

# Fault models using foam blocks

Boundaries between plates are made up from a system of faults. Each type of boundary is associated with one of three basic types of fault, called normal, reverse and strike-slip faults.

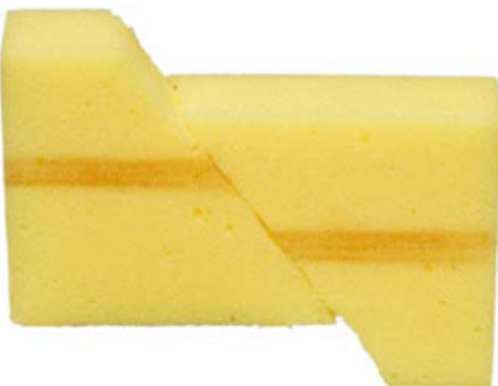
You can use pieces of foam to model the movement of tectonic plates in different kinds of faults and boundaries. The images below show simple foam models of faults: those on the left show 'before slippage' and those on the right 'after slippage'.

### Normal faults

Normal faults are associated with divergent plate boundaries: for example, the Mid-Atlantic Ridge that is exposed above sea level through Iceland.



**Figure 1** Normal fault, before slip. BGS ©UKRI



**Figure 2** Normal fault, after slip. BGS ©UKRI

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### Reverse faults

Reverse faults (or 'thrust' faults) are found at convergent boundaries. They are associated with mountain ranges, such as the Himalayas or the Andes.



**Figure 3** Reverse fault, before slip. BGS ©UKRI

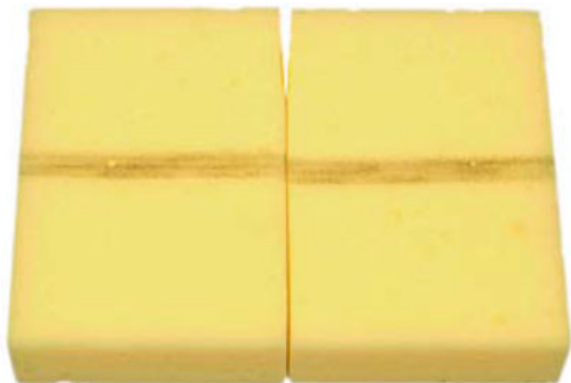


**Figure 4** Reverse fault, after slip.. BGS ©UKRI

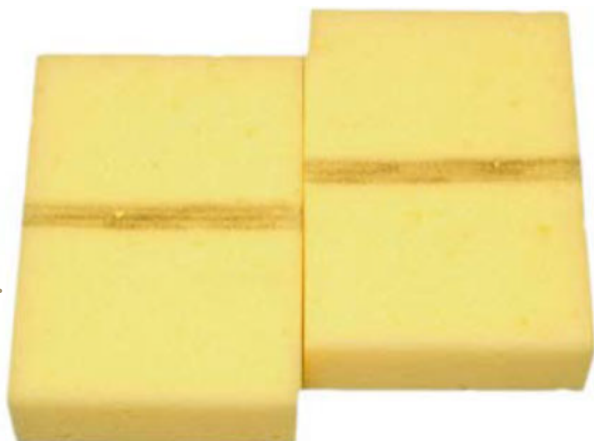
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### Strike-slip faults

Strike-slip faults occur at transform boundaries: for example, a system of strike-slip faults makes up the transform boundary of the San Andreas fault.



**Figure 5** Strike-slip fault, before slip. BGS ©UKRI



**Figure 6** Strike-slip fault, after slip.. BGS ©UKRI

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### Examples of strike-slip faults



**Figure 7** Small offset from a single earthquake in California (M 6.9 strike-slip event in 1979).  
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**Figure 8** Aerial view of streams along the San Andreas fault. The offsets are caused by many earthquakes over time (the average plate movement along this boundary is ~3 cm per year). The red arrows show the relative direction of ground movement on either side of the fault.  
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