

# Tape Charge

## Apparatus

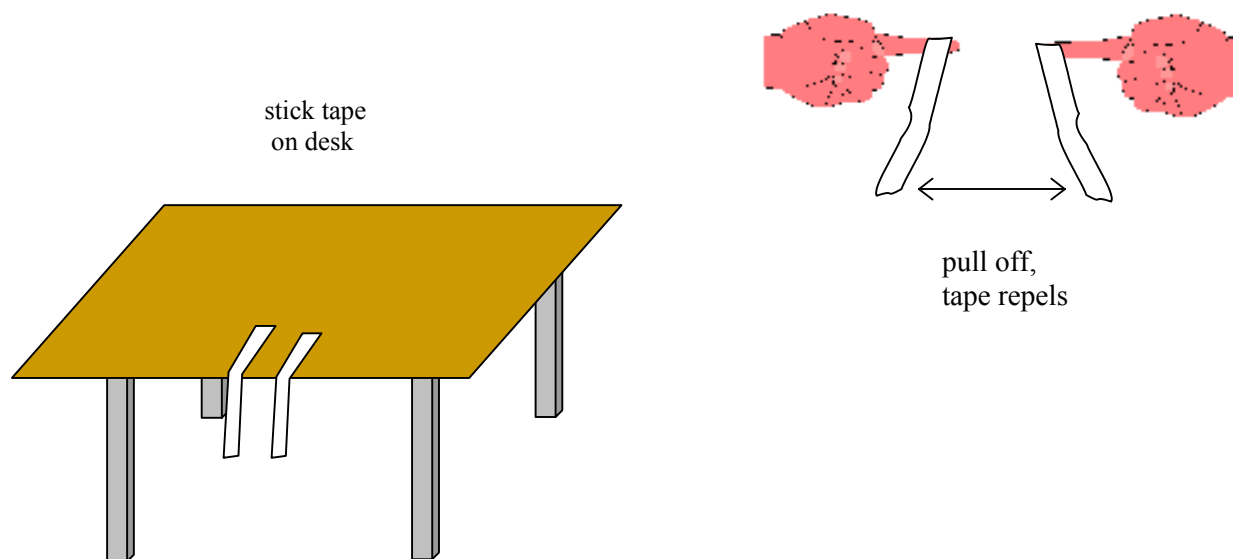
roll of sticky tape, the slightly opaque tape works best  
It is worth experimenting with a few different types to find one that works well.

## Action

The students stick two lengths of sticky tape, approximately 10 cm long, onto a desk *with the ends hanging off* (this is important for easy removal). They then peel the tape strips off, and hang them near each other. They can also stick two strips of tape together and then pull them apart and hang them close together.

## The Physics

The sticky tape becomes charged when it is pulled off the desk. Large organic molecules, such as are involved in sticky tape or combs and hair or glass/plastic and cloth/fur, break easily and leave these items charged. The pieces have like charge and repel each other. This also explains why sometimes sticky tape curls up and sticks to your hand when you pull a long strip from a roll. Pieces which have been stuck to each other and pulled apart may have opposite charge, and hence attract rather than repel.



## Accompanying sheet

### Tape Charge

Stick two strips of tape on the desk,  
with one end of the tape hanging over the edge.

Now peel them off.

Hang them close to each other and see what happens.  
Explain your observations