



Structures and Functions of Living Things

# Survival of the Fittest

Teacher's Pet



# Guiding Question

In what ways do the structures of organisms support survival?

# Survival of the Fittest



Brainstorm:

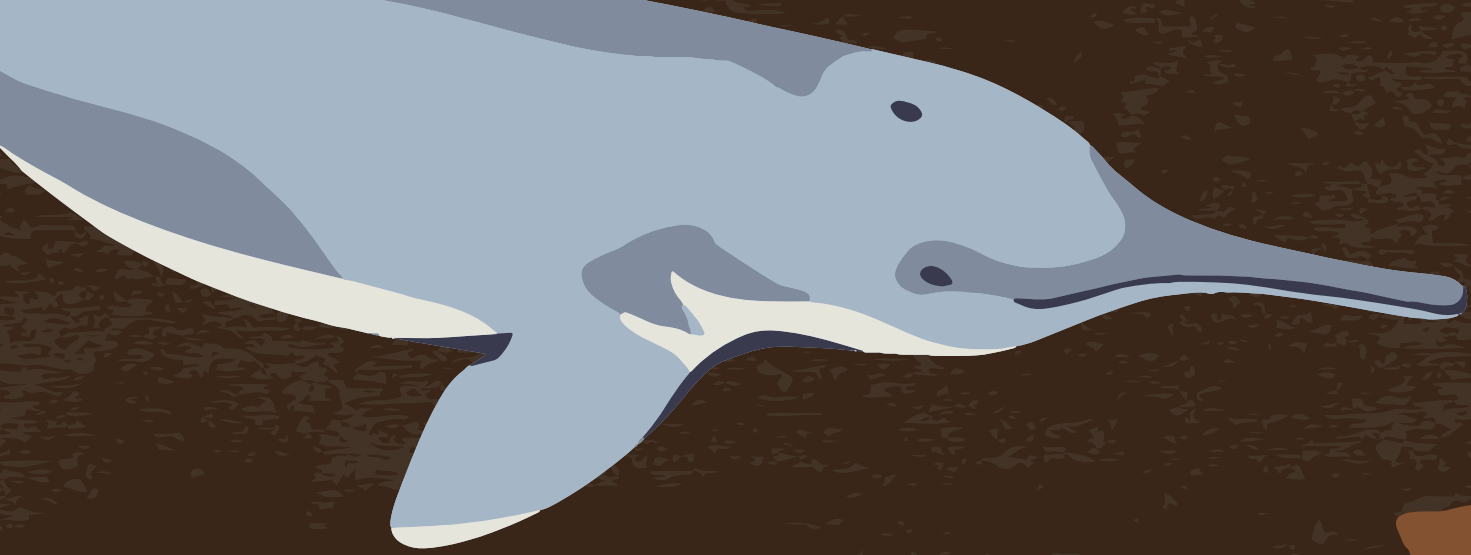
What do all living things  
have in common?



**All organisms GROW, LIVE  
and SURVIVE on Earth!**

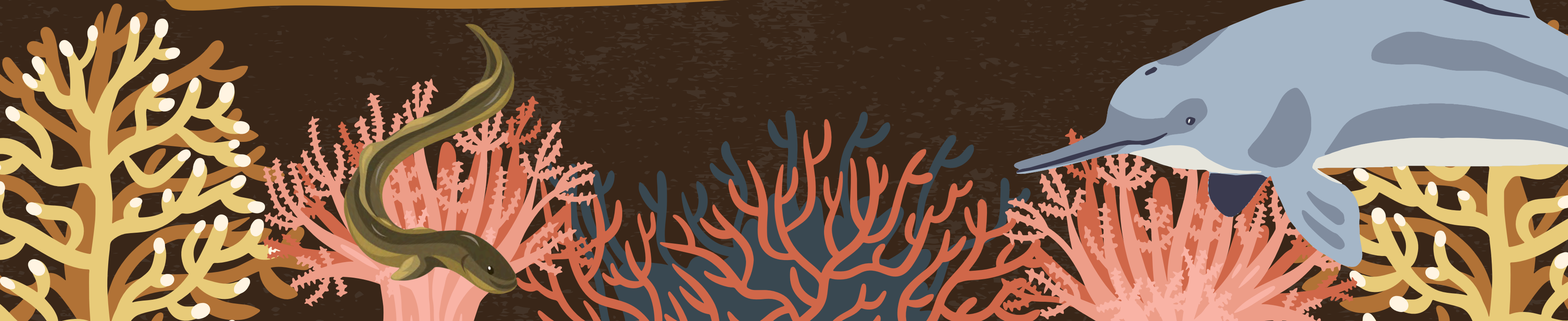
Needs of Living Things:

- Energy
- Produce waste
- Sense & Respond to the Environment
- Move
- Reproduce
- Seek Protection or Shelter
- Grow, Change, & Adapt



Brainstorm:

What is an organism?



# What is an organism?

- A living thing that will respond to stimuli
- Organisms sense and respond to their environment to support growth and survival



**A variety of organisms live on earth  
and have external structures that  
support various functions:**

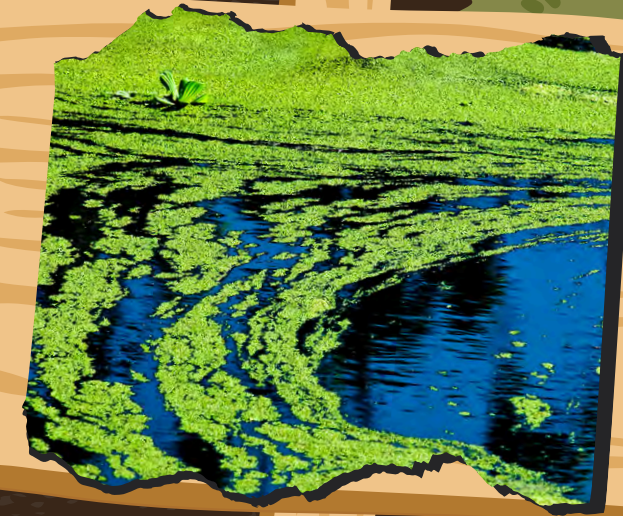
**Over  
8.7 million  
species on  
earth!**



**Plants**



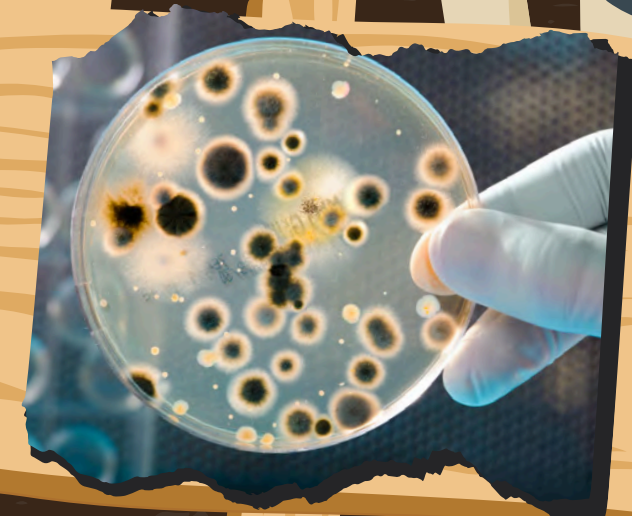
**Fungi**



**Algae**



**Animals**



**Bacteria**

# Six Teams

How will the structures of your organism help the class win the Survival of the Fittest competition?



**Remarkable Rabbits**



**Lively Lobsters**



**Sensational Sunflowers**



**Powerful Pine Trees**



**Playful Penguins**

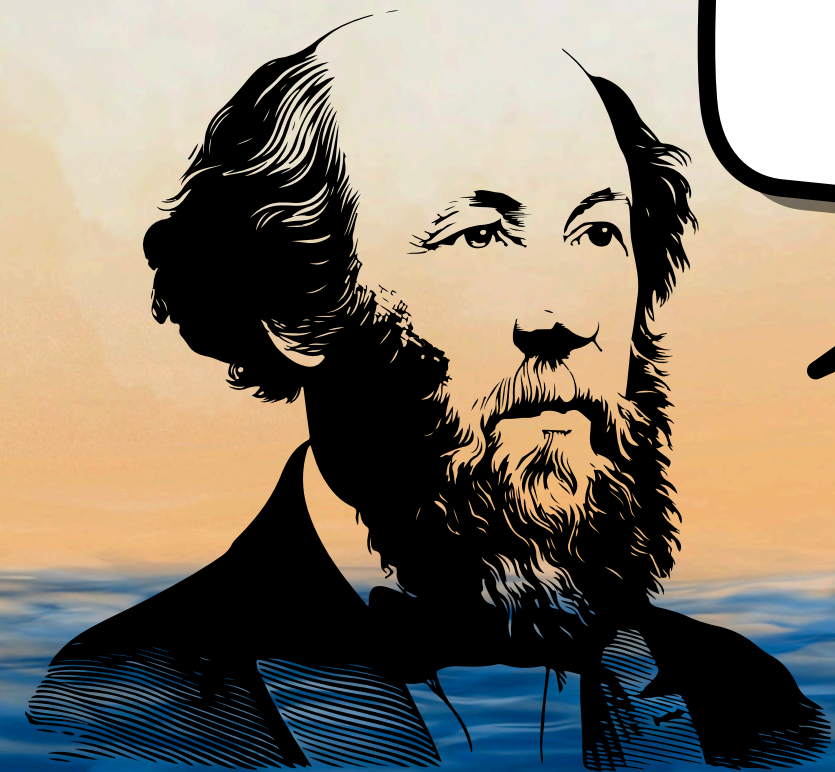


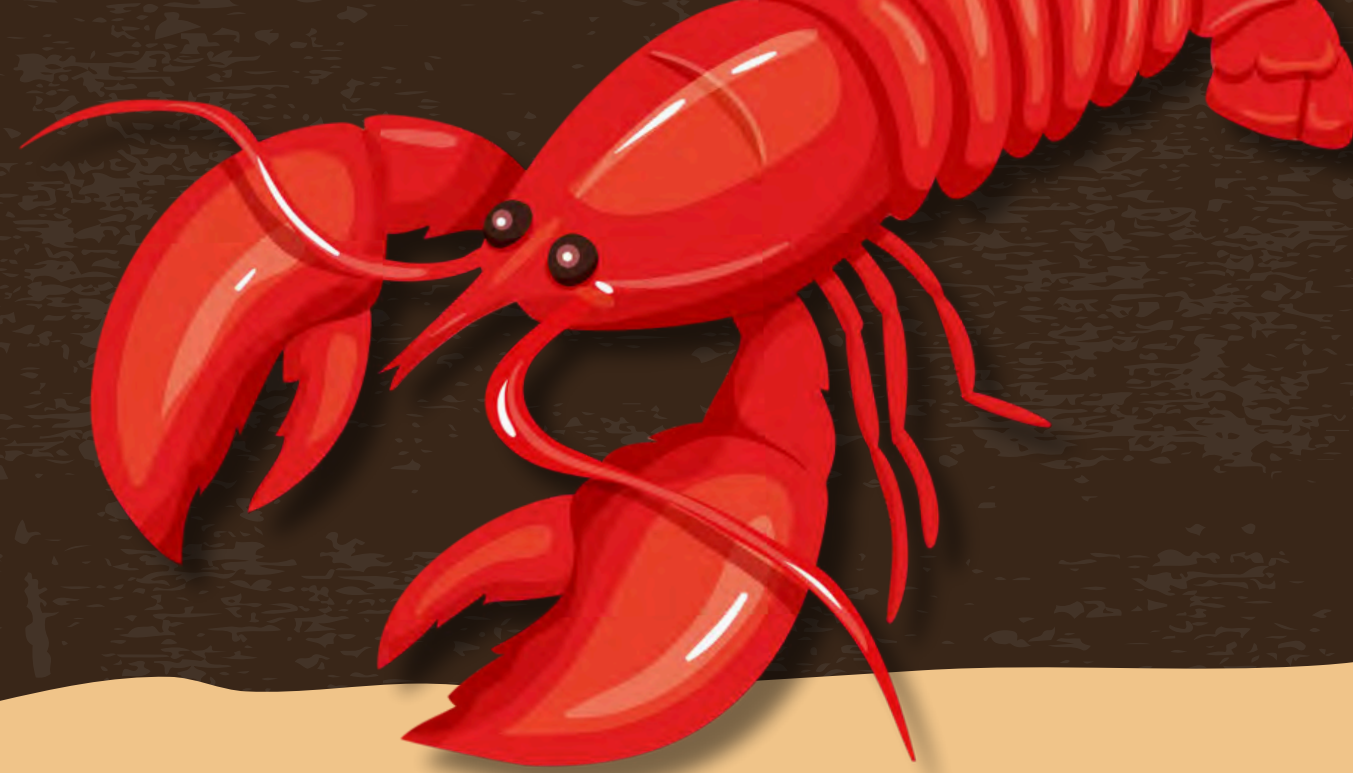
**Brilliant Bats**

# Darwin's Discoveries

"Survival of the Fittest"

- Herbert Spencer





# Survival of the Fittest Video



**Complete 4 team challenges!**



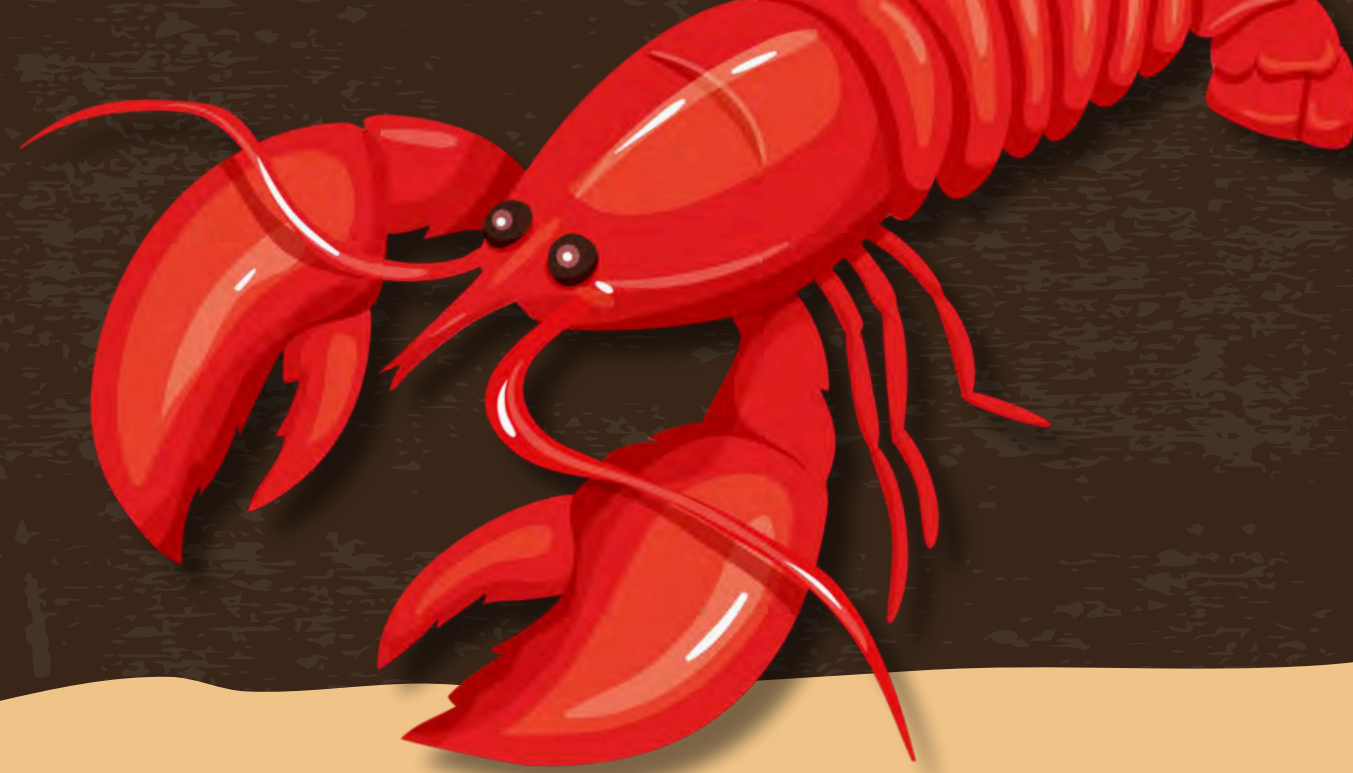
**Collaborate with  
your team!**

1. Classifying organisms

2. Mystery Items: Use Your Senses!

3. Create a Hybrid Organism

4. Build a Wooden Frog



**Complete all 4 Team Challenges  
and your class will win the Survival  
of the Fittest Competition!**



# Structures and Functions of Frogs

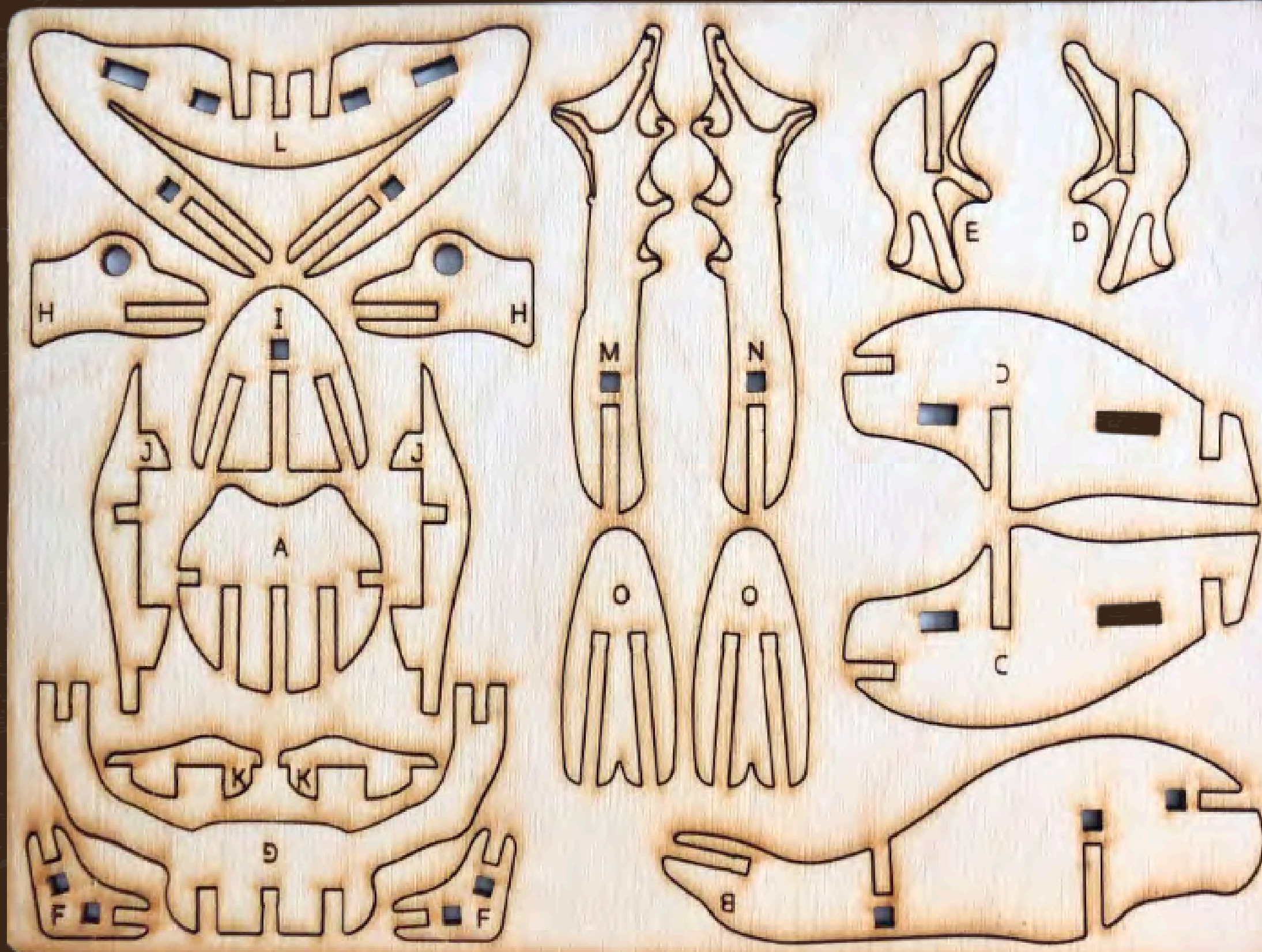


**Take Home Project:**

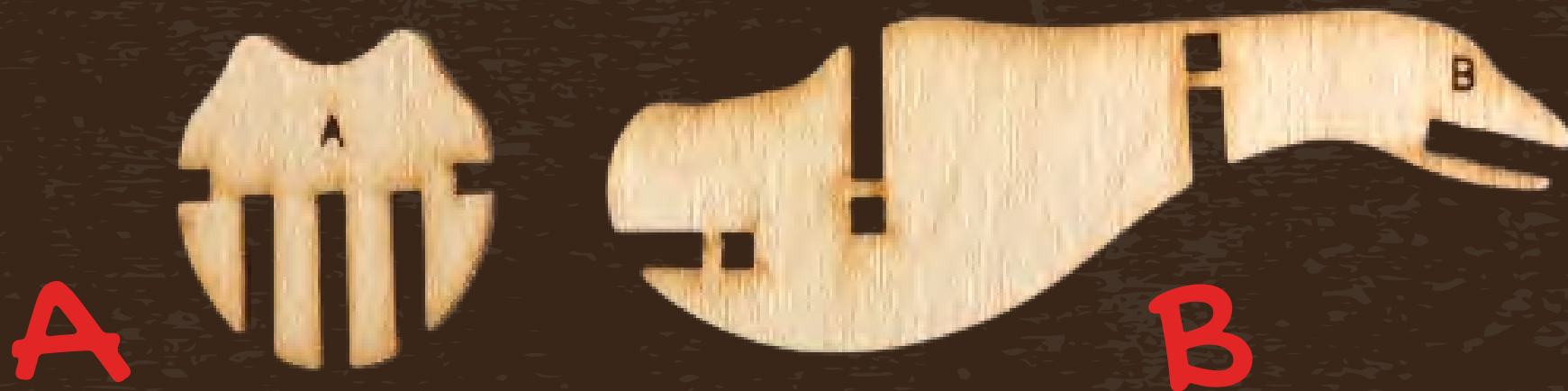
**3D Wooden Frog**



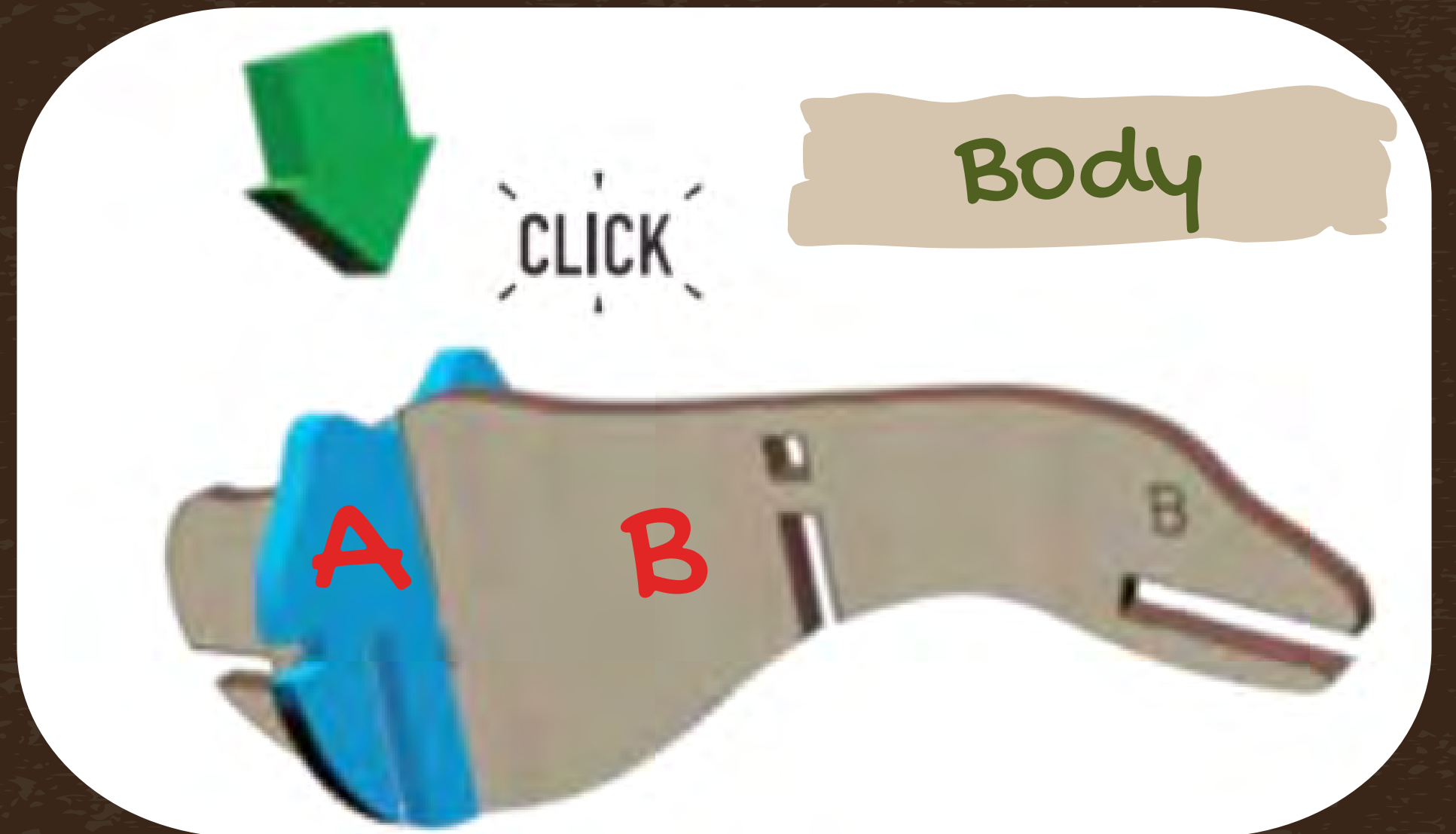
We will remove pieces as we build!



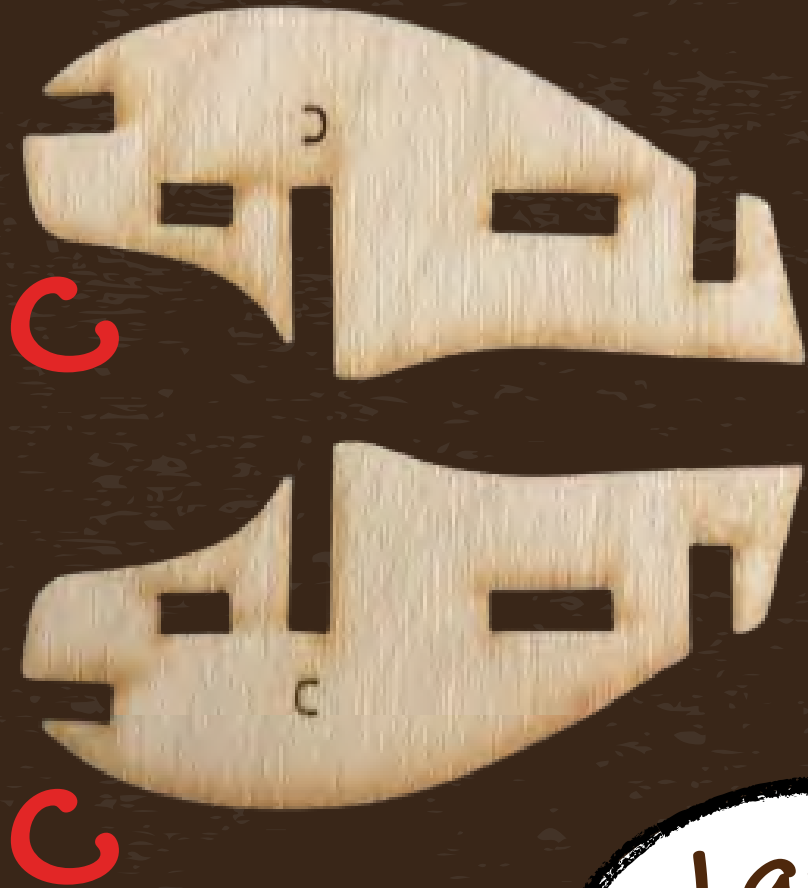
Step 1: Remove pieces A & B.  
Gently press A into B.



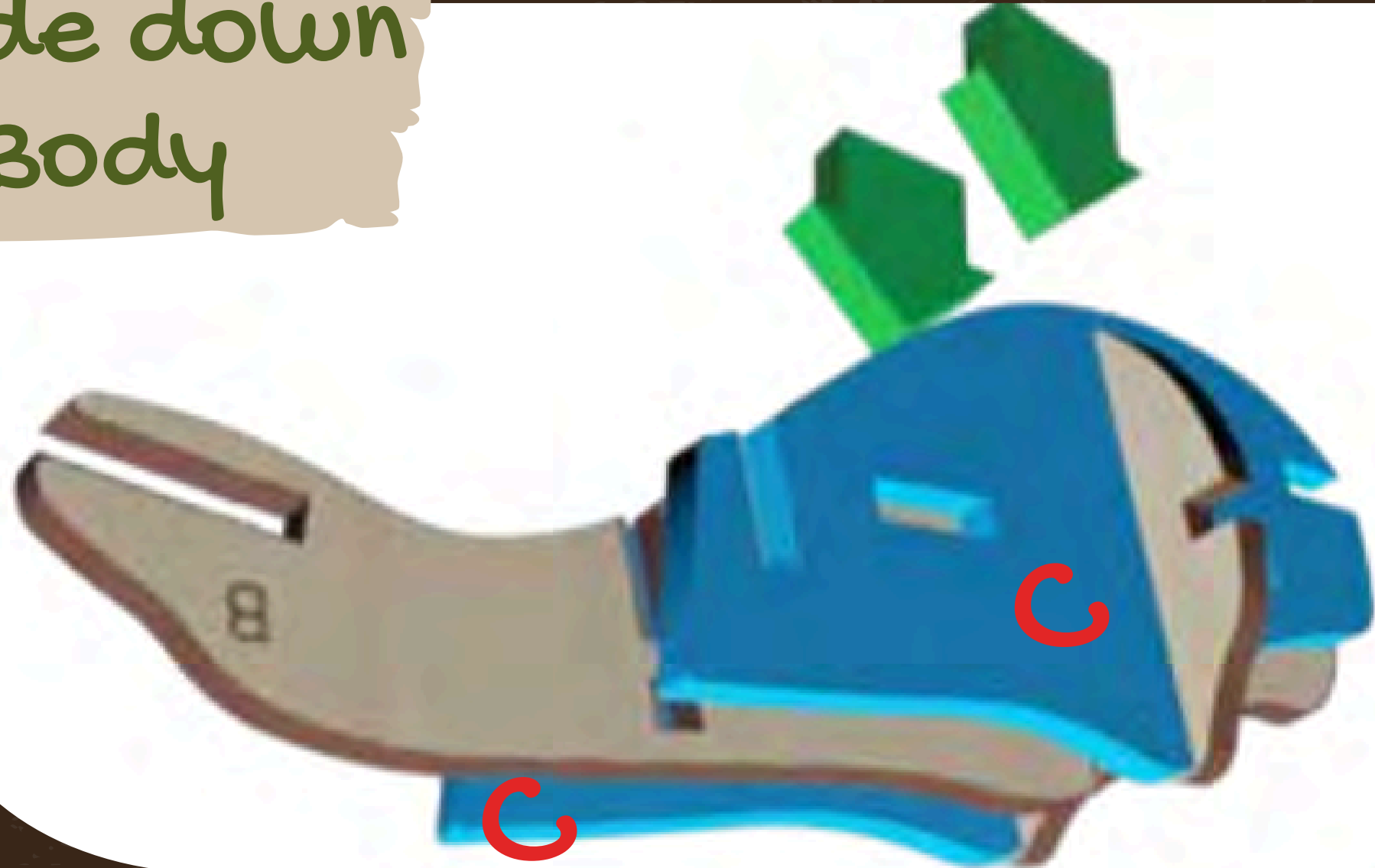
I breathe oxygen through my skin!



Step 2: Remove C pieces x 2.  
Loosely place both C pieces into B.



Upside down  
Body



I am an  
indicator  
species!



Step 3: Remove pieces D, E & F (x2). Gently press D into F and E into other F.



F



F

E



D

2 Front  
Webbed Feet

CLICK



CLICK



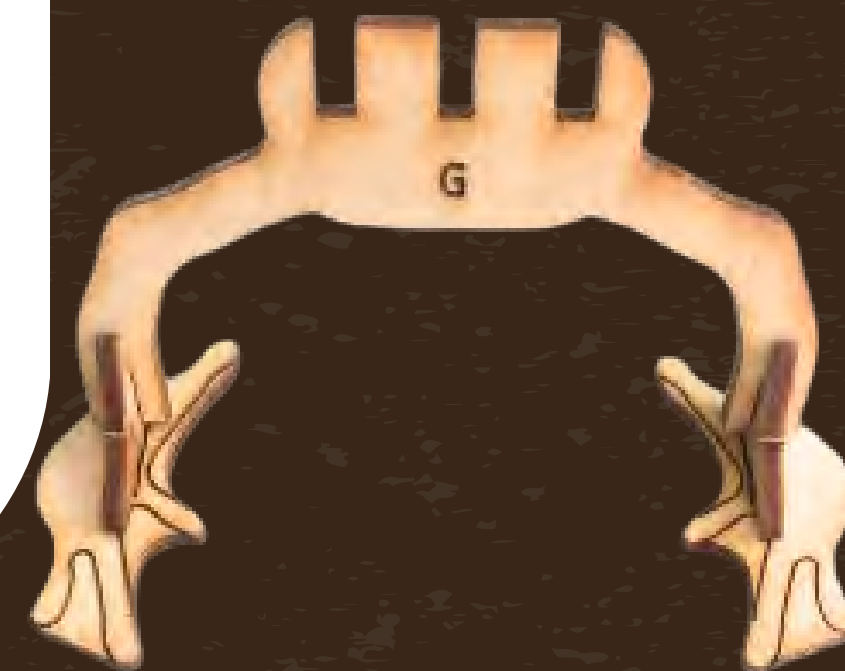
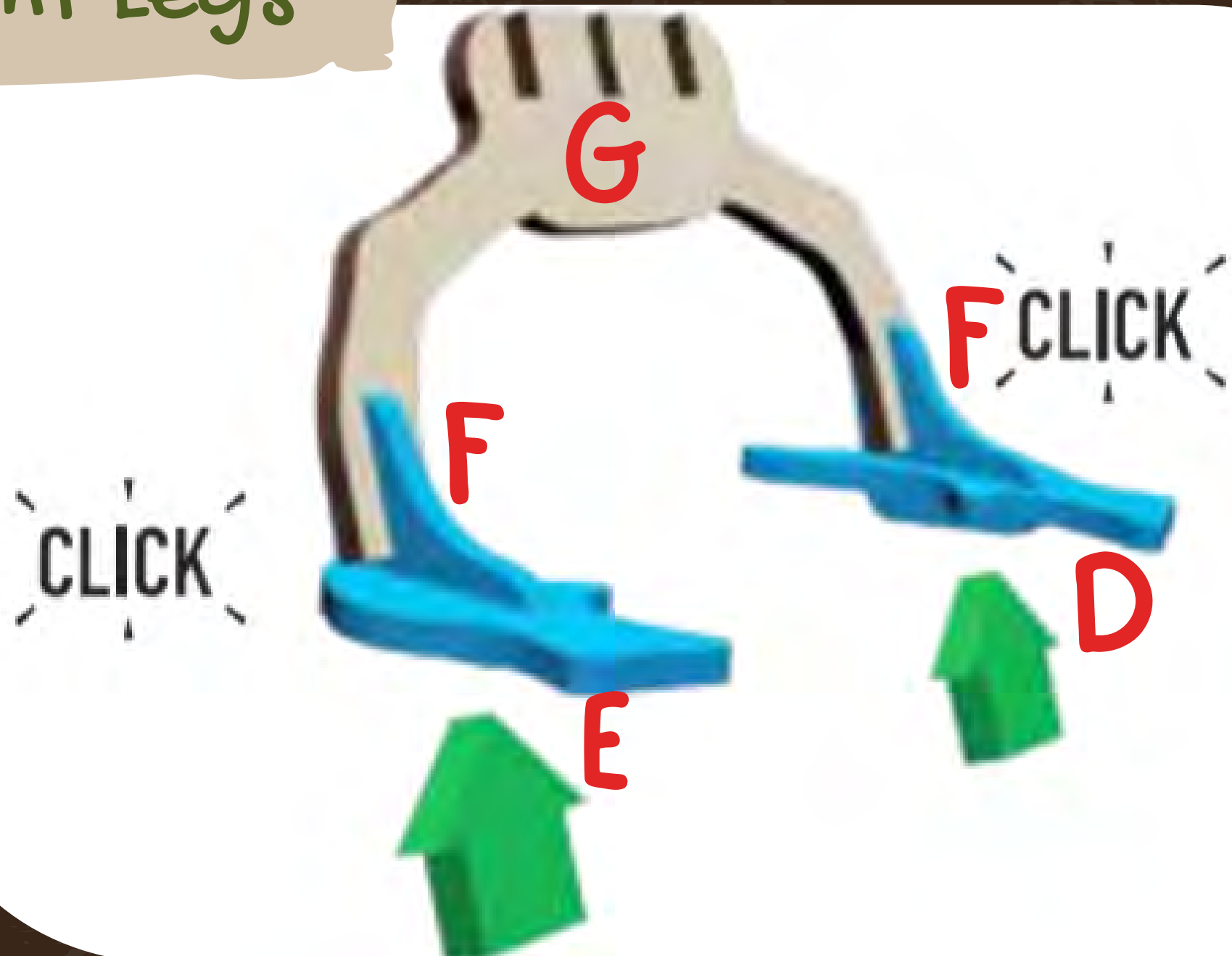
Toes  
face up



Step 4: Remove pieces G. Gently press the front feet into G.

Front Legs

My webbed feet help me swim super fast!



Step 5: Gently press the 3 slots of the front legs (piece G) into the body.

Turn Front Legs upside down



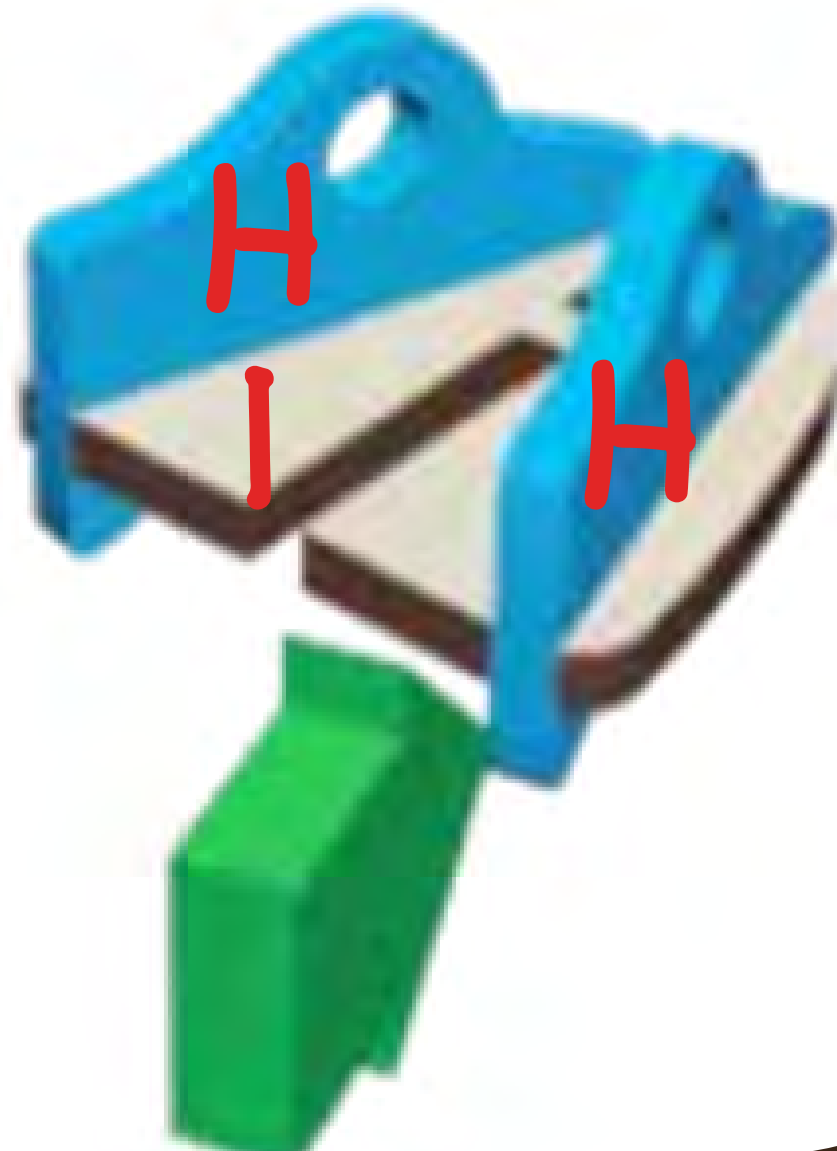
My legs help me bury in the mud!



Step 6: Remove pieces H (x2) and I.  
Gently press both H pieces into I.



Head

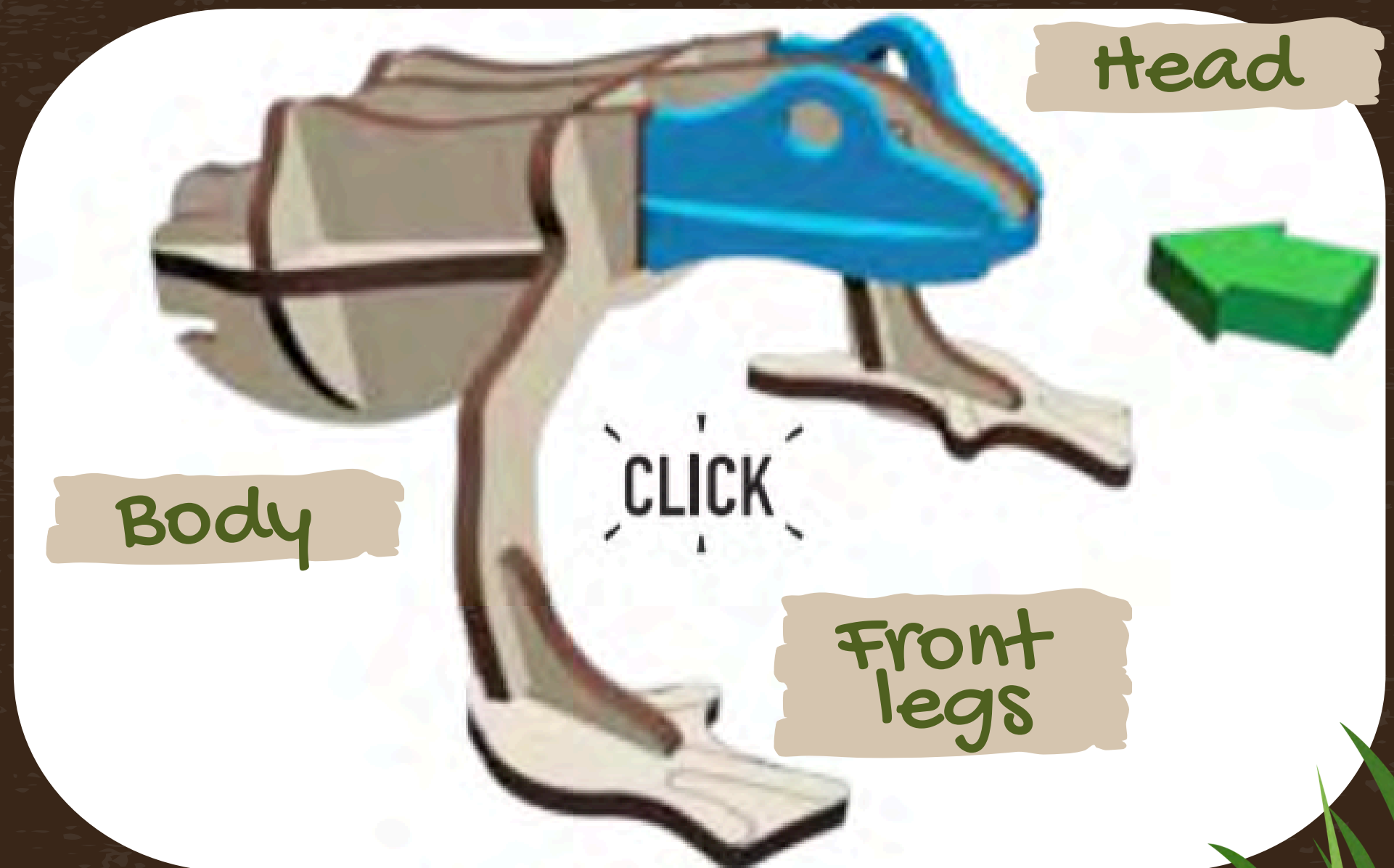


My bulging eyes can see nearly 360 degrees!



Step 7: Look for the slot on piece B.  
Gently press the head onto the body.

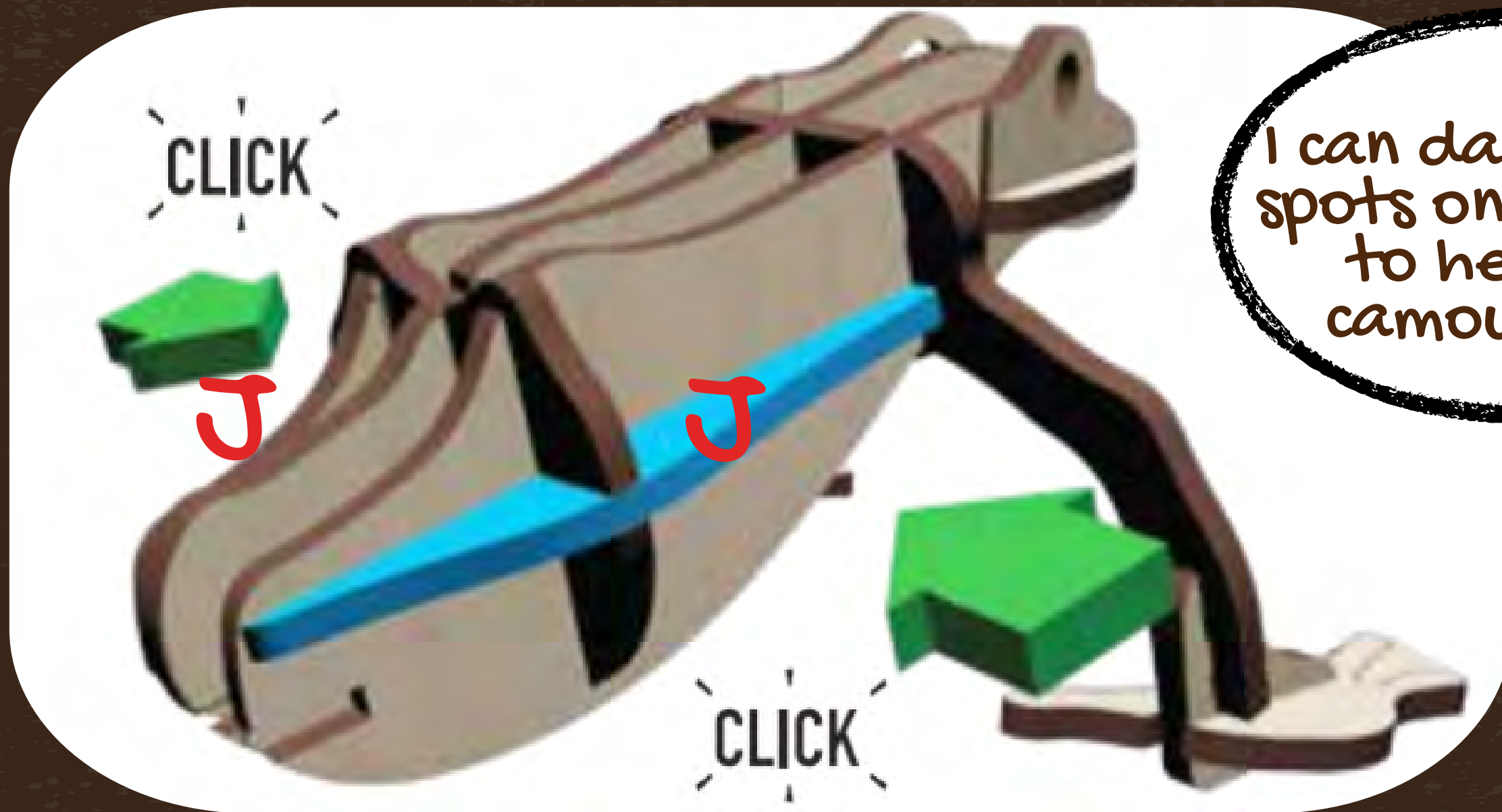
I have a third eyelid to protect my eyes - acts like goggles!



# Frog Video



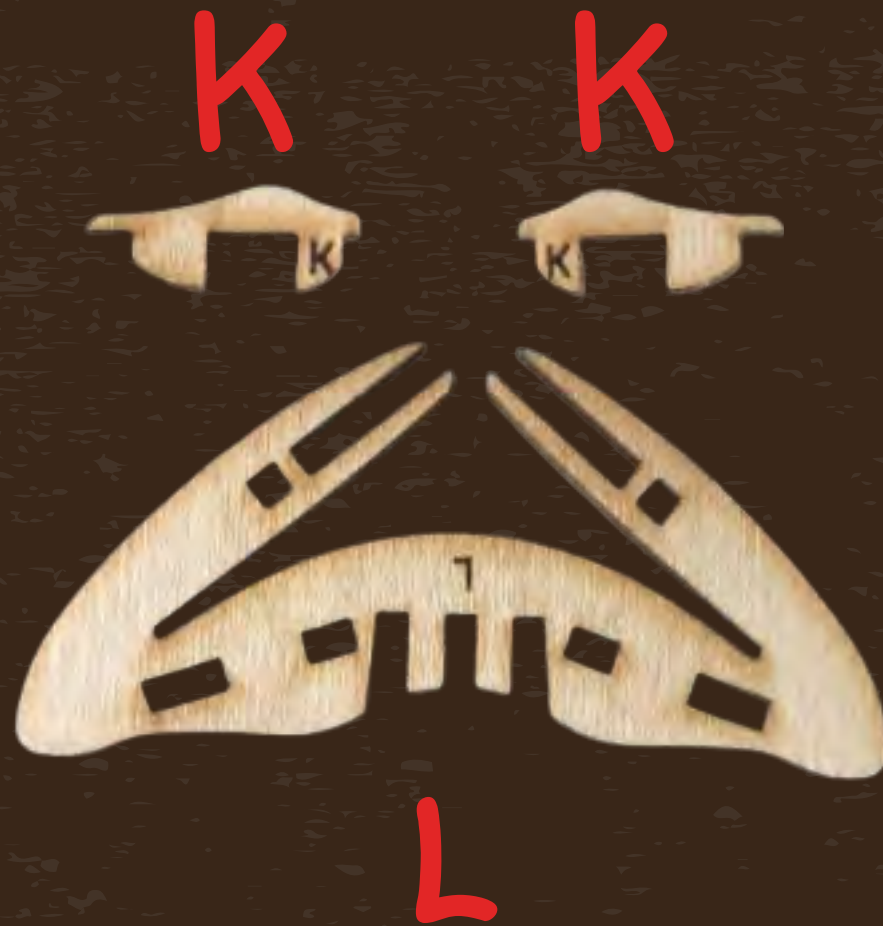
Step 8: Remove pieces j (x2).  
Gently press both pieces into the body.



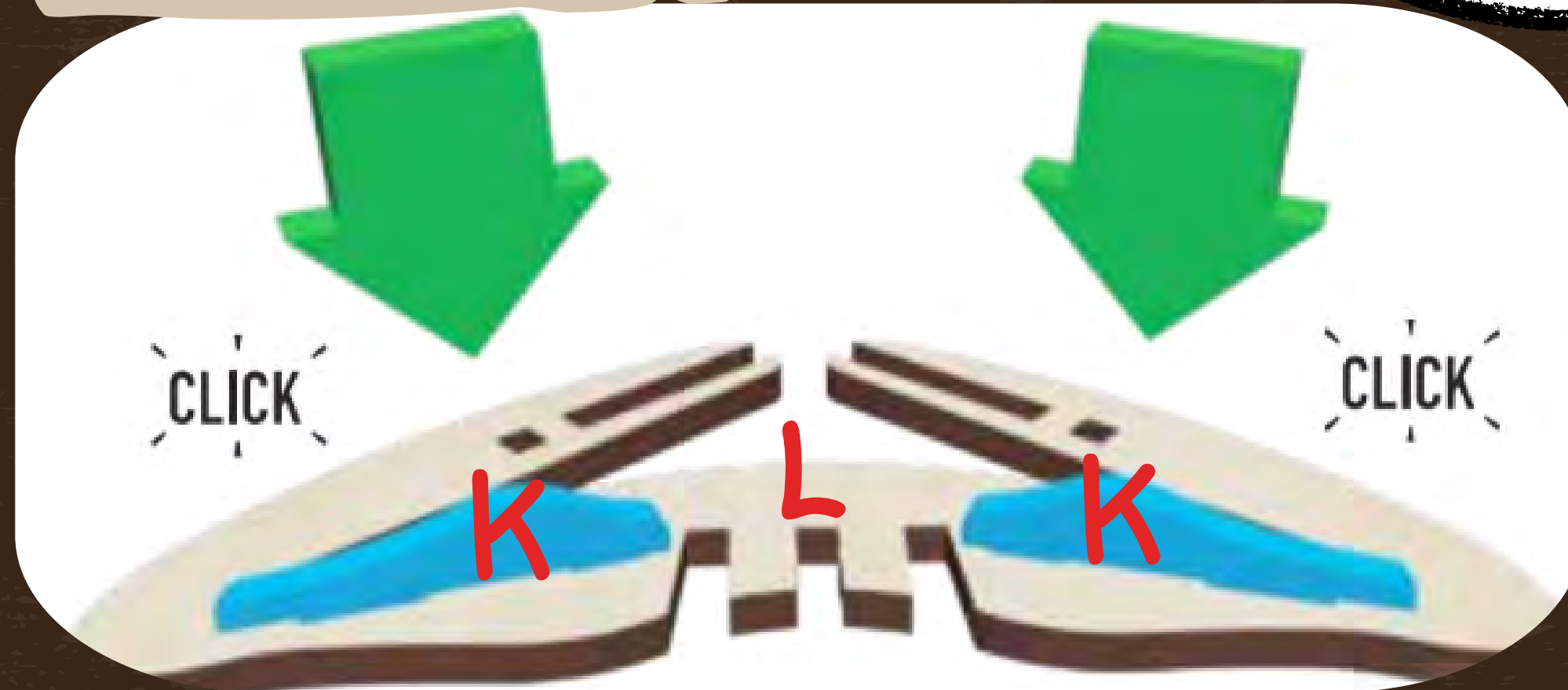
I can darken the spots on my back to help me camouflage!



Step 9: Remove pieces K (x2) and L.  
Gently press both pieces K into L.



Back Legs



My powerful leg muscles jump in a zigzag pattern!

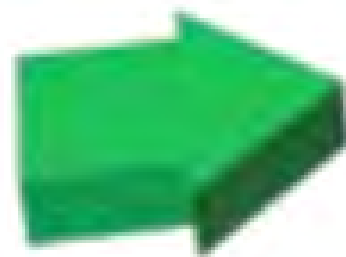


Step 10: Remove piece M and one O piece.  
Gently press M into O.

I can jump  
up to 6 feet  
(1.8 m)!



Left Back Leg



M



Step 11: Gently press the left back leg into piece L.

Left Back Leg



I jump to  
escape  
predators &  
catch prey!

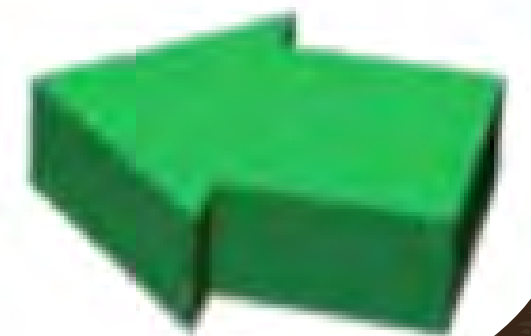


Step 12: Remove piece N and the other O piece. Gently press N into O.

Right Back Leg



CLICK



In Canada, I hibernate all winter in the water or mud!



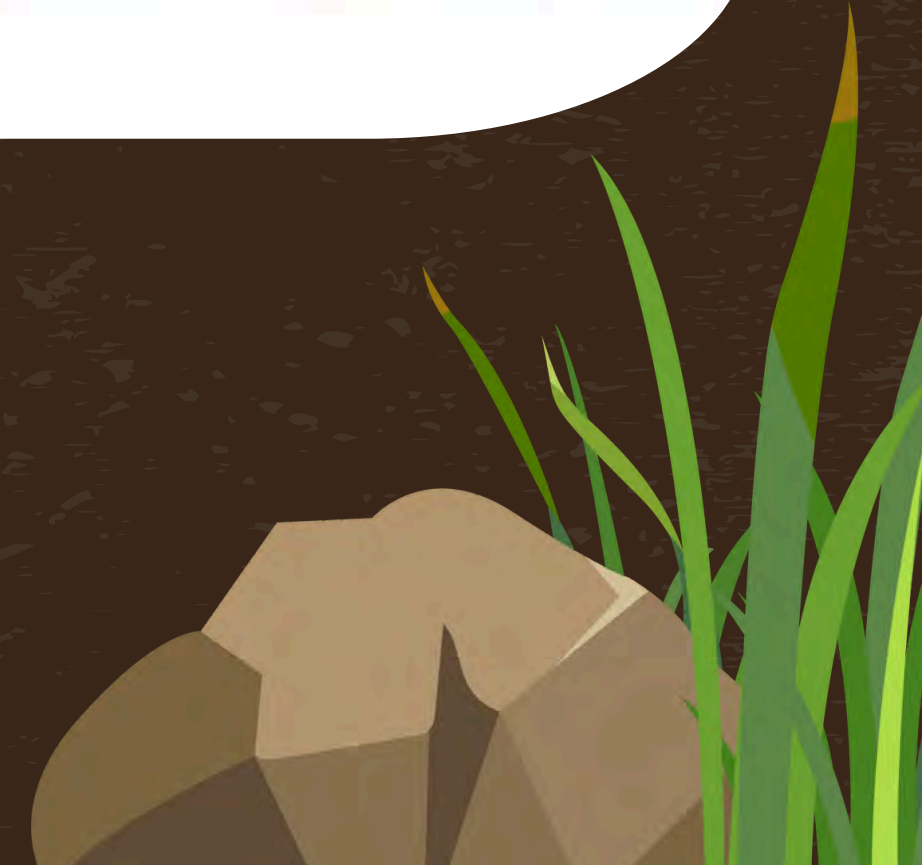
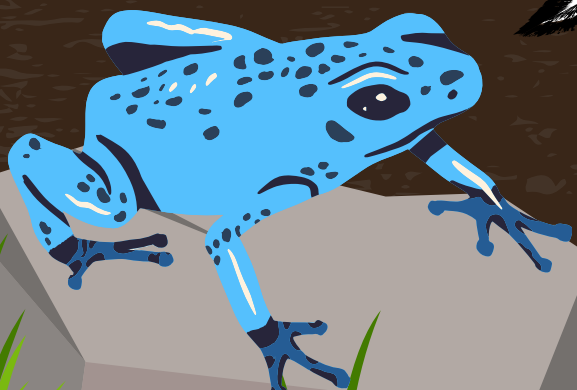
Step 12: Gently press the right back leg into piece L.

Right Back Leg



CLICK

My sticky,  
stretchy  
tongue  
catches prey!



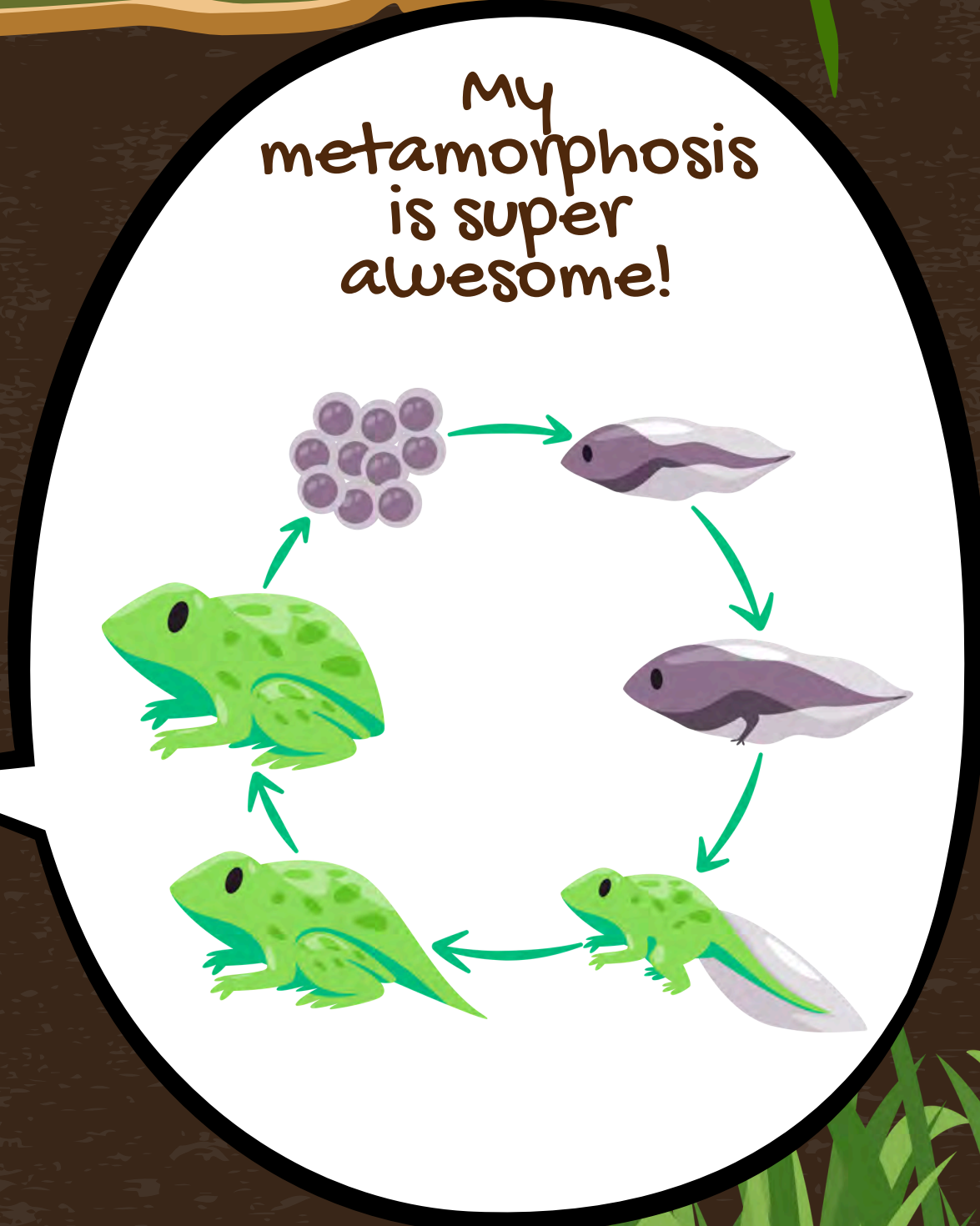
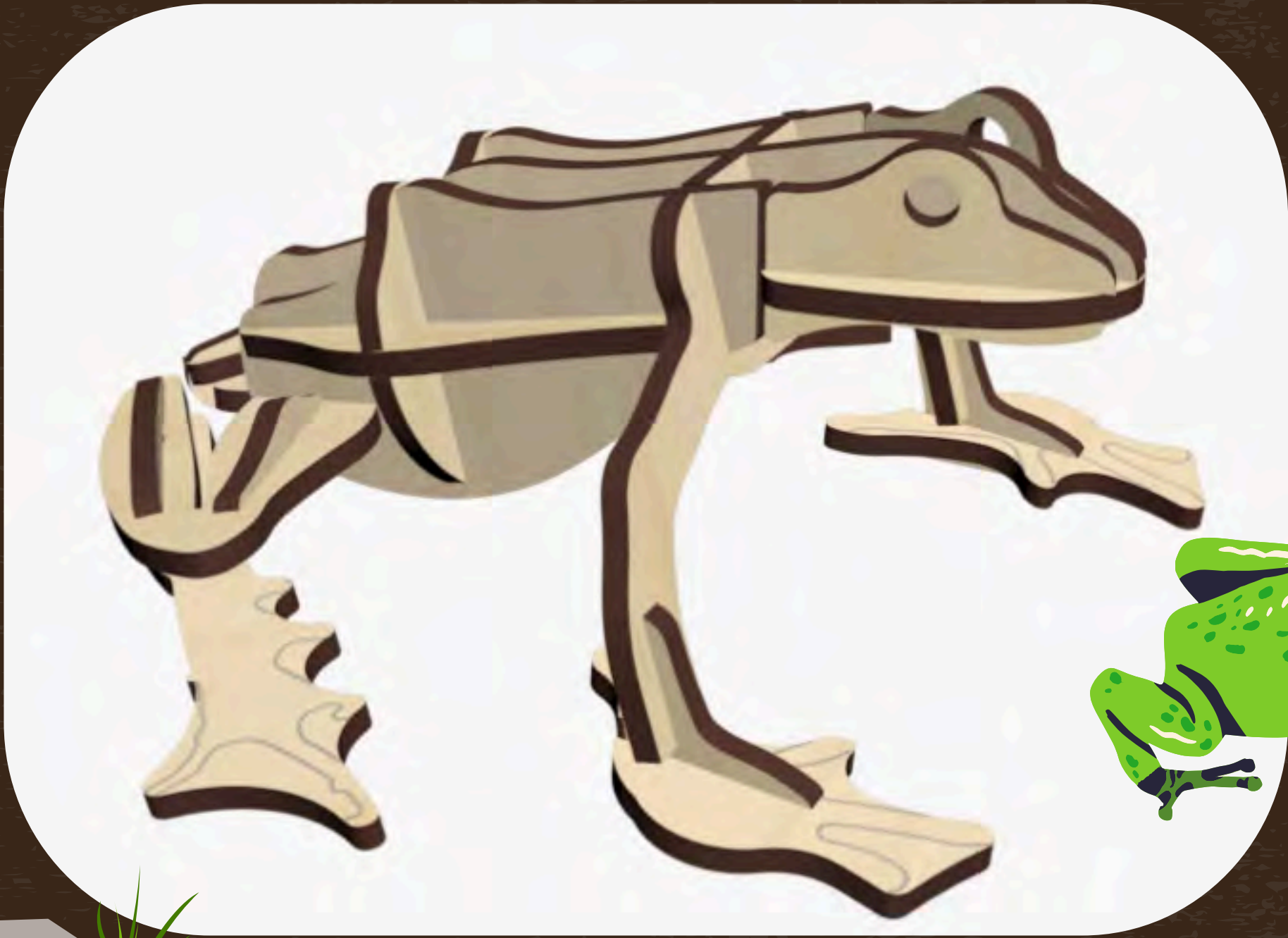
Step 13: Gently press the back legs into the body.



My sticky saliva gets thicker when I retract my tongue!



# Your frog is complete!





# Congratulations!

You are all winners of the Survival of the Fittest competition!





**Thank you!!**

