. Two rows in from the right side of the head is a side stud on the front under an overhang. Connect the completed part to the head by attaching the left end of the curved slope to the side stud.
- 164.4. Next, make a second part which is the mirror image of the first. Orient a round brick with side stud with the side stud in front and stack a brick with side studs on top so that one side stud faces front, and the other faces left.
- 164.5. Take a curved slope and a left wedge slope and orient them horizontally sloping down to the right. Place the left end of the curved slope on the top front stud, then place the left end of the wedge slope on the bottom front side stud.
- 164.6. Connect the completed part to the back of the head, symmetrical to the first part.
- 165. Find two dark blue 2x2 curved slopes and a black 2x2 bracket with 2x2 side studs.
- 165.1. Orient the bracket with the side studs facing you.
- 165.2. Orient the first curved slope so it curves down to the left and connect its right column to the left column of side studs on the bracket. Orient the second curved slope horizontally curving down to the right and connect its left end to the right column of side studs on the bracket.
- 165.3. Connect the completed part to the back of the head assembly by placing the top corners of the part on the side studs. The base of the bracket should sit under the bottom of the head.
- 166. Next, let's create the eyes. Locate a dark blue 1x4 plate, two dark blue 1x1 bricks with recessed side studs, and two black minifigure microphones. The microphones comprise a short bar topped with a small ball, much like some real-life microphones. Make two identical parts by taking a brick with recessed stud and inserting the bar end of a microphone element into the back of the brick, behind the side stud. To place the parts, first locate the two recessed studs two rows in from the right end of the part they lie at either end of the vertical ingot tile. Connect the parts to the studs at either end of the column so that the balls of the microphones face out from the head. Add the 1x4 plate vertically to the right of the eyes.
- 167. Collect two dark blue 2x3 curved right wedge slopes and two dark blue 2x3 curved left wedge slopes. Use them to cap the bird's head as follows: Orient the head with the beak pointing away from you and orient a left and a right wedge slope vertically pointing away. Place the left wedge's front left corner on top of the stud above the left eye and put the right wedge so its front right corner sits on top of the right eye. There should be no exposed studs left between the wedges. Then, orient the other left and right wedges so they point toward you and connect them in front of the other wedges, so their points meet in the middle.
- 168. Open the next group of bricks. Flip the head along its length, keeping the beak pointing away from you. Gather two dark blue 1x3 curved slopes, a dark blue 1x2 left wedge slope and a dark blue 1x2 right wedge slope. Orient the 1x3 curved slopes vertically curving down toward you and connect their rears to

the outside front studs. Orient the left and right wedge slopes so they point away from you, then place the left and right wedges on the studs behind the curved slopes on the left and right respectively.

- 169. Find two white 1x2 inverted arch pieces and a white 1x2 triple slope. (A triple slope has three sloped faces which meet in a point.) Orient the inverted arches vertically with the studs in front and place them next to each other on the rear 2x2 of studs. Orient the triple slope horizontally with the flat back facing you and connect it across the inverted arches. Together, these white pieces form the striking white chin of the kingfisher.
- 170. Take a light grey 3L axle and hold it vertical. Insert the axle into the hole in the center of the head and push it in as far as it will go, then slide a half bush down the axle.
- 171. To finish the neck, collect two more 1x2 white triple slopes and a white 1x2 brick with 2x2 side studs. Make a part as follows:
- 171.1. Orient the brick horizontally with the side studs facing you and place a triple slope horizontally on top sloping away from you.
- 171.2. Hold the second triple slope vertically with the slopes to the left and connect it to the right column of side studs.
- 171.3. Place the part on the horizontal 1x2 of studs behind the axle from the previous step.

The head is complete and can be added to the model!

172. Retrieve the main model and orient it so that it appears to be flying directly toward you. Locate the neck joint on the main model, recalling that it is formed of a tilted angled Technic connector. This will allow us to set the head at an interesting angle. Orient the head with the beak pointing forward, then tilt it slightly to the right. Carefully line up the Technic axle and the Technic connector before pushing them together to form a strong connection.

Fantastic work – the kingfisher is complete, but there are a few finishing touches to be added! First, we will finalize the vegetation on the base of the diorama, then give the kingfisher one last thing.

- 173. Rotate the model 180 degrees and locate the plants to the left of the tail, in front of the left wing. Collect the next group of bricks and find two olive green tails with pin and bar hole, and two tail ends with bar. Create two parts by inserting the bars of the tail ends into the bar holes of the tails. Twist the tail ends so that they curve in the opposite direction to the longer sections. To add them to the diorama, first locate the shorter vertical Technic pin connectors next to the bird's tail, then insert the pins into the connectors.
- 174. Next we will construct two bullrushes that add verticality to the diorama. The instructions in this step can either be followed twice or completed in duplicate according to your building style. Collect two olive green tail ends, two olive green tails with pin and bar hole, four lime green 1x1 round plates with hollow stud, two yellow 4L bars, two brown 2x2 dome bottoms, six brown 2x2 round bricks, two brown 2x2 dome bricks, and two brown 2L bars.
- 174.1. Stack three brown 2x2 round bricks to form a column.
- 174.2. Take the yellow bar and insert it into the axle hole of the top brick, then push it through as far as it will go. This strengthens the construction considerably.
- 174.3. Take two lime green 1x1 round plates with hollow studs and stack them, then place them inside the bowl of a brown 2x2 dome bottom. Place the part under the stack of round bricks.
- 174.4. Locate an olive green tail end and insert the end of the tail into the underside of the dome bottom.
- 174.5. Top the column of round bricks with a brown dome brick, then insert a 2L bar into the stud on top of the dome.
- 174.6. Complete the bullrush by connecting the bar end of the tail end to the bar hole of the tail with bar hole and pin.

174.7. Complete the steps above twice to end up with two identical bullrush parts. Insert the pins at the bottom of each part into the pin holes of the stacked Technic connectors in the middle of the plants.

Bulrushes are instantly recognizable aquatic plants that have long, slender stems topped with large brown sausage-like structures. Here, they bend as though blown by a gust of air, or the powerful downdraft of the kingfisher's wings.

Lastly, let's reward our kingfisher for his efforts – with a fish!

- 175. Gather a metallic silver 1x1 tile, two metallic silver 1x2 right wedge slopes, a black 1x2 inverted curved slope, a light grey 1x2 plate with vertical clip at one end, and a light grey 1x4 plate.
- 175.1. Orient the inverted curved slope horizontally with the lower stud to the left.
- 175.2. Hold the 1x4 plate vertically and place the second stud from the back on top of the lower stud of the inverted slope. The plate should overhang two studs in front and one stud in the back.
- 175.3. Position the 1x2 plate with clip at one end horizontally with the clip to the right. Connect it across the plate and inverted slope.
- 174.4. Orient the wedge slopes vertically so that one points back and the other forward. Place the front stud of the back-pointing wedge on the rear stud of the part, then place the back stud of the front-pointing wedge on the front stud of the part. Finish the fish by placing the 1x1 tile on the stud behind the front-pointing wedge.
- 175.5. Place the fish in the kingfisher's beak by connecting the clip to the bar at the back of the bird's mouth.

The diorama – and the set – is now complete! The kingfisher rises triumphant from the shimmering waters, a fish in his beak.

Thank you so much for building this set!

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