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.

