GRIFFITHS
civil engineering and construction

TALL TOWER CHALLENGE

CHALLENGE DESCRIPTION:	To build the tallest Tower out of the materials listed below to support the weight of a golf ball for 30 seconds.
MATERIALS:	• 30 drinking straws • Adhesive tape • Scissors • Measuring tape • Golf ball • Planning paper • Pencils
CHALLENGE SYNOPSIS	The Tall Tower Challenge explores the design of tall structures. Teams must work together to engineer the tallest Tower they can build using just straws and adhesive tape. The Tower must be strong enough to support the weight of a golf ball for 30 seconds.
CHALLENGE PARAMETERS	• Teams can develop a plan on paper prior to building • The Tower must be constructed using only the materials provided. You do not need to use all the materials • The straws can be interconnected directly by sliding one end into another straw. Straws may be bent, cut or slit • Teams may **not** completely cover their structure with adhesive tape as reinforcement. Tape is used at joints only. **Tape may not be used to secure the Tower to a table, base, ceiling or surface.** Teams may not make a leg, brace, cone or column out of tape. • The Tower must accommodate a standard golf ball. The teams must be able to balance the ball on the Tower at the loading point for the Tower to qualify • The golf ball must be supported near the top of the Tower, with the bottom of the ball no more than 20% below the upper height of the Tower
MEASURING ACHIEVEMENTS	• Remember to measure the Tower before loading • The height of the Tower and the position of the golf ball will be measured again once the golf ball is placed on the structure • If two Towers of the same height can both hold the weight for 30 seconds, the winner will be the Tower which supports the load at the highest point