

Mastering Magnificent Structures with Max the Monkey

Think like an engineer, build for the future, and always check your stability!

- How does triangulation increase the structural integrity of a frame?
- Why do engineers use wide, deep foundations to support tall buildings?
- In what ways do struts and ties act differently to resist forces like compression and tension?
- What is the importance of choosing materials based on their strength-to-weight ratio?
- How can a structure be reinforced to prevent it from collapsing under heavy loads or high winds?

Did you know? Did you know? The triangle is the strongest shape in engineering! Because its angles are fixed, a triangle cannot be squashed or stretched without changing the length of its sides. That is why you see triangles everywhere, from giant bridges to the roof of your own home!

Key vocabulary: Compression · Tension · Reinforcement · Strut · Triangulation · Stability · Rigidity · Foundation