



strap  
chin strap



straw



string



streak



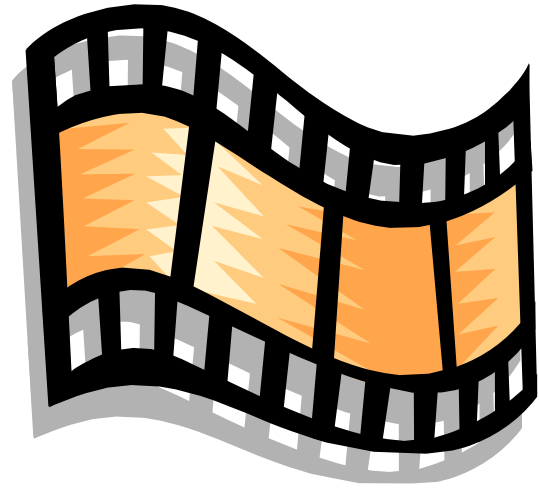
street



stripes



stream



strip

*film strip*

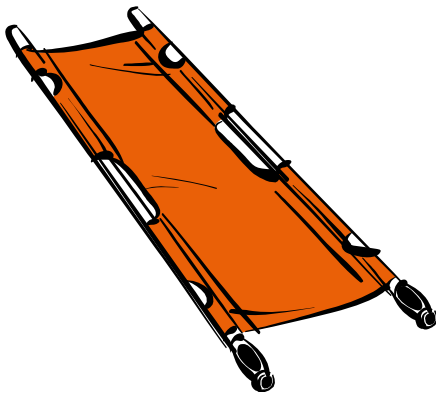


strange



strobes

*strobe lights*



stretcher



strainer



*sprout*

*Brussels sprout*



*Sprat*

*Jack Sprat*



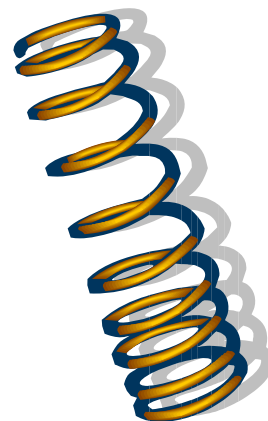
*sprig*



*spray*



*sprain*



*spring*



screw



scrum

football scrum



scrap

scrap metal



scrub

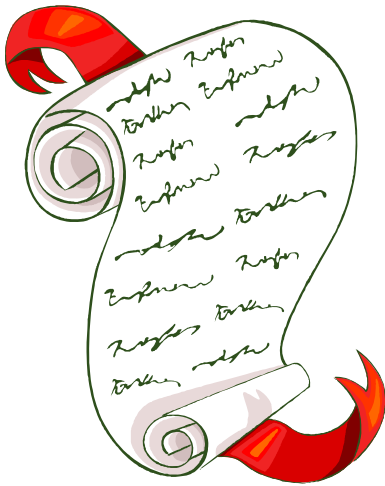


screen



script





scroll



scratch

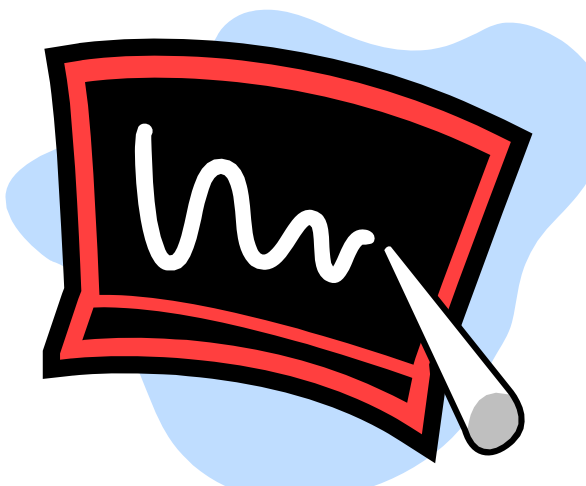


scrub

Australian scrubby bush



Scrabble



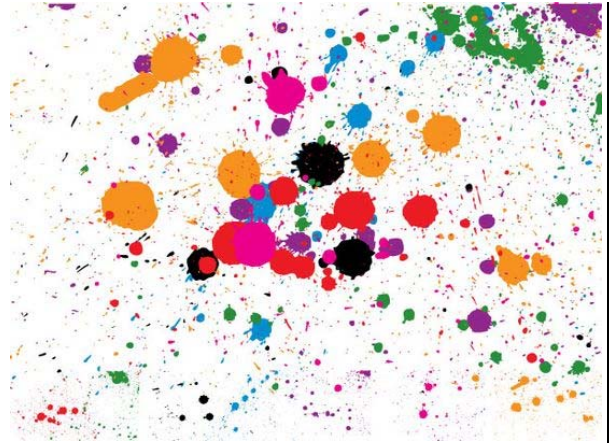
scribble



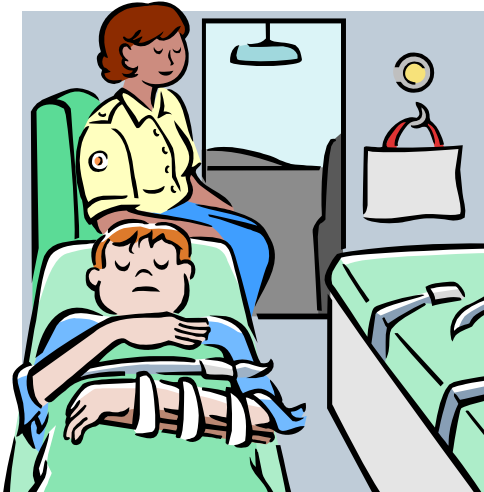
scrunchie



splash



splatter



splint

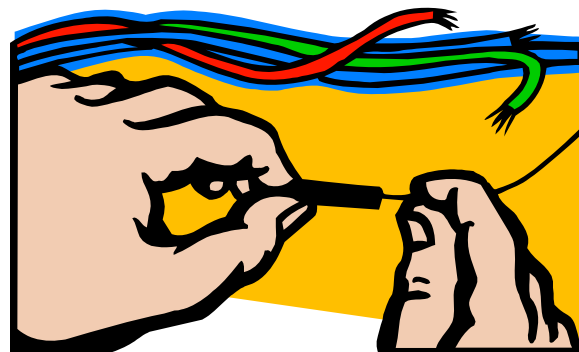


Splayd



split

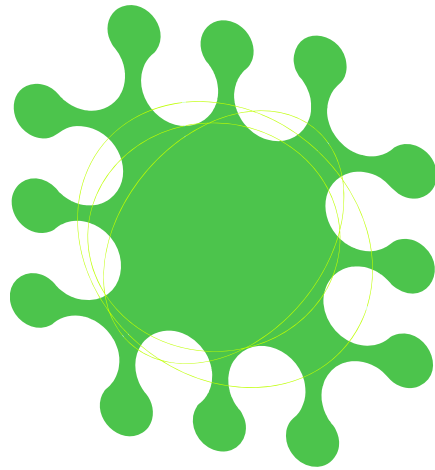
banana split



splice



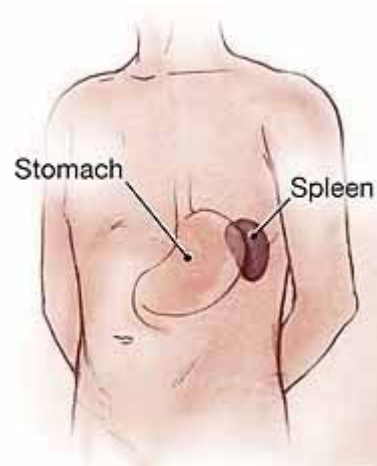
splinter



splat



splits



spleen



splendid  
splendid parakeet



splurge

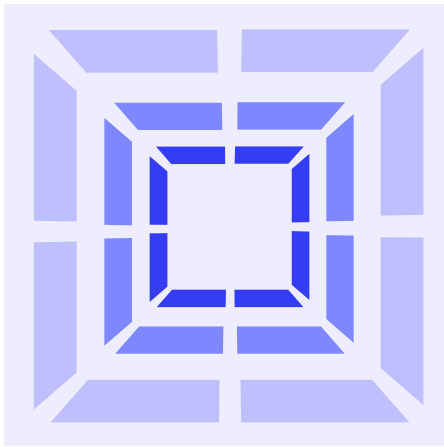




*squad*



*squat*



*square*



*squash*



*squidgy*



*squeegee*

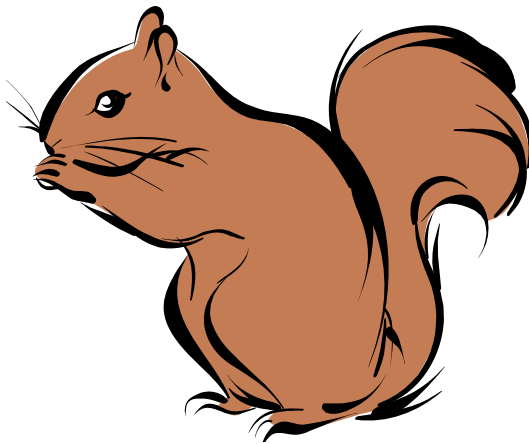




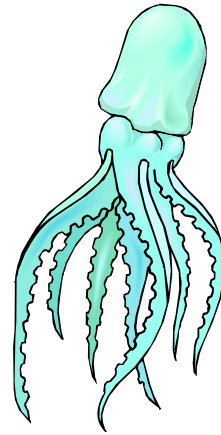
squire  
*medieval squire*



squiggle



squirrel



squid





squabble



squatter  
*Australian squatter*

## SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/

Most Complex		Sonority Difference	
     	Voiceless fricative + nasal	sm sn	2
	Voiceless fricative + liquid	fl fr θr sl	3
	Voiced stop + liquid or voiceless fricative + glide	bl br dr gl gr sw	4
	Voiceless stop + liquid	pl pr tr kl kr	5
	Voiceless stop + glide	tw kw	6
Least Complex			

Consider targeting 3-element clusters, and 2-element clusters with smaller sonority differences (2 or 3 or 4).

vowels	0	voiced fricatives	4
glides	1	voiceless fricatives	5
liquids	2	voiced stops	6
nasals	3	voiceless stops	7

### Clusters

Consonant clusters are more marked than singletons, but are some clusters *more* marked than others? One approach to classifying two-element consonant clusters according to markedness is to rank them according to their sonority difference score, using their numerical values from a sonority hierarchy (Ohala, 1999). This approach is called the Sonority Sequencing Principle or SSP. For example, /kw/ (7 minus 1) has a sonority difference score of 6, whereas /fl/ (5 minus 2) scores 3. Clusters with SMALL sonority differences of 2, 3 or 4 may better promote generalised change to singletons *and* clusters. Gierut (1999), Gierut & Champion (2001), and Morrisette, Farris & Gierut (2006) provide evidence and target selection guidelines.

### Targeting Adjuncts

Note that the adjuncts /sp/, /st/ and /sk/ do not conform to the sonority sequencing principle with respect to generalisation.

### Targeting the 3-element Clusters

**Prior knowledge of the second element and the third element is required.**

The 3-element consonant clusters, /spr/ /str/ /skr/ /spl/ and /skw/ should only be targeted if the child already has the relevant stop (/p/, /t/ or /k/) *and* the relevant liquid (/l/) or glide (w) present in his or her phonemic inventory. For example, if targeting /skw/ the child should have productive knowledge of /k/ and /w/, but does not need to have productive knowledge of /s/.

### Targeting the 2-element Clusters

**Prior knowledge of the first element and/or the second element is not required.**

The 2-element clusters, /sm/, /sn/, /fl/ etc. displayed on the chart above, can be targeted irrespective of whether the child has previous knowledge of either or both of the two elements. For example, in targeting /sl/ the child may or may not have previous knowledge of /s/ and/or /l/.

strap straw chin strap string streak street stripes stream strip strange strobes  
 stretcher strainer sprout Sprat sprig spray sprain spring screw scrum scrap scrub  
 screen script scroll scratch scrub Scrabble scribble scrunchie splash splatter splint  
 Splayd split splice splinter splat splits spleen splendid splurge squad squat square  
 squash squidgy squeegee squire squiggle squirrel squid squabble squatter