
1	2
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Many different types of animals are produced using selective breeding.
Some cats are selectively bred so that they do not cause allergies in people.

1	2
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1

Suggest **two other** reasons why people might selectively breed cats.

[2 marks]

1 _____

2 _____

1	2
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2

Selective breeding could cause problems of inbreeding in cats.

Describe **one** problem inbreeding causes.

[1 mark]

1 2 . **3** Many people have breathing problems because they are allergic to cats.

The allergy is caused by a chemical called Fel D1.

Different cats produce different amounts of Fel D1.

A cat has been bred so that it does not produce Fel D1.

The cat does **not** cause an allergic reaction.

Explain how the cat has been produced using selective breeding.

[4 marks]

END OF QUESTIONS

Question 12

Question	Answers	Extra information	Mark	AO / Spec. Ref.
12.1	any two from: <ul style="list-style-type: none"> so that they do not have specific genetic defects to produce docile cats or so they are not aggressive for aesthetic reasons 	allow descriptions of aggression such as biting and scratching allow descriptions of suitable aesthetic reasons	2	AO1/1 4.6.2.3
12.2	(cats) are more likely to pass on (recessive) disorders or more likely to be susceptible to diseases		1	AO1/1 4.6.2.3
12.3	Level 2: A detailed and coherent explanation is given, which logically links the process of selective breeding with explanations of how this produces cats that do not cause allergic reactions.		3–4	AO2/1 4.6.2.3
	Level 1: Simple statements are made relating to process of selective breeding, but no attempt to link to explanations.		1–2	
	No relevant content		0	
	Indicative content process: <ul style="list-style-type: none"> parents with the desired characteristic are selected the parents are bred together to produce offspring offspring with the desired characteristics are selected and bred this is repeated over many generations. explanations: <ul style="list-style-type: none"> parents who produce the least Fel D1 are initially selected in their offspring there will be individuals with differing amounts of Fel D1 produced of these, in each generation, the lowest Fel D1 producing individuals are chosen care is taken to ensure cats are healthy and avoid possible problems associated with selective breeding over time the population of (selectively bred) cats will produce less Fel D1 			
Total			7	