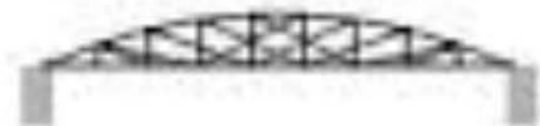
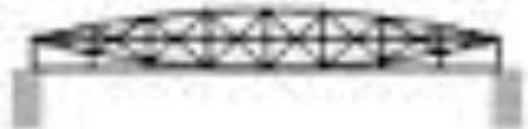
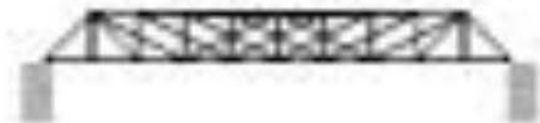
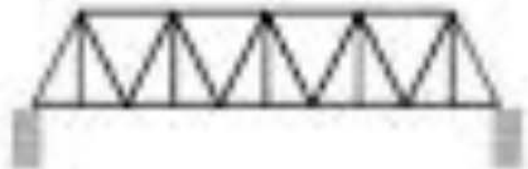
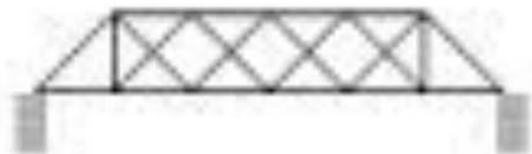
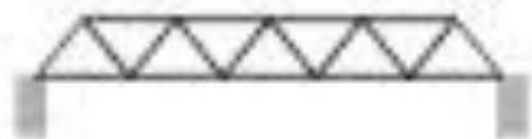
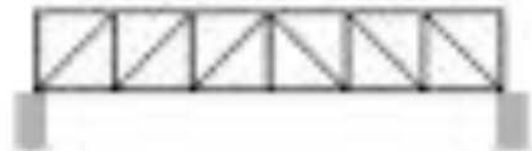
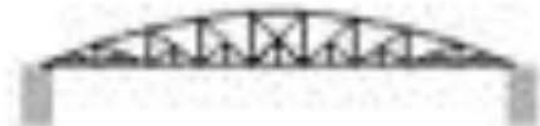
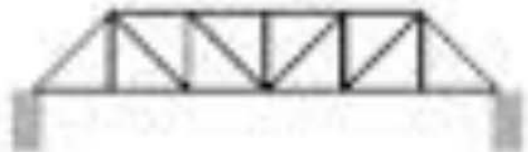
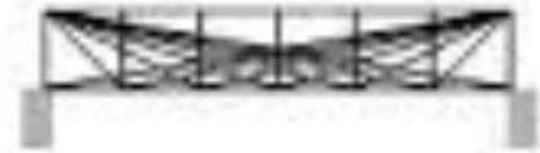
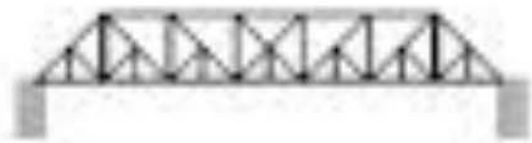


Bridges

2

Shapes in Bridges



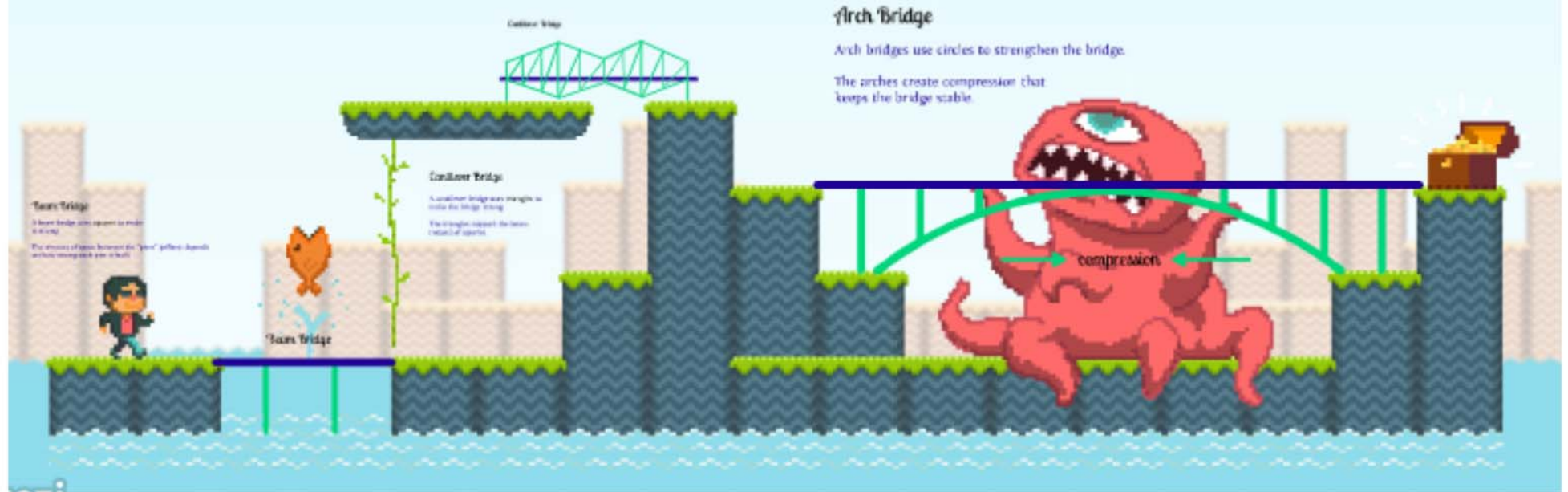








Strong Shapes and bridges



Click on the pic!

PILLARS



ARCHES



GUSSET



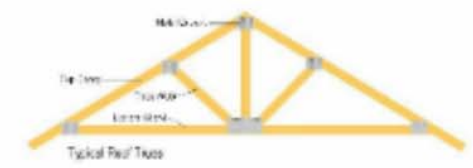
STRUTS



TIES



TRUSS



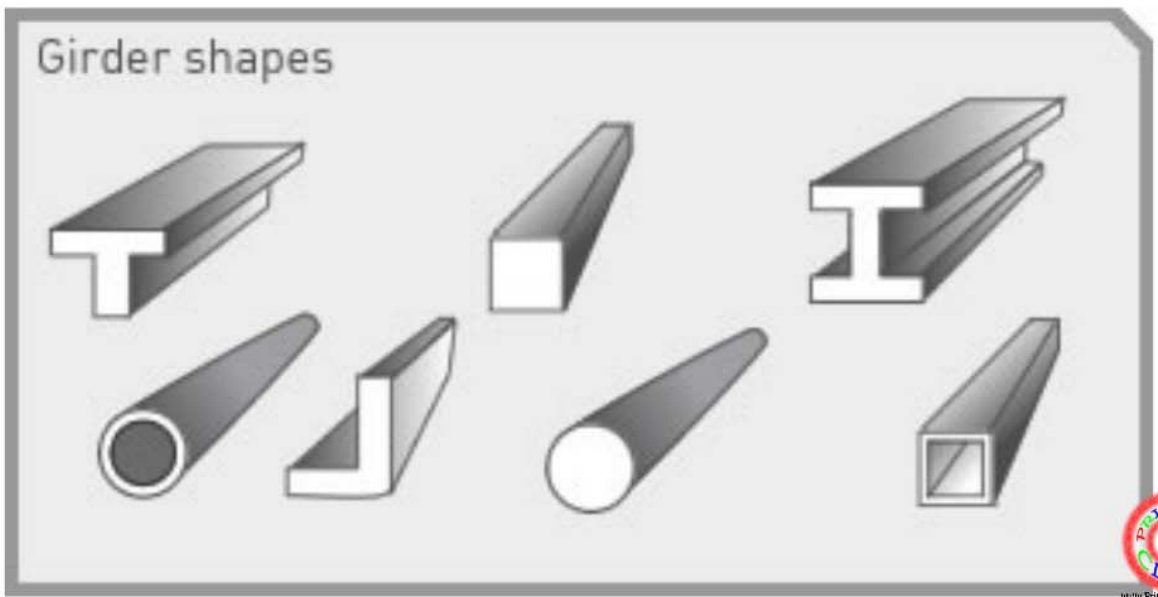
TRIANGLES



SQUARES



CIRCLES



Girder shapes



Spaghetti Challenge



Build a bridge using the triangular shape made from spaghetti joined with mini marshmallows.

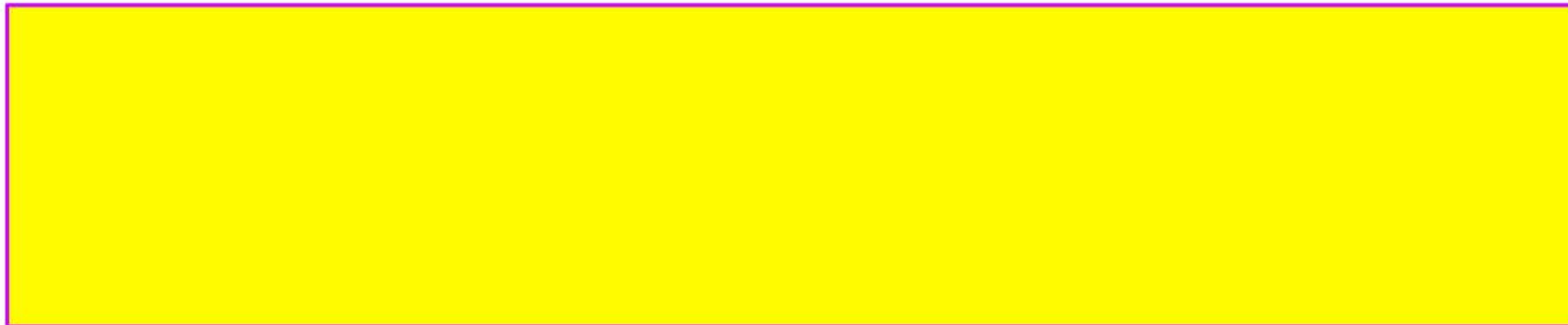
Rules:

- 1) The bridge must cover a gap of 50cm (between chairs or tables).
- 2) You have a budget of £150. You can buy spaghetti and marshmallows from the teacher. You can also sell them back, but at 50% of the rate: (so it is a good idea to plan well before you buy)

	Buy	Sell
Spaghetti	£10	£5
Marshmallow	£4	£2

- 3) However, broken spaghetti or mushy mallows cannot be sold back.
- 4) Don't eat the marshmallows
- 5) You have a time limit of 40 minutes
- 6) If more than one succesful bridge, the longest bridge wins.

Tips:



Build a bridge using the triangular shape made from spaghetti joined with mini marshmallows.

Rules:

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- 5) You have a time limit of 40 minutes
- 6) If more than one succesful bridge, the longest bridge wins.

Tips: 2 spaghetti together are stronger than 1
 Shorter (broken) spaghetti may also be stronger
 Team work and continually evaluating/improving your ideas
 Some pics on the next page...



