

Genes R Us Practice



This Practice Test will help you prepare for the Genes R Us event - Good luck!

Quiz

Section 1



Black and brown labradors get their coat color from 1 pair of genes. (Yes, we know there are yellow labs too, but we won't study how they get their color until you are in high school!). What is the coat color called in genetic terms?

- Genotype
- Phenotype
- Allele
- DNA



Black and brown labradors get their coat color from 1 pair of genes. Black labs have a BB pair of genes. What do we call "BB"?

- Genotype
- Phenotype
- Allele
- DNA



Black and brown labradors get their coat color from 1 pair of genes. Black labs have a BB pair of genes. What do we call each letter in the pair?

- Genotype
- Phenotype
- Allele
- DNA



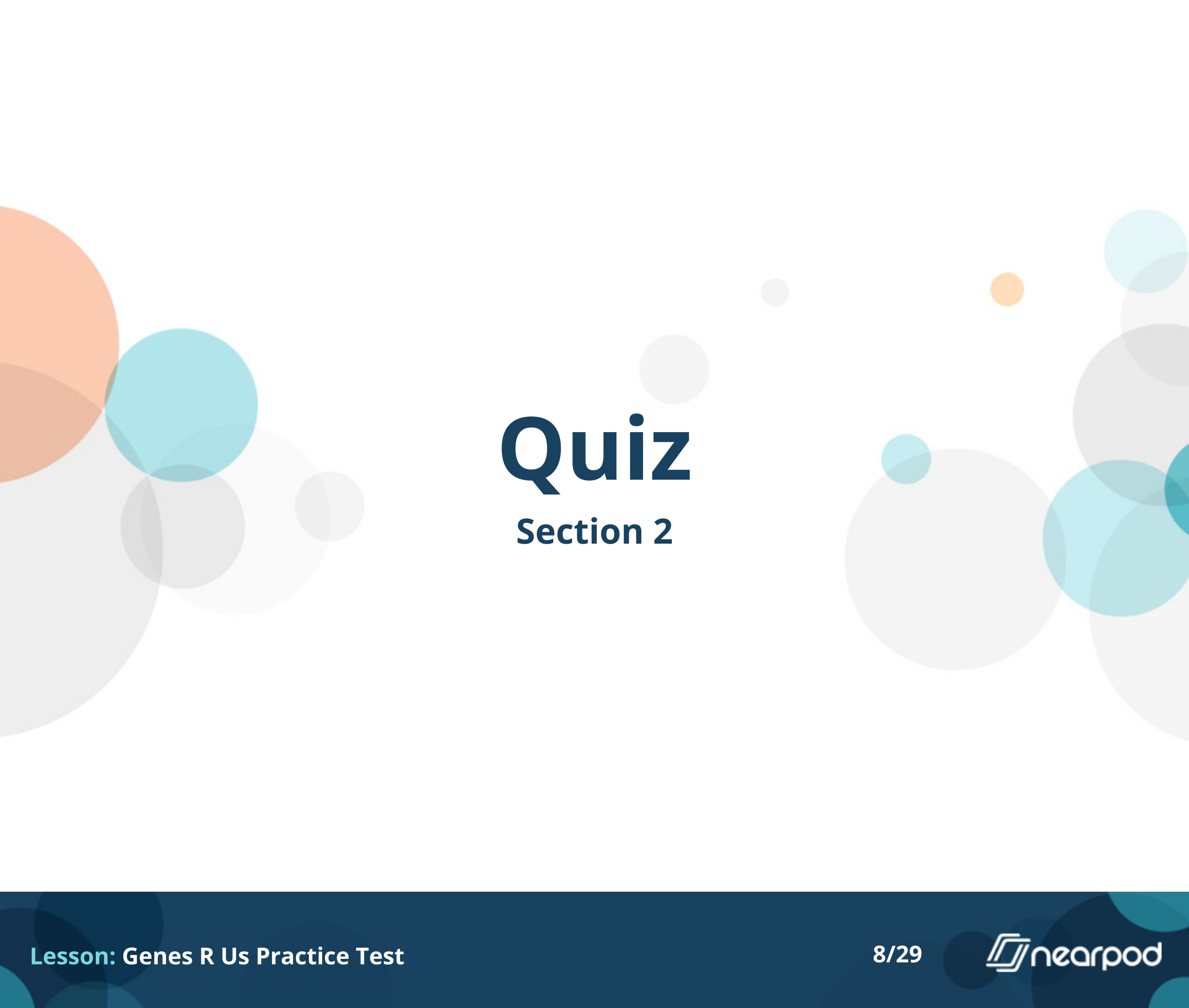
Black and brown labradors get their coat color from 1 pair of genes. Brown labs have a bb pair of genes. What do we call it when something has 2 of the same copies of an allele?

- Heterozygous
- Homozygous



Black and brown labradors get their coat color from 1 pair of genes. Black labs can have BB or Bb genes. What do we call the "B" gene?

- Dominant
- Recessive



Quiz

Section 2



Lions must hunt for their food and so they hide and surprise thier prey. Is this a learned or inherited trait?

- Learned
- Inherited



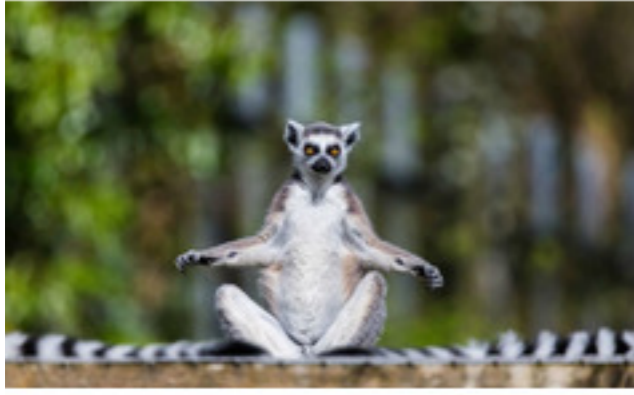
Chimpazees will stick a piece of grass into an any hill and then eat the ants when they pull it out. Is this an example of a learned or inherited trait?

- Learned
- Inherited



When a baby dolphin is born, it starts to swim immediately. Is this an example of a learned or inherited trait?

- Learned
- Inherited



Ringed-tailed lemurs are the only type of lemur with stripes. Is this a learned or inherited trait?

- Learned
- Inherited

Quiz

Section 3



Otters spend much of their time in the water. They have webbed feet. This is an example of:

- Adaptation
- Camouflage
- Instinct
- Learned behavior



Blue Morpho butterflies are a beautiful iridescent blue on the top of their body, but when they close their wings, they are brown with a big spot that looks like an eye. This is an example of:

- Adaptation
- Camouflage
- Instinct
- Learned behavior



Male peacocks have huge, showy plumes of feathers that sometimes get so big that they have trouble walking. What is the main purpose of this trait?

- To help them catch food
- To help fan themselves to stay cool
- To help them attract a mate
- To help them scare away predators



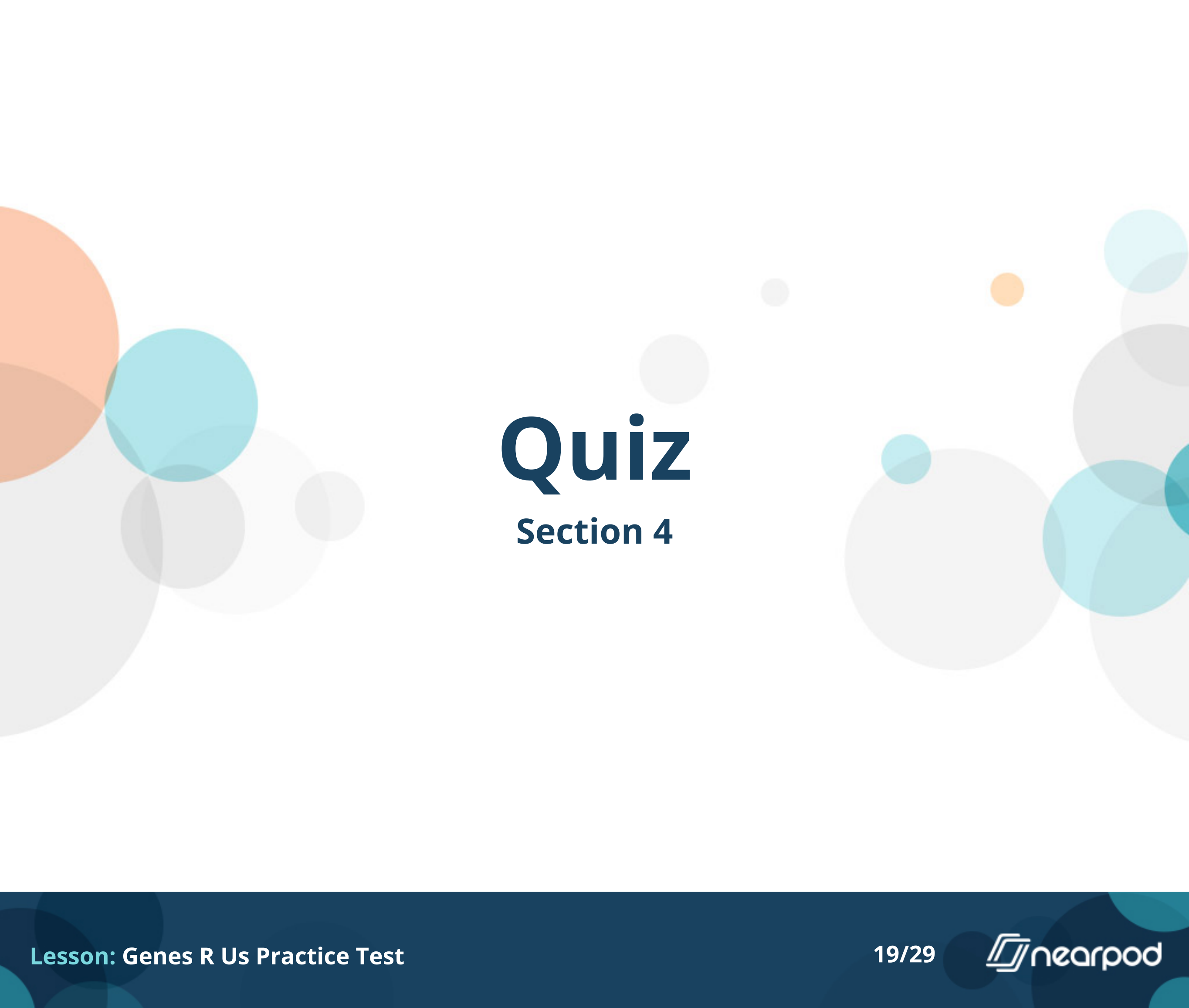
A frilled-neck lizard can expand extra flaps of skin around its neck. Why would it have adapted to do this?

- To help keep it cool in the hot desert
- To help it find food
- To help it communicate with other lizards
- To make itself look bigger to scare away predators



Autosomal Dominant Compelling Helioophthalmic Outburst (ACHOO) Syndrome is characterized by uncontrollable sneezing in response to the sudden exposure to bright light, usually intense sunlight. Is this a dominant or recessive trait?

- Dominant
- Recessive



Quiz

Section 4

	R	r
R		
r		

Two red flowers are crossed with each other. Based on this Punnett square, these flowers are:

- Homozygous Dominant
- Homozygous Recessive
- Heterozygous

	R	r
R		
r		

Two red flowers are crossed with each other. Based on this Punnett square, what percentage of their offspring will be pink (rr)?

- 0%
- 25%
- 50%
- 100%

	R	r
R		
r		

Two red flowers are crossed with each other. Based on this Punnett square, what percentage of their offspring will be Red?

- 25%
- 50%
- 75%
- 100%

	R	r
R		
r		

Two red flowers are crossed with each other. Based on this Punnett square, what percentage of their offspring will be homozygous for a genotype?

- 25%
- 50%
- 75%
- 100%

Quiz

Section 5



A monster has 1 eye if they are homozygous recessive for a trait. 2 one-eyed monsters mate. What is the probability that they will have 2-eyed offspring?

- 0%
- 25%
- 50%
- 100%



A monster has 1 eye if they are homozygous recessive for a trait. A 1-eyed monster and a 2-eyed monster with a genotype of EE mate. What is the probability that they will have 2-eyed offspring?

- 0%
- 25%
- 50%
- 100%



Cookie monster is heterozygous for blue fur color. What is his genotype?

- BB
- Bb
- bb



Cookie monster is heterozygous for blue fur color. Green Cookie monster fur is homozygous recessive. What is the likelihood that a blue cookie monster & a green cookie monster will have green offspring?

- 0%
- 25%
- 50%
- 75%



Cookie monster is heterozygous for blue fur color. Green Cookie monster fur is homozygous recessive. What percent of the offspring will be heterozygous for the fur color trait?

- 0%
- 25%
- 50%
- 75%