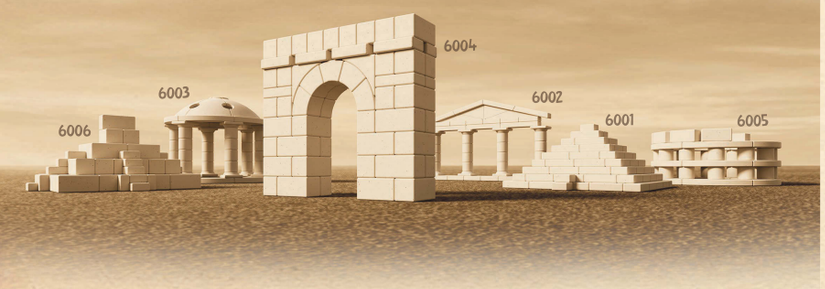


Discover other ancient building techniques with the Arch-Kid-Tech® series.



@taksatoys

www.| europe.taksatoys.com

Updated digital version – October 2026
Some earlier printed copies contain factual inaccuracies. This downloadable version has been reviewed and updated to correct those points.

Travel back to ancient Rome. In 27 BCE, the Roman Republic gave way to the Roman Empire under Augustus. Over the centuries that followed, Roman rule spread across large parts of Europe, North Africa, and western Asia. Roman builders learned from Greek, Etruscan, and other traditions, then adapted those ideas in their own way. Roads, aqueducts, sewers, public baths, Roman concrete, vaults, and arches all became hallmarks of Roman building.



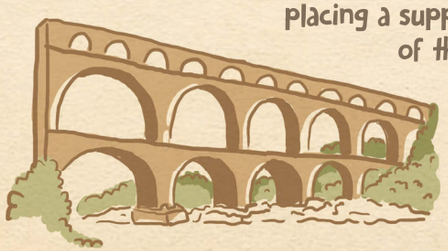




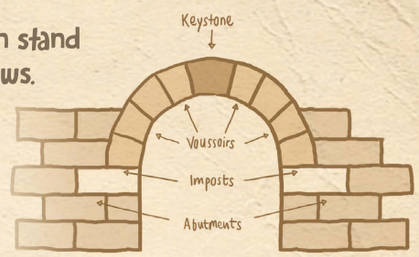
Arches were already being built long before Rome: examples appear in Mesopotamia in the second millennium BCE. Roman builders refined the true arch and used it on an extraordinary scale—in bridges, aqueducts, gateways, amphitheatres, baths, and basilicas. By combining arches with concrete and careful engineering, they could span wider openings and create large, durable structures that still shape how we think about Roman architecture today.



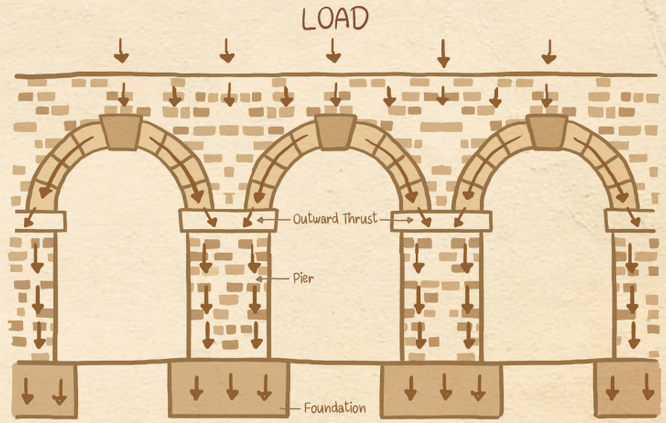
Arches are still used because they can carry loads across an opening and transfer those forces into supports at the sides. In an arch bridge, this can help span a river or road without placing a support beneath every part of the opening. Look at the bridges around you: where do you think the weight travels?



A well-built block arch can stand without glue, nails, or screws. The wedge-shaped blocks press against one another, carrying the load around the curve of the arch and down into the supports. Masonry is especially good at carrying compression, but the supports have an important job too: they resist the outward thrust of the arch.



The keystone closes the arch at the top, but every block —and both supports—work together to keep the structure stable. Add more load and the compression increases, but too much or uneven load can make the arch unstable.



Challenge Time!
Build your arch, then gently place a book on top. Does it stay stable? Try changing the spacing of the supports or the position of one block, then test it again. What changes —and why?

Ready to build your own ancient-inspired structure?

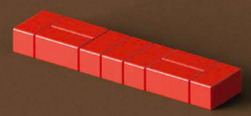
Find these pieces and let's start building!

39X 12X 4X

10X 4X

1

9X



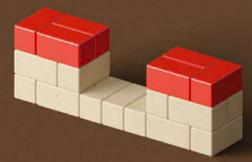
2

6X



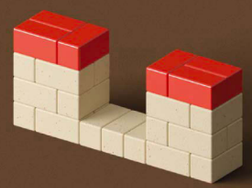
3

6X



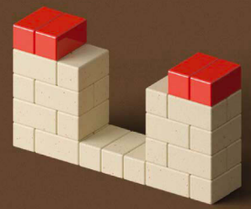
4

6X



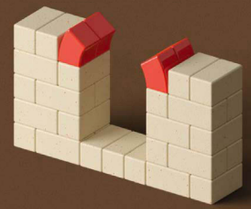
5

4X



6

4X



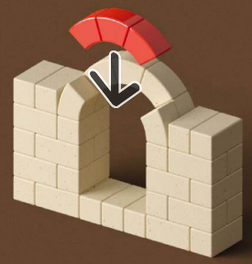
7

3X



8

3X



9

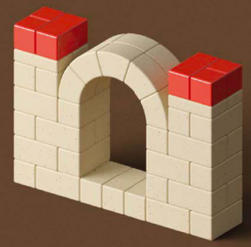
4X



10

2X

4X



11

4X



12



Remove

13

8X



14

9X



