CLASSROOM PACK

Why Do We Have Thumbs?

Our Ancient Family · Episode 1

Ages 4–8 · K to Grade 2 · one lesson, 40–45 min · video about 6½ min

Today's big word

ancestor

An-ces-tor

Watch: youtu.be/rs37RgZxexg

What's inside

1. Lesson plan with pause points: 2 pages, teacher
2. Discussion guide: 1 page, teacher
3. Build It! Footprint Detectives: student sheet + teacher page
4. Vocabulary cards: colour + word-wall line version
5. Exit tickets: K and Grades 1–2
6. Answer key: teacher
7. Home note: 2 per page
8. Colouring sheets: 2 pages
9. Certificate + 12 stickers

For teachers and parents. Pages marked TEACHER are for grown-ups; STUDENT pages are for children; HOME goes home. Print in colour, or use the low-ink black-and-white version. The science is checked against the episode's sources (page 3). Connects to early-years science topics such as how young animals are like their parents, body parts and what they do, and observing and predicting.

Lesson Plan

TEACHER Episode 1: Why Do We Have Thumbs? · 1 of 2

Kids: "I can..."

- say what an ancestor is.
- tell you that all people are one big family.
- explain that chimps are our cousins, not our grandparents.
- read footprints like a scientist.

Teacher goals

- Young look like, but not exactly like, their parents; families share features.
- All living people share common ancestors (one human family).
- Humans and chimpanzees share a common ancestor (about 6–8 million years ago). People did not come from chimps; both lines kept changing.
- Change happens a tiny bit each generation, over a very long time: a branching bush, not a ladder.
- Scientists use evidence such as fossils and footprints to learn about the past.

Lesson flow (40–45 min)

Min	Part	What to do
5	**Hook: thumb warm-up**	Everyone touches their thumb to each finger. Ask: "What can your thumb do that a dog's paw can't?" Collect 3 ideas.
10	**Watch with pause points**	Play the episode. Stop at the pause points below. Each stop is short, under a minute.
7	**Discuss**	Use the after-watching questions on the discussion guide. Act out the family bush with arms (trunk, then two branches).
15	**Build It! Footprint Detectives**	Groups walk, tiptoe and run fingers or feet across sand or dough and compare the prints. See the teacher page.
5	**Exit ticket + wrap-up**	K or Grade 1–2 version. Close together: "Big ideas..." "...little by little!"

Hold That Thought: pause points

Time	Pause after	Do
0:54	after Pete says "An... ces... tor!"	Clap the syllables together. Count back: 2 parents, 4 grandparents, 8 great-grandparents... it doubles every step.
1:54	Hold That Thought! (after "Say it out loud!")	The video gives about 4 seconds. Pause longer: thumbs up for A (hand like ours) or B (paw). Don't reveal; the answer comes at 5:13.
3:00	after Pete asks "How long is a long, long time?"	Ask for guesses. Accept anything; the hallway in Zoom Out! will show it.
4:29	Pete's Mix-Up: after "Is Pete right?"	Thumbs up or down, then press play: the "NOOOO!" card comes right away (4:29–4:32), so the class can shout it with the video.
5:29	after "Thumbs high five, Lucy!"	Check the predictions: Lucy's species had hands a lot like ours, with a thumb that was a little shorter.

Times checked against the live Episode 1 video (v5, youtu.be/rs37RgZxexg). Pause at the time shown.

Lesson Plan

TEACHER Episode 1: Why Do We Have Thumbs? · 2 of 2

Materials

- Screen to play the video (6½ min)
- Trays of damp sand or play dough (1 per group of 3–4)
- Paper towels or a wipe-up bucket
- Optional: masking tape (Thumb Challenge), crayons, chart paper
- Copies: exit ticket (1 per child), home note (1 per 2 children), vocab cards (1 set)

Prep

10 min: dampen sand (it should hold a shape) or roll out dough; print and cut vocab cards; cue the video at 0:00.

Differentiation

Kindergarten: Focus on 2 ideas: an ancestor is a grandparent from long ago, and chimps are cousins. Do Build It! with hands in dough. Use the picture exit ticket, read aloud.

Grades 1–2: Add the evidence idea: how do footprints tell us how someone moved? Children record walk/tiptoe/run on the student sheet and write or draw one sentence.

English language learners: Pre-teach 4 cards (ancestor, family, cousin, footprint) with gestures. Use sentence frames: “My ancestor is ___.” “Running prints are ___.” Invite home-language words for grandma and cousin.

Extension: Make a classroom ‘family bush’ on chart paper: one trunk, branches for people, chimps and gorillas. Talk about why it is not a ladder.

Accuracy notes for grown-ups

- Lucy (Australopithecus afarensis), found at Hadar, Ethiopia in 1974, lived about 3.2 million years ago and stood about 1.1 m (3½ ft). Her hips and legs show upright walking; long arms and curved toes show she also climbed.
- Laetoli footprints (Tanzania): made in damp volcanic ash about 3.66 million years ago (the video's on-screen caption says about 3.7).
- People and chimps share an ancestor that lived about 6–8 million years ago (the video's caption says 6–7). Say “cousins”, never “we came from chimps”. Draw a branching bush, not a ladder.
- Modern humans appear about 300,000 years ago; writing only about 5,000 years ago.
- “A thumb a little shorter”: hands of Lucy's species were close to ours; studies differ on whether the thumb was slightly shorter.

Sources

- humanorigins.si.edu (Smithsonian: Lucy, Laetoli, Genetics); nhm.ac.uk (Lucy's species).
- Raichlen et al. 2010 PLOS ONE doi:10.1371/journal.pone.0009769; Alba et al. 2003 J Hum Evol doi:10.1016/S0047-2484(02)00207-5; Rolian & Gordon 2013 AJPA doi:10.1002/ajpa.22365.

Assessment

Exit ticket (K picture version or Grades 1–2) at the end of the lesson; answers on the answer key. Look-fors: uses the word “ancestor”; says chimps are cousins; links deep or far-apart prints to running.

Discussion Guide

TEACHER Episode 1: Why Do We Have Thumbs?

Before watching

1. Wiggle your thumb! What can you do with it that a dog's paw can't?
2. Who is the oldest person in your family you know about? Who was their grandma?

After watching

3. What is an ancestor? Can you name one of yours?
4. Maye says everybody in the world is one big family. What does she mean?
5. Pete said, “We came from chimps.” What was his mix-up?
6. How do scientists know Lucy walked on two legs?
7. What can footprints tell you about how someone moved?

Pete's Mix-Up: a 3-minute script

Teacher: Pete said we came from chimps. Thumbs up if you agree, thumbs down if you don't.

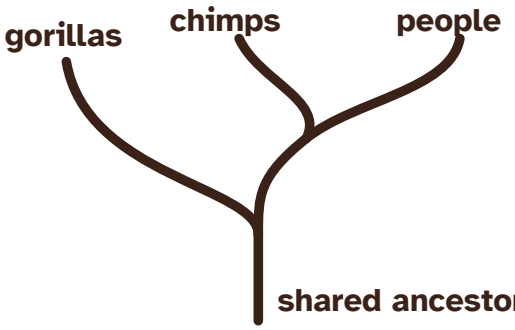
Teacher: Do you have a cousin? Did you come from your cousin? (No!) You share a grandma.

Teacher: Chimps are still here. They are our cousins. Long, long ago, people and chimps shared one ancestor. Then the family split into branches, and both branches kept changing.

All: Mix-ups are how we learn!

Talk move: If a child says “monkeys turned into people”, don't say “wrong”; say “That's Pete's mix-up! Who remembers what Maye said?”

Draw the family bush



One trunk splits into branches; every branch keeps growing. Chimps are on a branch next to ours, not below us. Avoid ladders or a “march” of figures from ape to human.

Build It! Footprint Detectives

STUDENT Episode 1: Why Do We Have Thumbs?

Name: _____

You need: ☐ a tray of damp sand or play dough ☐ a grown-up helper ☐ crayon or pencil

Grown-ups: check for wheat allergies before using dough. Dough is not for eating. Wash hands after.

1. Walk slowly across the sand. Look at your prints.
2. Now tiptoe across. What changed?
3. Now run! (Carefully, with your grown-up.)
4. Compare your prints.

	Deep or light?	Close or far apart?
Walk		
Tiptoe		
Run		

Draw your running print:

Scientists read very old footprints the same way, to learn how our ancestors walked!

Build It! Teacher Page

TEACHER Episode 1: Why Do We Have Thumbs? · 15–20 min

Set-up

Groups of 3–4, one tray each. Sand should hold a shape when squeezed. Indoors, children can ‘walk’ two fingers across dough instead of feet.

Safety: Wipe up spilled sand at once (slippery). Running only on a short, clear path, or use fingers. Check for food allergies before using homemade dough (wheat).

What to notice

- Walking prints: whole foot, fairly even depth, close together.
- Tiptoe prints: mostly the front of the foot, little or no heel.
- Running prints: deeper at the front (toes and ball of the foot) and farther apart.

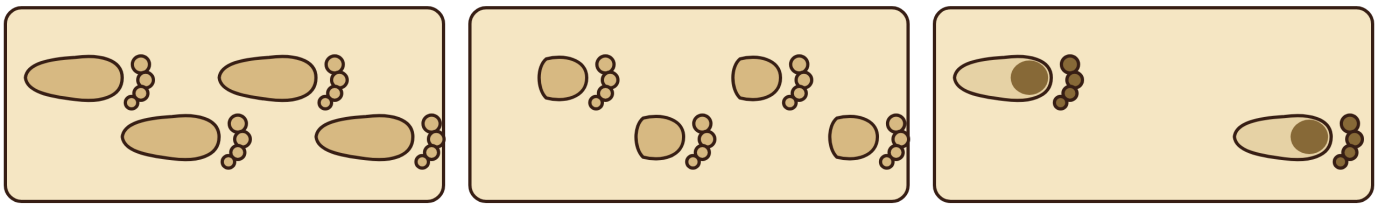
The science link: The Laetoli prints show a big toe in line with the other toes and a heel strike, like ours: evidence that the walkers moved upright on two legs.

Questions to ask

- What made this print deeper?
- If you found these prints, what would you guess the person was doing?
- How is this like what scientists did at Laetoli?

Extension and at home

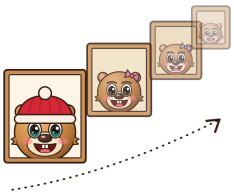
Thumb Challenge: loosely tape a thumb to the side of the hand (never tight), try a button, a spoon and a crayon, then remove the tape right away. At home: compare family members' footprints on a damp towel or at the beach.



Vocabulary Cards

Episode 1: Why Do We Have Thumbs? · cut along the dashed lines

✂ cut



ancestor

a grandparent from long, long ago



family

people who are related, like parents, grandparents and cousins



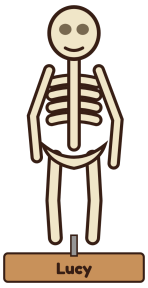
cousin

family who shares a grandma with you



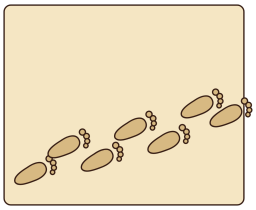
chimpanzee

an ape that is one of our cousins (chimp for short)



fossil

bones or prints from long ago, saved in rock



footprint

the mark a foot leaves behind



scientist

a person who asks questions and looks for clues



thumb

the short, strong finger that helps you grab

Word Wall Cards

Episode 1: Why Do We Have Thumbs? · big print, low ink

✂ cut

ancestor
a grandparent from long, long ago

family
people who are related, like parents, grandparents and cousins

cousin
family who shares a grandma with you

chimpanzee
an ape that is one of our cousins (chimp for short)

fossil
bones or prints from long ago, saved in rock

footprint
the mark a foot leaves behind

scientist
a person who asks questions and looks for clues

thumb
the short, strong finger that helps you grab

Exit Ticket: Kindergarten

STUDENT Episode 1: Why Do We Have Thumbs? · read each one aloud

Name: _____

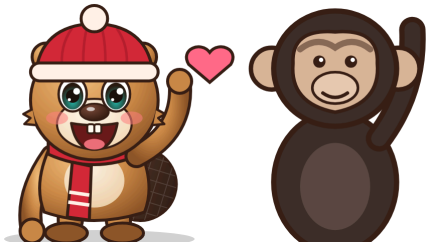
1. Circle the RUNNING footprints.



2. Chimps are our... (circle one)



grandparents



cousins

3. Draw someone in your family. Who is the oldest?

Exit Ticket: Grades 1–2

STUDENT Episode 1: Why Do We Have Thumbs?

Name: _____

1. Match the word to what it means.

ancestor •	• family who shares a grandma with you
fossil •	• a grandparent from long, long ago
cousin •	• bones or prints saved in rock

2. True or false? Circle T or F.

Chimps turned into people.	**T**	**F**
Lucy walked on two legs.	**T**	**F**
Go back far enough, and all people are one family.	**T**	**F**
Lucy lived when Grandma was a little girl.	**T**	**F**

3. How are running footprints different from walking footprints? Draw or write.

Answer Key

TEACHER Episode 1: Why Do We Have Thumbs?

Exit ticket: K

1. The prints that are farther apart with dark (deep) toes, on the right.
2. cousins
3. Any family drawing. Listen for ‘grandma/grandpa’ or ‘older’. No wrong answers.

Build It! expected results

Walk: whole foot, even, close. Tiptoe: front only, no heel. Run: deep at the front, far apart.

Exit ticket: Grades 1–2

1. Match

- ancestor → a grandparent from long, long ago
- fossil → bones or prints saved in rock
- cousin → family who shares a grandma with you

2. True or false

a. False. Chimps are our cousins; both branches kept changing.

b. True.

c. True.

d. False. Lucy lived long, long ago, more than a hundred thousand grandmas back.

3. Explain

Running prints are deeper at the front and farther apart (bigger steps). Accept either idea for full marks.

Discussion: model answers (after watching)

3. An ancestor is a grandparent from long, long ago (e.g., a great-grandma).
4. If you go back far enough, every person shares the same ancestors.
5. Chimps are our cousins. We share an ancestor; we didn't come from them.
6. Her bones (hips and legs) show she walked upright.
7. How fast someone moved, how big they were, and whether they walked on two feet.

Quick rubric. Got it: uses “ancestor” and “cousin” correctly and links print depth or spacing to running. Getting there: one of these. Not yet: re-watch Pete's Mix-Up (4:29) together.

A note from school HOME

Today we watched Maye & Pete, Episode 1: Why Do We Have Thumbs? We learned that an ancestor is a grandparent from long, long ago, that all people are one big family, and that chimps are our cousins, not our grandparents.

Ask at dinner: Who is the oldest person in our family we know about? Who was their grandma?

Try it: Footprint fun (5 min): on a damp towel or at the beach, walk, tiptoe and run. Which prints are deepest at the front?

Watch together: https://youtu.be/rs37RgZxexg

Have a question your child wonders about? A grown-up can send it to us at mayeandpete.com. Please don't include your child's name or other personal details.

✂ cut

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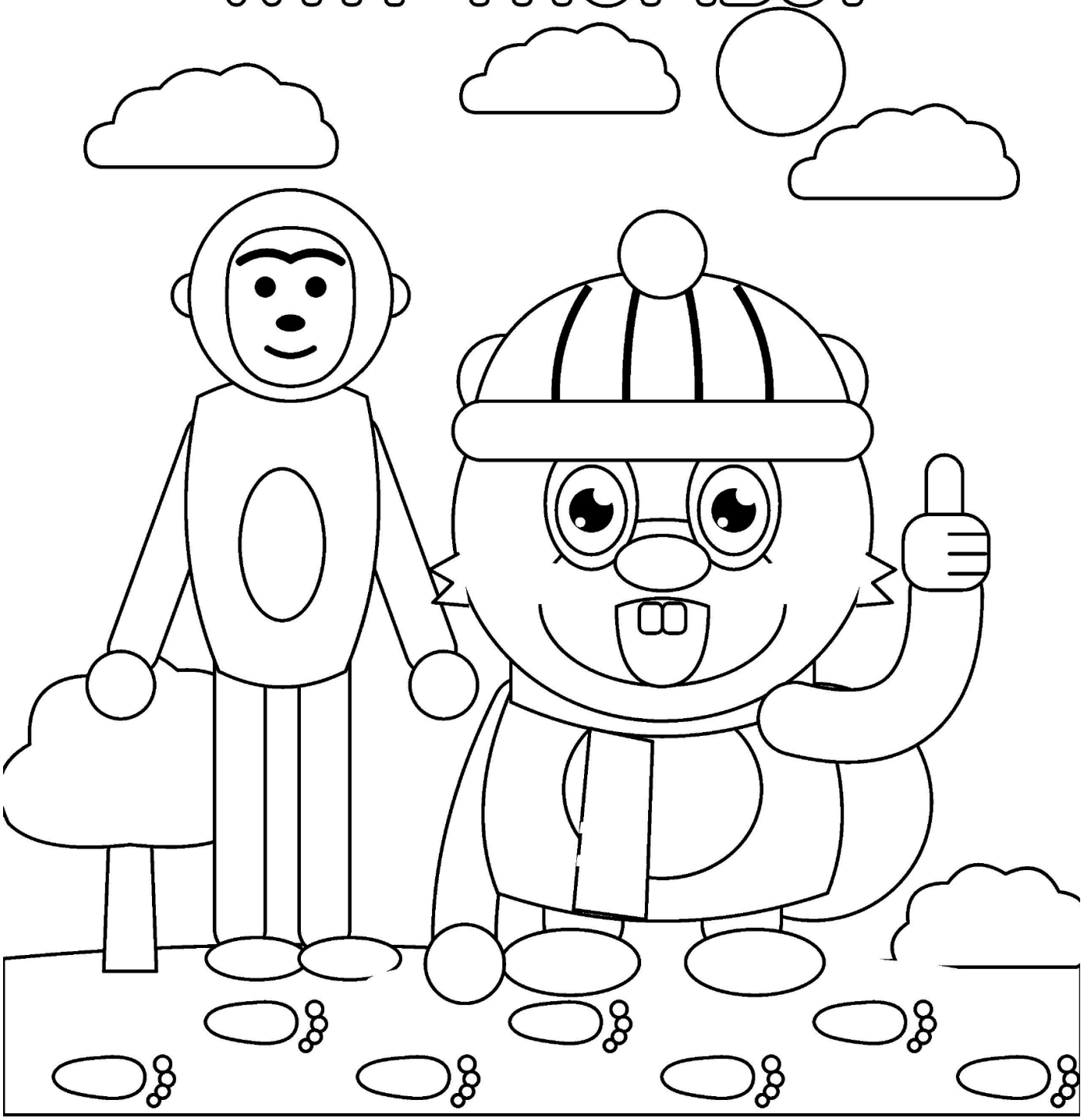
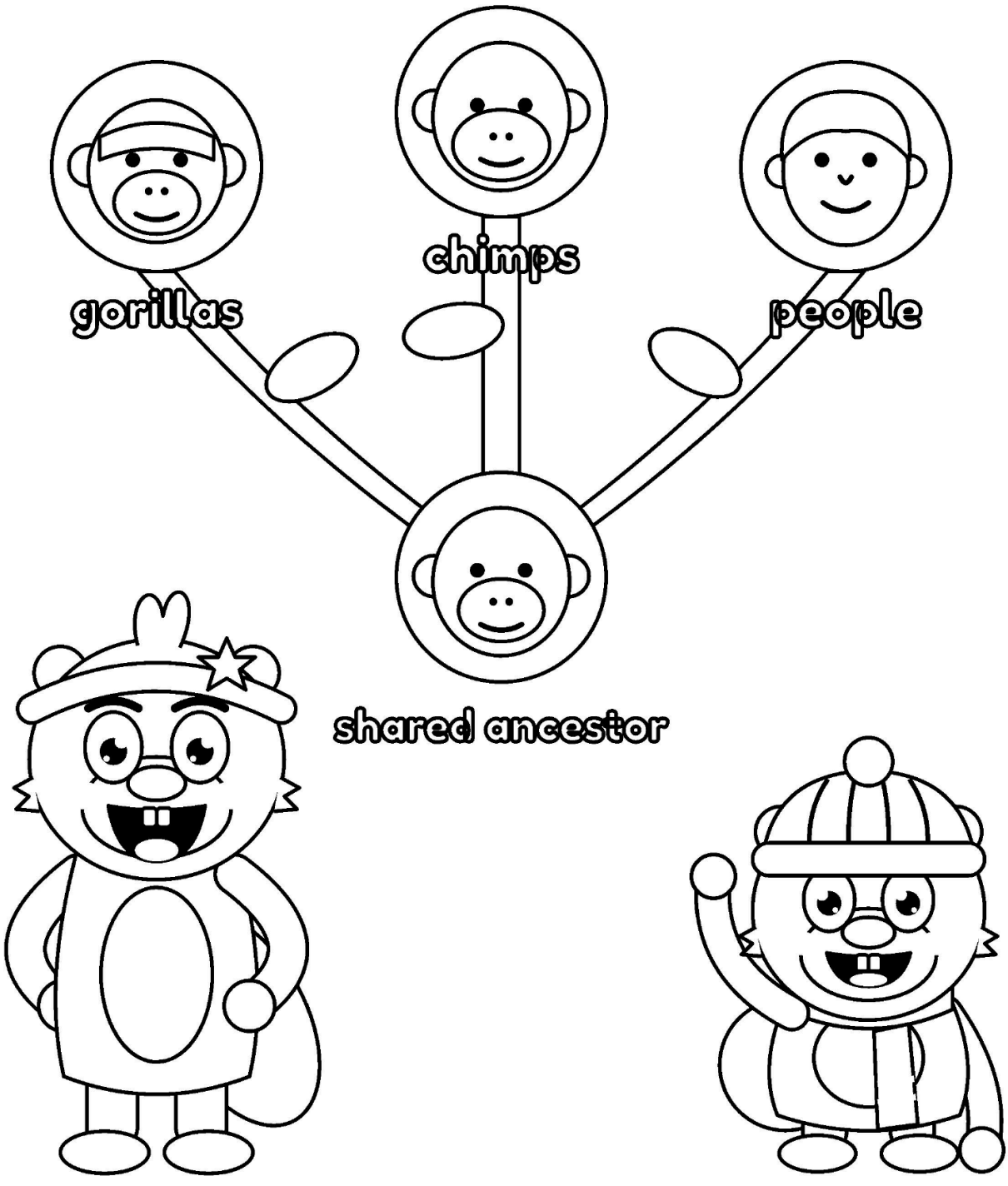
WHY THUMBS?



mayeandpete.com

ONE BIG FAMILY!



mayeandpete.com

Big Idea Explorer

This certificate is for

_____

who learned about **ancestors** and read footprints like a scientist!

Episode 1: Why Do We Have Thumbs? · Date: _____

Big ideas, little by little

✂ stickers: print on plain paper or sticker paper and cut out

Big Idea Explorer	Footprint Detective	I met my ancestors!	Thumbs up!
Mix-ups are how we learn	Little by little	One big family	Chimps are cousins!
Fossil Finder	I asked a big question	An-ces-tor!	Maye & Pete Fan