**Ask An Anthropologist**
activity for classroom and home

by **Amy Peterson**


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## About the Author

**Amy Peterson** is a graduate student with the Institute of Human Origins at Arizona State University. Her research interests include paleoanthropology, functional morphology, and the evolution of the pelvis in early hominins.

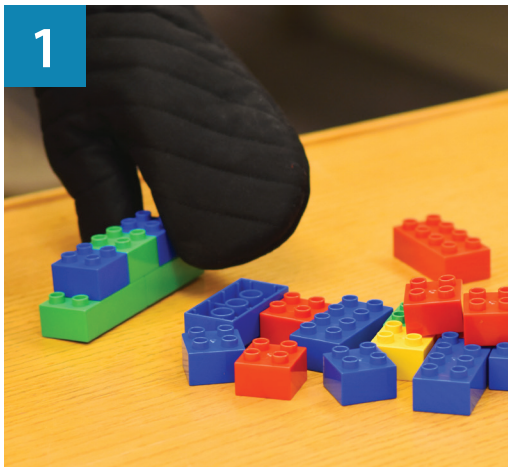
## Learn More

This is a companion PDF for the online article:

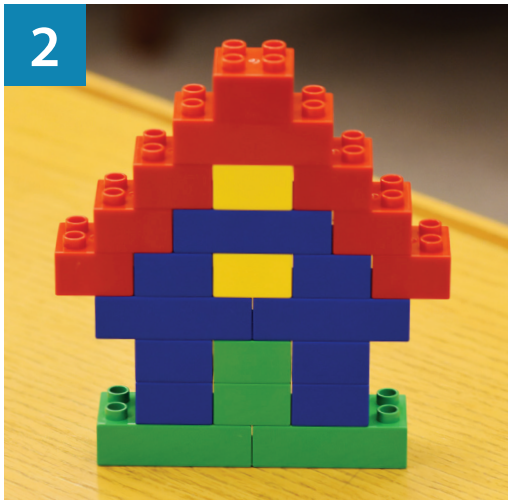
**Hand Made**
**askananthropologist.asu.edu/experiments/hand-made**

# Build a House

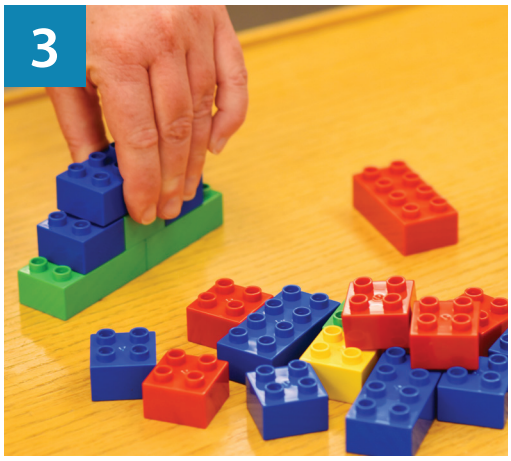
## Can you build with toy bricks—wearing oven mitts?




Put on a pair of oven mitts.




Try to build a bouse out of the big toy bricks, like the one shown in the picture.




Now, try building without the mitts. Is it easier, or harder?

# Human hands are adapted to let us do many things.

**Our fingers let us do many things, easily and precisely.** We can get food, make tools, and play with toys. When you put on mitts and tried to build a structure, you got a sense of how hard it would be to do human things if our hands were shaped differently.

Many other animals don't have hands like we do. They might have paws, hooves, or fins, which are better suited to the places they live and the things they do to survive. For example, dog paws and horse hooves are adapted for running quickly. They're much faster than we are, but they can't do delicate work with their "hands" like we can.

Chimps have hands similar to ours. Image credit: Roland via Wikimedia

Our closest living relatives, chimpanzees, have hands and feet that are similar to ours, but with some key differences. Chimps use their hands when they walk on the ground, which is called knuckle walking. So, chimps have thicker finger bones and stiffer wrists to support their weight. They spend a lot time in trees, so they have opposable toes (like thumbs) on their feet that let them easily climb and hold onto branches.

This hand of *Ardipithecus ramidus* is the most complete example in the early hominin fossil record. Image credit: Bjoertvedt via Wikimedia

**The human body has evolved through time in response to our environment.** Before human hands evolved to their modern form, our hominin ancestors began walking upright. This left their arms and hands free to carry things and make tools. Tools provided our ancestors with a great advantage, and so human hands—and brains—continued to evolve to allow tool use.

# Facilitator Guide

## Learning objectives

1. Human hands are adapted to let us do many things.
2. Our fingers let us do many things, easily and precisely.
3. The human body has evolved through time in response to our environment.

## Materials

- Pair of oven mitts
- Pair of mittens
- Toy building bricks in large and regular sizes (Lego® and Duplo® or similar)
- This activity guide
- Table sign

## Notes to presenter

When presenting to younger audiences, larger building bricks work well.

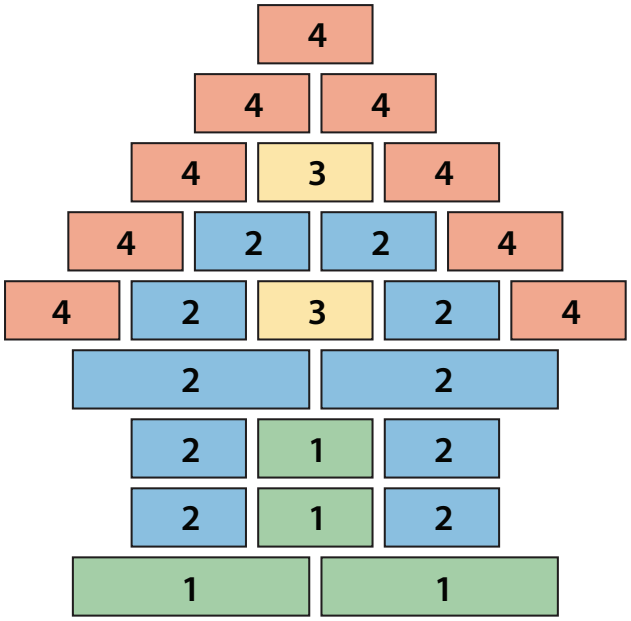
Smaller bricks may make this activity more challenging for older audiences.

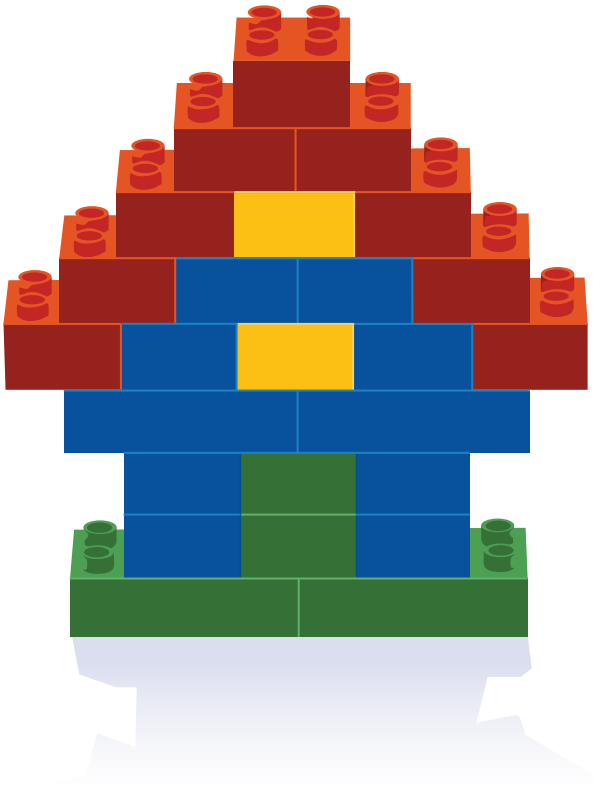
## Safety

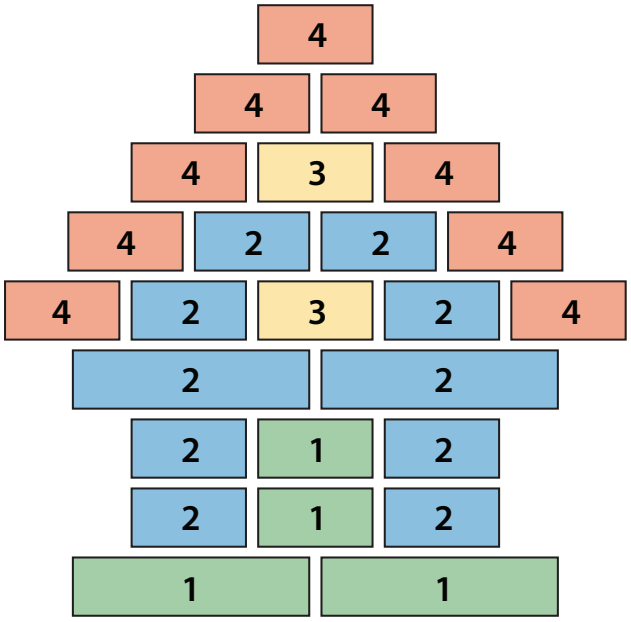
Supervise young participants at all times to ensure they do not place toy bricks in their mouth. Building bricks may present a choking hazard.

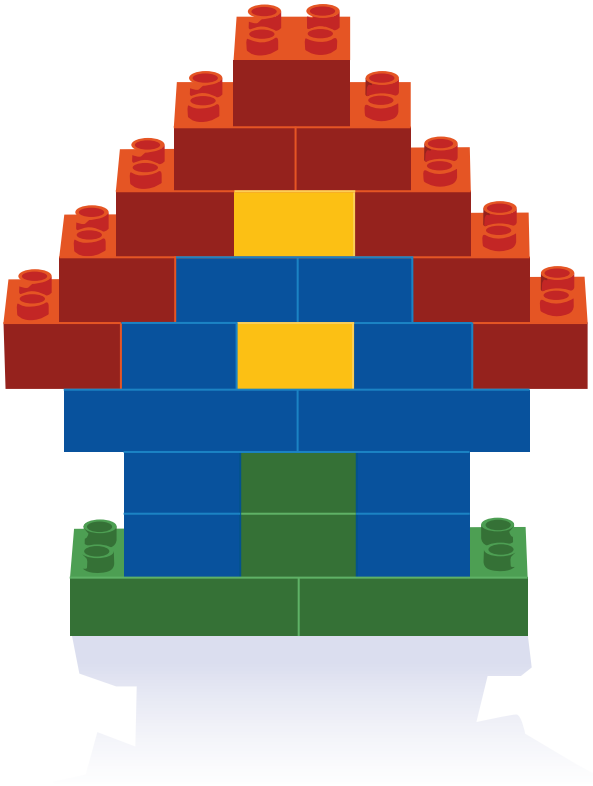
## Credits and rights

This activity was adapted from Exploring Tools: Mitten Challenge.





For teachers: print these diagrams out and pass around for students to use as a building guide