Genes R Us

The first slide will ask you for your school, team and team members. 1 person should submit answers for the team. Once the section gets to 0:00, the test moves on but DOES record the answers you have clicked.

Quiz

Section 1

Different versions of a gene are called _____.

- allele(s)
- chromosome(s)
- DNA
- phenotype(s)

The fish has blue scales. This is the fish's_____.

- allele
- DNA
- genotype
- phenotype

If a fish has one “copy” of a blue scale gene and one “copy” of a red scale gene, then the fish is considered ____ for scale color.

- dominant
- heterozygous
- homozygous
- recessive

A geneticist would call the fish ‘Ss’ (big S, little s). This is the fish’s _____.

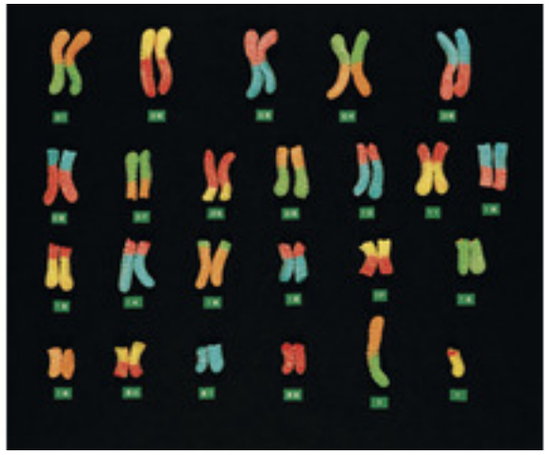
- Allele
- DNA
- genotype
- phenotype

The version of the gene that is called ‘S’ for blue scales is _____ over ‘s’ which is for red scales.

- dominant
- recessive
- heterozygous
- homozygous

Quiz

Section 2



The gummy worms here represent _____, which come in pairs in humans and contain all genetic information.

- cells
- compounds
- chromosomes
- DNA

Every living thing has the same number of these gummy worm structures.

- True
- False

The gummy bear structure shown here (A) is a double helix that contains genes. It represents _____.

- alleles
- DNA
- genes
- phenotypes

DNA stands for deoxyribonucleic acid.

- True
- False

_____ are made up of DNA and are the instructions for life.

- carbohydrates
- cells
- genes
- proteins

Quiz

Section 3

If polar bears and brown bears produced offspring for many generations, what color would they be if they adapted to live in forests like these?

- brown
- green
- white
- yellow

If polar bears and brown bears produced offspring for many generations, what color would they be if they adapted to live in an area like this?

- brown
- green
- white
- yellow

This picture shows the male and female woolybooger, a spoon-billed bird. In order to survive, the woolybooger needs food from its habitat. It can either live on spaghetti island or cereal island. Which island would it best survive on?

- Spaghetti Island
- Cereal Island

If the food source changed on the island, the population would have to do what over time in order to survive?

- Adapt
- Cry
- Die
- Morph

Quiz

Section 4

Here are a male (green) & female (orange) goldfish. Given that green is dominant and orange is recessive, what could the possible genotype(s) of the MALE be? Click all possible answers.

- GG
- gg
- Gg

Here are a male (green) & female (orange) goldfish. Given that green is dominant and orange is recessive, what could the possible genotype(s) of the FEMALE be? Click all possible answers.

- GG
- gg
- Gg

Here are the offspring from a single mating between those two goldfish. Given that green is dominant and orange is recessive, what could the possible genotype(s) of the FATHER be? Click all possible answers.

- GG
- Gg
- gg

Open Ended Question

(2pts) A pink peep that is heterozygous has offspring with a yellow peep that is homozygous recessive. Complete the Punnett Square using P and p for your alleles. What percentage of the offspring will be pink? Don't forget to hit submit to record your answers before the timer gets to 0:00.

Quiz

Section 5

A mother rabbit has a litter. One of the babies is born with one long ear and one short ear. What most likely caused this one rabbit to be born with one short ear?

- The mother rabbit had previously lost an ear in an accident.
- The mother rabbit became sick before she gave birth.
- A mutation occurred during the development of this one rabbit
- This one rabbit received less nutrition than the other rabbits before it was born.

Which is an example of a trait that is inherited?

- dimples
- intelligence
- weight
- favorite food

Which of these traits is most influenced by a person's environment?

- ability to roll the tongue
- weight
- eye color
- blood type

Which is most likely the reason parents and their children have similar physical traits?

- They live in the same home.
- They have similar genetic structures.
- They are born in similar environments.
- They have similar blood types.

Quiz

Section 6

A heterozygous pink flower is pollinated by another heterozygous pink flower. What is the genotype for these flowers?

- PP
- Pp
- pp

One pink flower is pollinated by another pink flower, which produce offspring of the colors seen in the picture. What is the recessive phenotype?

- pink
- red

Complete a Punnett square using P and p for your alleles. What percentage do you expect to be Pink in a cross between these 2 pink flowers?

- 0%
- 25%
- 50%
- 75%
- 100%

Quiz

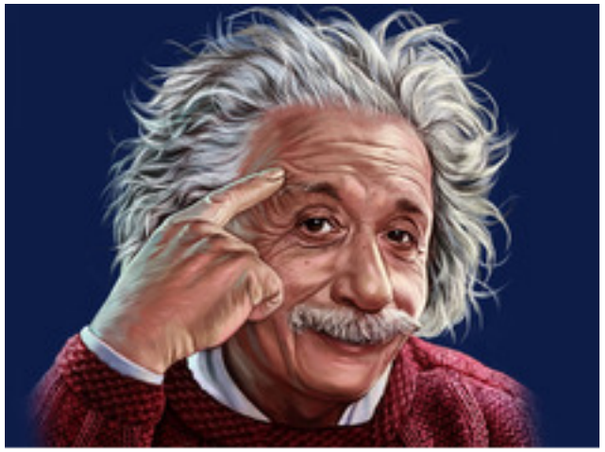
Section 7

Which is a trait children most likely LEARN from their parents?

- favorite color
- food preference
- tongue rolling
- growing freckles

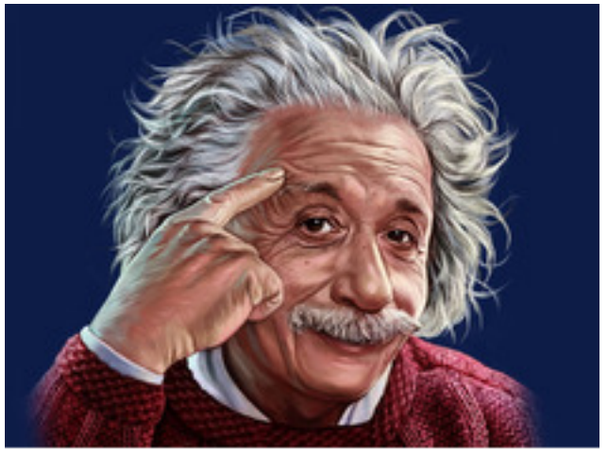
Some people have ACHOO syndrome, whcih means they sneeze when they see sunlight or a bright light. How do these people most likely get this trait?

- They learn it from friends.
- They inherit it from their parents.
- They get it as a result of an illness
- They get it as a result of their jobs.



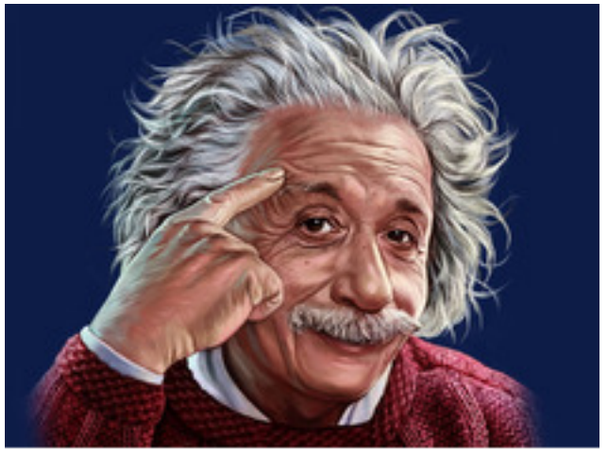
Here is Albert Einstein, father of the Theory of Relativity. He had a lot of interesting traits. Say whether each trait described here is learned behavior or inherited He loved red sweaters.

- Learned behavior
- Inherited



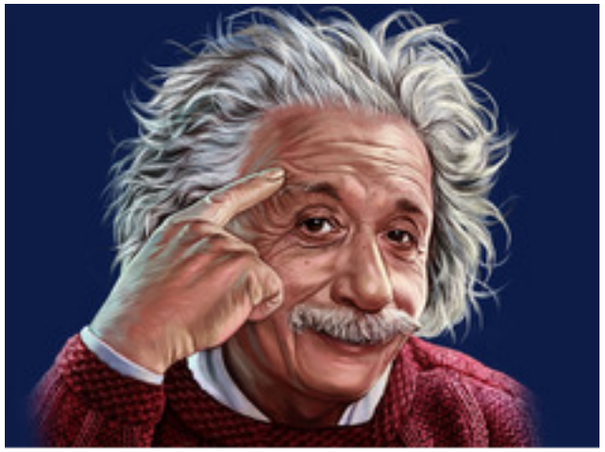
Here is Albert Einstein, father of the Theory of Relativity. He had a lot of interesting traits. Say whether each trait described here is learned behavior or inherited. He was colorblind.

- Learned behavior
- Inherited



Here is Albert Einstein, father of the Theory of Relativity. He had a lot of interesting traits. Say whether each trait described here is learned behavior or inherited. He liked physics.

- Learned behavior
- Inherited



Here is Albert Einstein, father of the Theory of Relativity. He had a lot of interesting traits. Say whether each trait described here is learned behavior or inherited. He had attached earlobes.

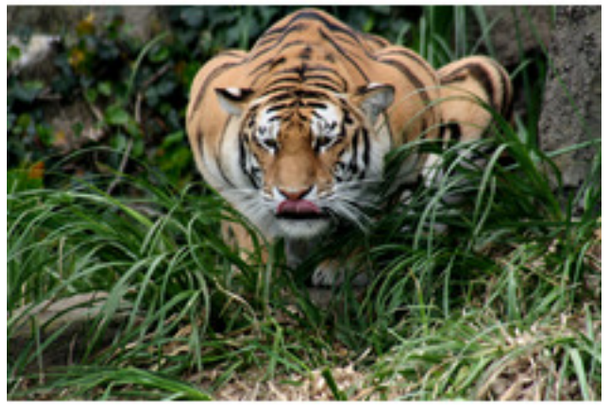
- Learned behavior
- Inherited

Quiz

Section 8

Read the following statement and determine whether the described traits of Tina the Tiger are Learned or Inherited.
The number of stripes she has.

- Learned
- Inherited



Read the following statement and determine whether the described traits of Tina the Tiger are Learned or Inherited.
Her ability to hunt.

- Learned
- Inherited

Read the following statement and determine whether the described traits of Tina the Tiger are Learned or Inherited. Taking paths that are far away from dirt roads with lots of people when walking around her habitat.

- Learned
- Inherited

Read the following statement and determine whether the described traits of Tina the Tiger are Learned or Inherited.
Her caring mother skills.

- Learned
- Inherited

Quiz

Section 9

A green frog lives in a rainforest and needs to camouflage himself in order to survive. Where should he live to not be attacked by predatory birds?

- A
- B
- C
- D
- E

A bird is hunted by keen-eyed jungle cats. In order to hide in flowers in the region marked (E), what color should the bird adapt to be?

- Black
- Blue
- Green
- Pink

A bug is a parasite of jungle cats. It lives on the fur of the animal marked in D. In order to hide in the fur, what color should the bug be?

- Greenish
- Blueish
- Brownish
- Pinkish

Here is a litter of Pug puppies. If the brown pug is (Bb), the b (black) allele is:

- Dominant
- Recessive

Here is a litter of Pug puppies. What is the genotype of the pugs that have a black coat color?

- BB
- Bb
- bb

Quiz

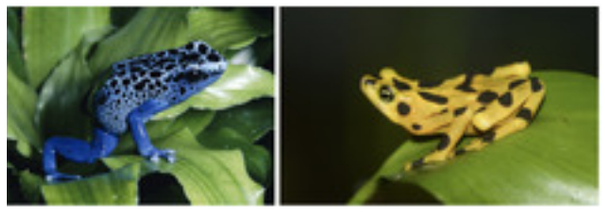
Section 10

The two frogs seen here mate and produce offspring. The father is heterozygous and the mother is homozygous recessive. Use B and b for your alleles. What is the phenotype of the dominant trait?

- Blue
- Yellow

The two frogs seen here mate and produce offspring. The father is heterozygous and the mother is homozygous recessive. Use B and b for your alleles. What are the genotypes of the offspring? Click all that apply.

- BB
- Bb
- bb



The two frogs seen here mate and produce offspring. The father is heterozygous and the mother is homozygous recessive. Use B and b for your alleles. What percentage will be yellow?

- 0%
- 25%
- 50%
- 75%
- 100%