

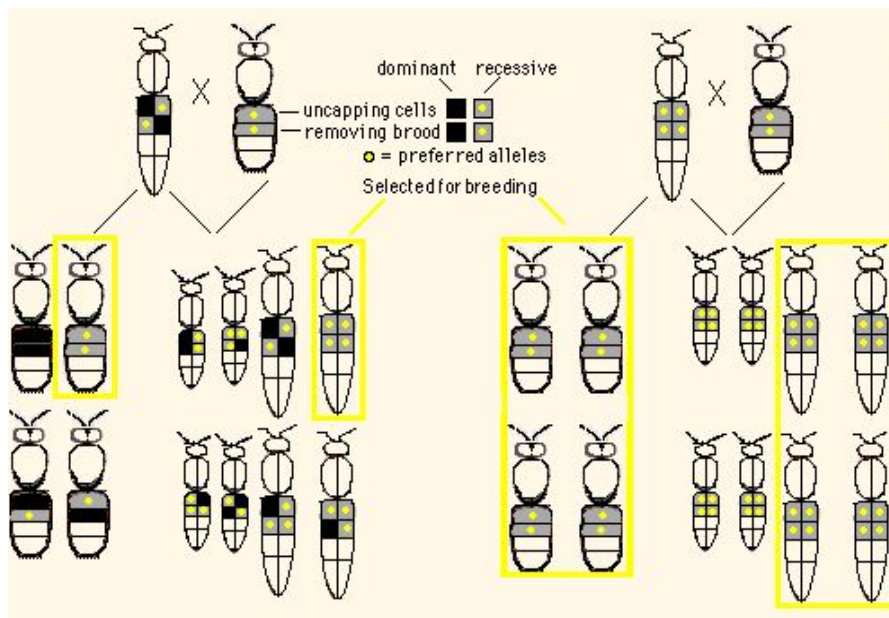
Hox Genes & Bee Genetics

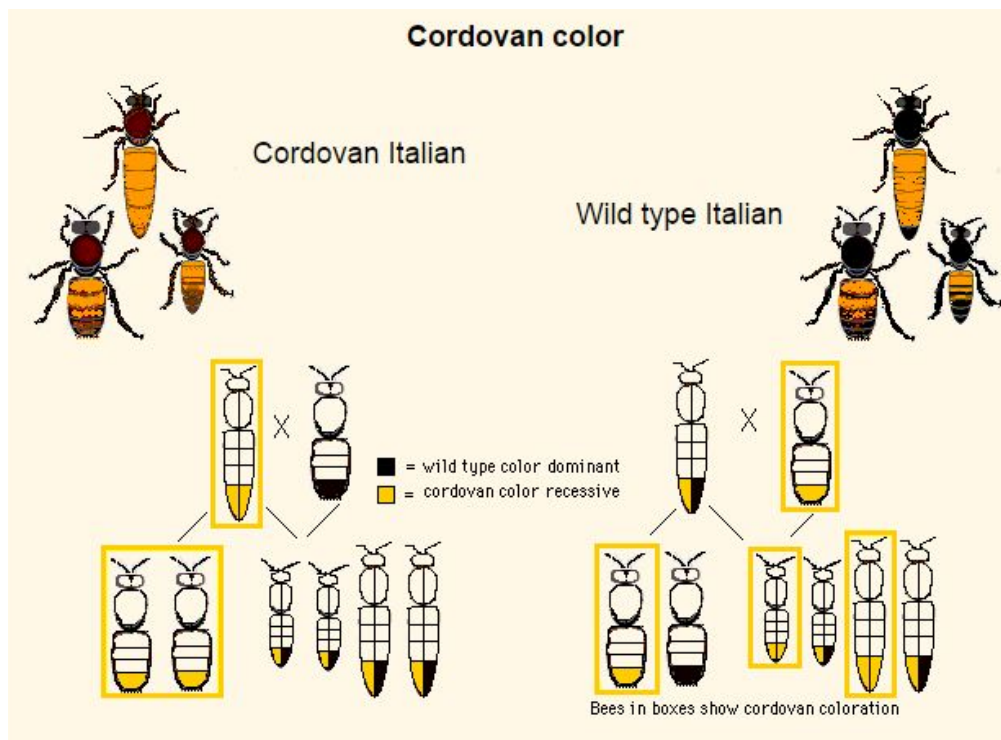
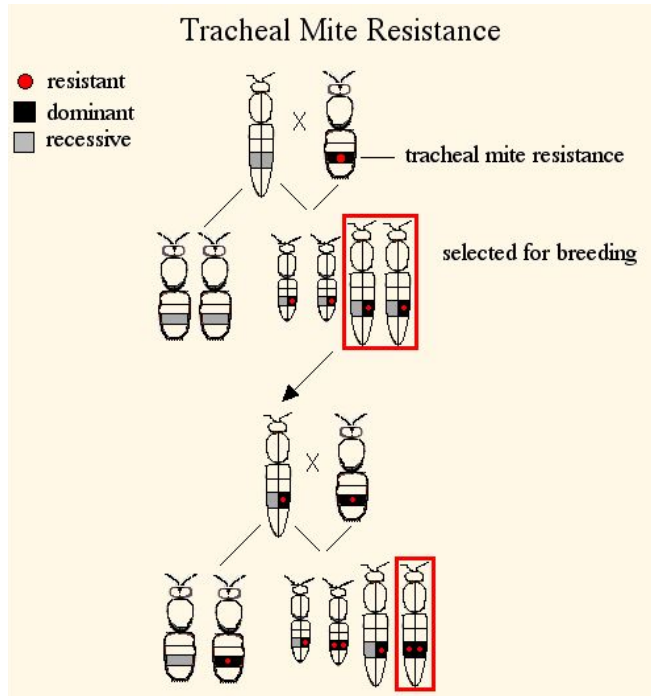
Objectives (NGSS Standards)

- HS-LS1-1
- HS-LS4-1
- HS-LS3-2
- HS-LS3-1
- HS-LS4-3

Terms to Know:

- ❖ Amfor
- ❖ PKG
- ❖ Hox genes
- ❖ Africanized bees
 - Why are they aggressive?
- ❖ Haplodiploidy
 - Bee sex determination
- ❖ Heterozygous
- ❖ Homozygous





Activities

★ Hox Genes Poster

○ Materials:

- Poster paper



- Pencils
 - Markers
 - Colored pencils
 - Laptop
- Requirements:
 - Draw out 2 organisms
 - Human & honey bee
 - Label areas of body
 - Label & define each hox gene
 - And what they cause
 - Identify the shared hox genes between the organisms
- ★ Presentation on scientific experiments
 - Materials
 - Laptop
 - Packet with experiments
 - Requirements
 - One group per experiment
 - Must include:
 - Original question of experiment
 - What was done in the experiment
 - How it was done
 - What the information gained from the experiment shows
 - Experiment results
 - What data means
 - How the results relate to the original question
- ★ Worksheet on haplodiploidy and the passing of traits
 - Materials
 - Worksheet
 - Requirements
 - Must talk/teach students example before letting them try to do it on their own

