INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

PRACOVNÍ LIST	
Výukový materiál GE 02 - 51	**Název:** AUTOSOMAL INHERITANCE
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Projekt: S anglickým jazykem do dalších předmětů	Registrační číslo: CZ.1.07/1.1.36/03.0005
Tento projekt je spolufinancován ESF a SR ČR	

Example 1.

The gene for the formation of black colour in cattle is dominant over the gene for red color (they are two different alleles of the same gene).

What posterity (F 1) will be obtained after crossing purebred, i.e. homozygous black bull with red cow?

- What will be the composition of the posterity of hybrids obtained by crossing each other (in F 2)?
- And what calves will be obtained by crossing with red bull F1 hybrid cows from?

Example 2:

- For tomatoes, the gene responsible for the red colour of the fruit is dominant over the gene for yellow colour (they are two different alleles of the same gene).
- What colour will the fruits of plants obtain by crossing homozygous red-fruit with homozygous yellow-fruit plants?
- What plants will bear fruit in the F 2?
- Specify the posterity obtained by crossing plants of red-fruit plants of F 2 with a hybrid plant of F1? Will be composition of posterity of such crosses always equal, or will it be different by some red-fruit plants of F2?
- What colour will have plants in the posterity of the reciprocal crossing of yellow-fruit plants between each other?

Example 3:

- A blue-eyed man, whose parents both have brown eyes, married a girl who has brown eyes and whose father was blue-eyed, while his mother was brown-eyed.
- Their only child so far has brown eyes.
- What are the genotypes of the child, the parents and all the grandparents, if you know that brown eye colour is dominant over blue?