

GALE IN CONTEXT: SCIENCE

THE LAB ON YOUR LAPTOP

Discover interactive **Simulations** to explore concepts, compare variables and their effects, or reinforce learning and test knowledge.

Q: 1/5 Male Female

A **Punnett Square** is a visual representation of Mendelian inheritance. It is a table consisting of possible combinations of the parent alleles, which can be used to determine the probability of an offspring having a particular genotype for a given trait.

A **monohybrid cross** involves crossing of the parent alleles for a single trait and the resulting Punnett square lists the possible genotypes of the offspring for the given single trait.

This interactive lets you practice completing the Punnett square for a monohybrid cross between two parents.

In this case, the single trait involved is the color of the flower, where the purple color (phenotype) is the dominant trait and is represented by capital **B**. The recessive trait is white color and is represented by small-case **b**. Hence, homozygous dominant is represented by **RR**, heterozygous by **Rr** (or **rR**) and homozygous recessive represented by **rr**.

Instructions: Based on the parent alleles, which randomly change for each question, determine the possible allele combinations of the offspring and complete the Punnett square by dragging and dropping the correct allele combination in each cell of the Punnett square.

For more information:
[Punnett square](#) | [Monohybrid cross](#) (links open into a new browser tab/window)
(Close this information panel after reading)

Score: 0/5

Create a hands-on experience from anywhere. Supplement an existing lesson, introduce a new topic, or expand understanding by assigning **Simulations** found within *Gale In Context: Science*. Find topics like:

- Periodic Table of Elements
- Genetics
- Natural Selection

- Motion
- Mathematics
- Chemical Reaction

- Ecology
- Batteries and Circuits
- Gas Laws

Access *Gale In Context: Science* at [support.gale.com](#) and use the steps below to find and share interactive simulations.

SUPPLEMENT A LESSON

Drill into a specific area of study using topic pages.

1. Select a featured topic on the homepage or use **Browse Topics** to find your subject of interest.
2. Scroll down to the **On This Page** section and click into **Simulations**.
3. Choose an activity from the results list.

GALE IN CONTEXT Science

Search...

Overview: Genetics is the branch of biology concerned with the science of heredity, or the transfer of specific characteristics from one generation to the next. Genetics, from the Greek *genno* (give birth), focuses primarily on genes, coded units found along the DNA (deoxyribonucleic acid) molecules of the chromosomes, housed by the cell nucleus. Together, genes make up the blueprints that determine the entire development of the species of organisms down to specific traits, such as the color of eyes and hair.

DNA is a molecule of nucleic acid that contains the genetic code of a living thing, or the physical characteristics that are passed down to a child from parents. Its shape is similar to a ladder that has been twisted...

ON THIS PAGE

- Featured Content (5)
- Reference (545)
- Biographies (4)
- Experiments (4)
- Simulations (19)
- Statistics (1)
- Images (29)
- Videos (8)

PLAN AN INTERACTIVE EXPERIENCE

Find all simulations across any subject with **Advanced Search**.

1. Navigate to **Advanced Search**. Use the **by content type** filter to select **Simulations** and run a search.
2. On the search results page under the **Filter Your Results** section, click **Start the Topic Finder**.
3. Drill into the **Topic Finder** tiles to narrow by area of study. Click to access a simulation.

Advanced Search

Search for in

And in

And in

MORE OPTIONS

- Full Text Documents
- Peer-Reviewed Journals
- Document Contains Images
- Leveled Documents

by publication date(s):

All Dates Before On After Between

by document type:

by content type:

TOPIC FINDER

Graphic Methods, Gas Laws, Energy, Genetics, Rate, etc.

Use **Get Link**, **Send to Google Drive™**, **Send to Microsoft OneDrive™**, or share via **Google Classroom** to direct students to the simulations and incorporate into lessons.

LEARN

MORE at support.gale.com or contact your librarian.