

DRAWING A PARABOLA

The SKA will have thousands of radio telescopes all working together. All radio telescopes have the same shape dish. This shape is called a *paraboloid*. You can make a *paraboloid* by getting a *parabola* and rotating it around its centre.

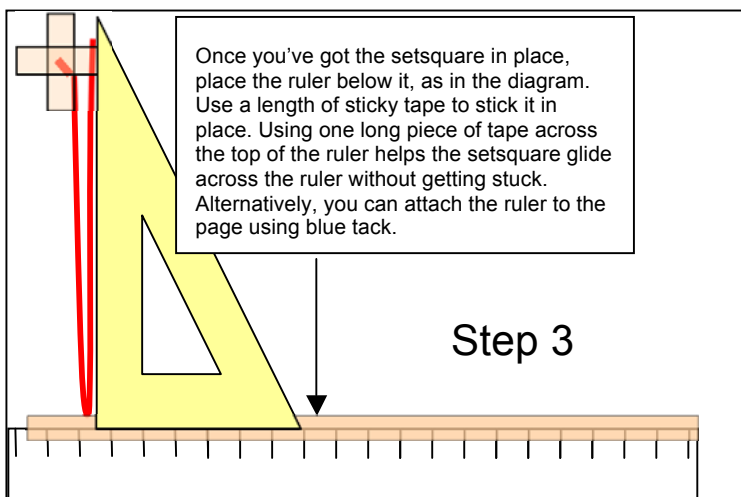
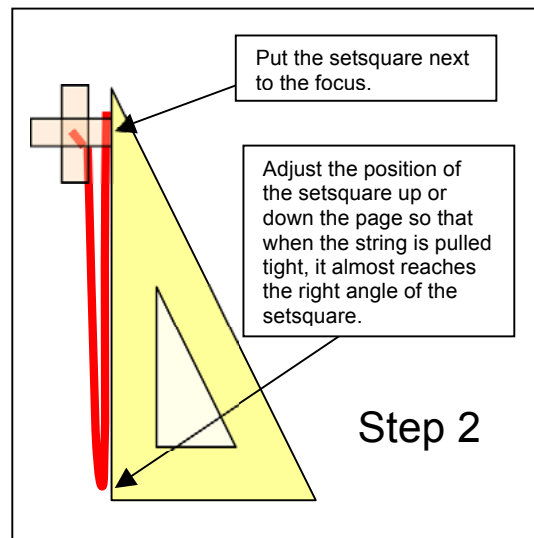
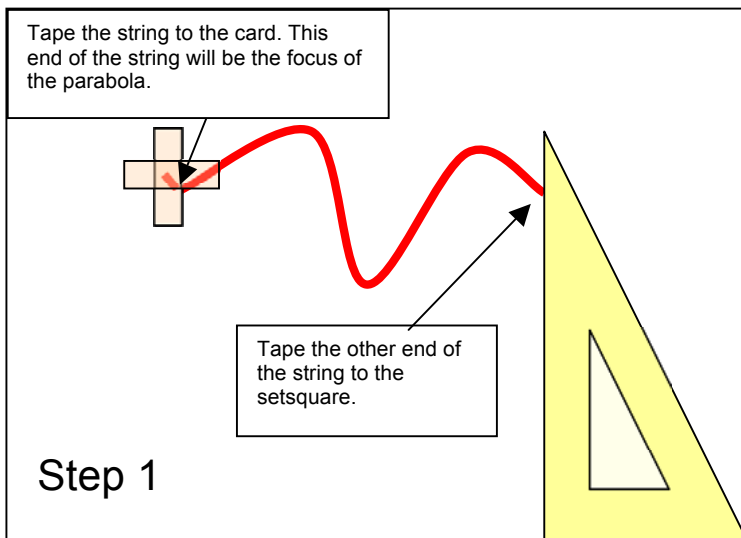
Whilst it is fairly easy to plot and draw a parabola on graph paper, there are other ways to do it. You can draw perfect parabolas using a bit of string, a ruler and a set square. It's a little fiddly, which is why there is so much sticky tape being used.

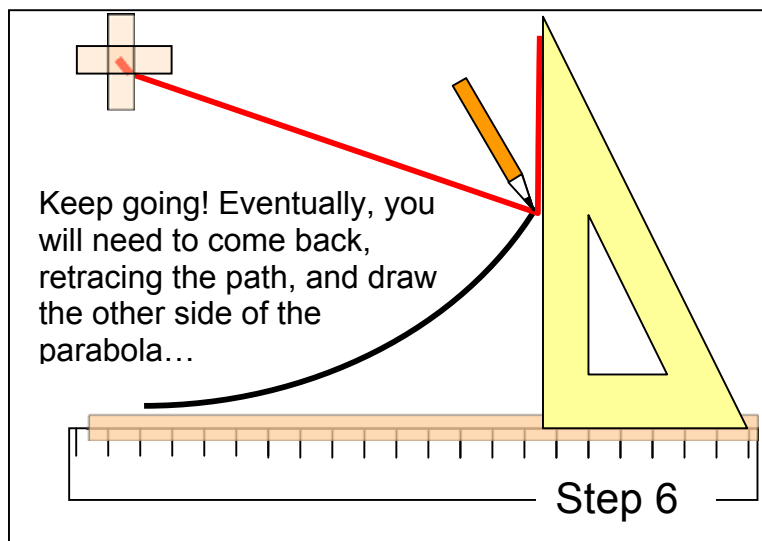
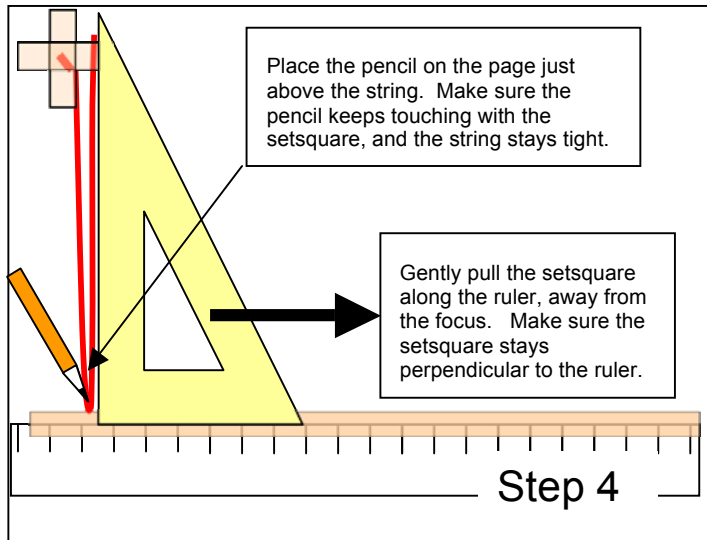
You will need:

- A piece of card (paper is too flimsy)
- A pencil
- A piece of string approximately 10-15 cm long
- Blu tack
- Sticky tape
- A ruler
- A set-square

What you do:

- Use some of the blu tack to attach the ruler to the base of the card.
- Use a small piece of sticky tape to attach one end of the string to the smallest angle (most acute) in the set square.





There are on-line versions of this to that demonstrate what's happening. Whilst they're undoubtedly easier to use, they lack the personal touch of doing it yourself.

http://www.sciences.univ-nantes.fr/physique/perso/qtulloue/conics/drawing/para_string.html

Or http://www.ies.co.jp/math/java/conics/draw_parabola/draw_parabola.html