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comic

Grace Knight

degrade

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MEALWORM

info:care

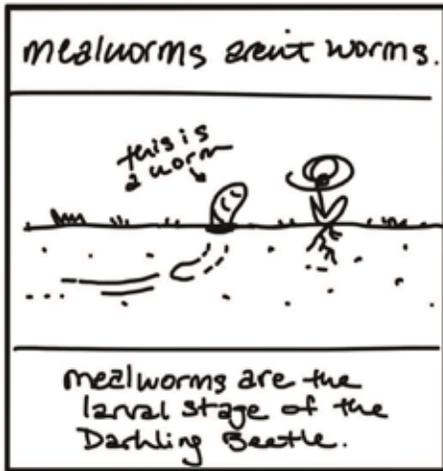
Degrade is a plastic degradation system utilizing the appetite of *Tenebrio molitor*, the Darkling Beetle. Plastic bags and Styrofoam are unable to be processed through single-stream recycling, but can be digested by these insects. As proven by Stanford, the mealworms not only consume the material, but have the ability to biodegrade the plastic and produce compostable waste. While Styrofoam is said to take a million years to breakdown, Degrade can process the plastic in weeks.

INFO

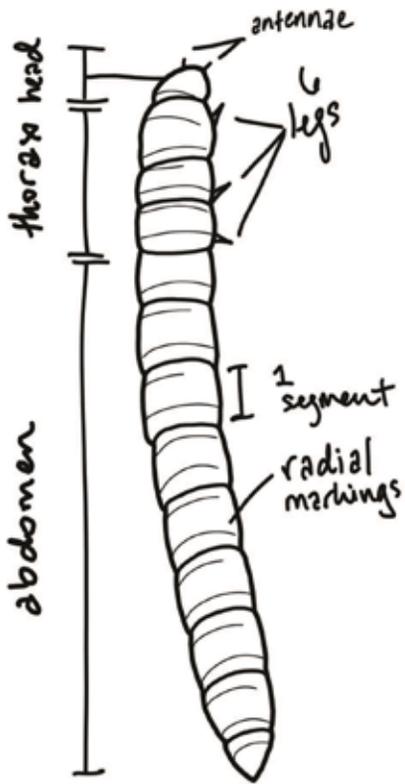
Mealworms are used as a cheap, nutrient-rich feed for farmed fish, poultry, pigs, crustaceans, and lizards.



also, commonly used in labs and classrooms as model organisms to study biology, genetics, and ecology.

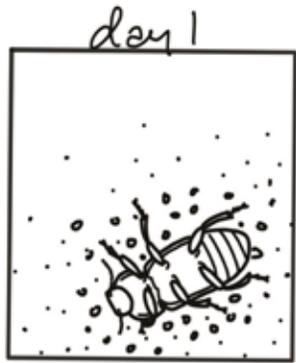


females lay hundreds of eggs into the substrate. Don't toss when cleaning to continue the lifecycle.

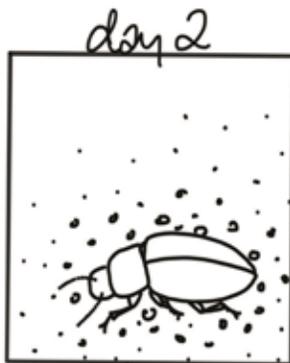


NAME:
 Animalia
 Arthropoda
 Insecta
 Coleoptera
 Tenebrionidae
 Tenebrio
 molitor

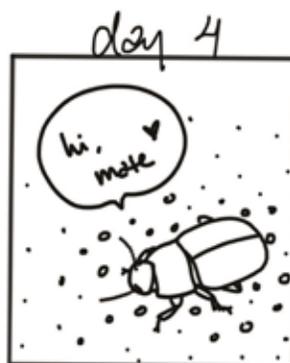




they eclose blonde



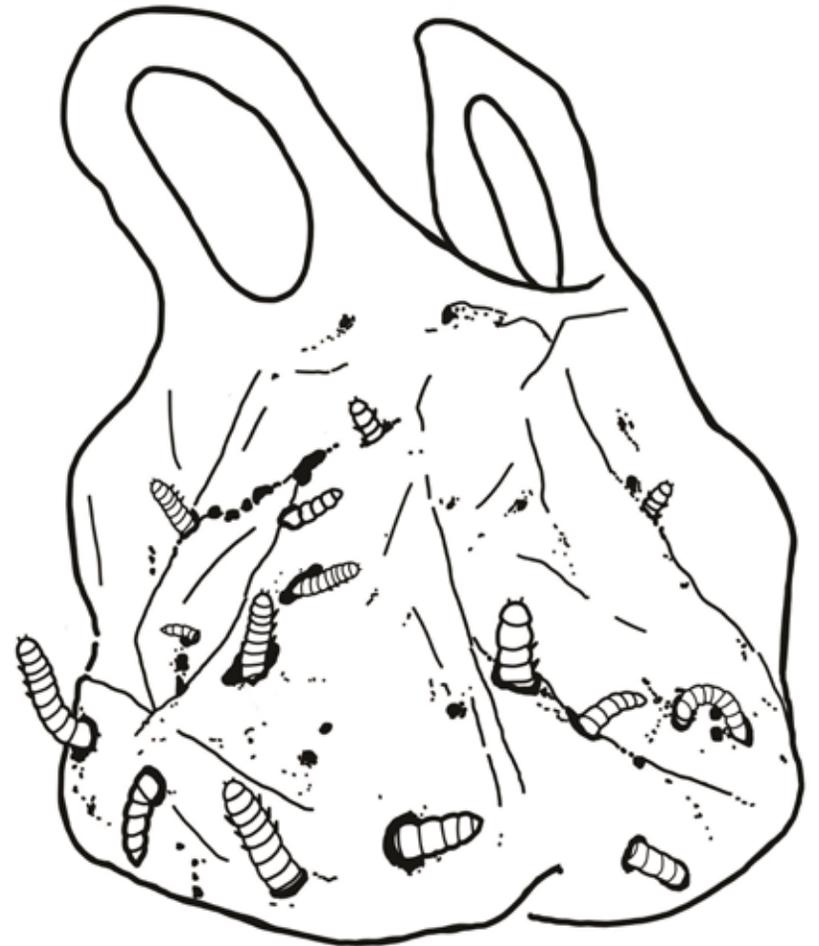
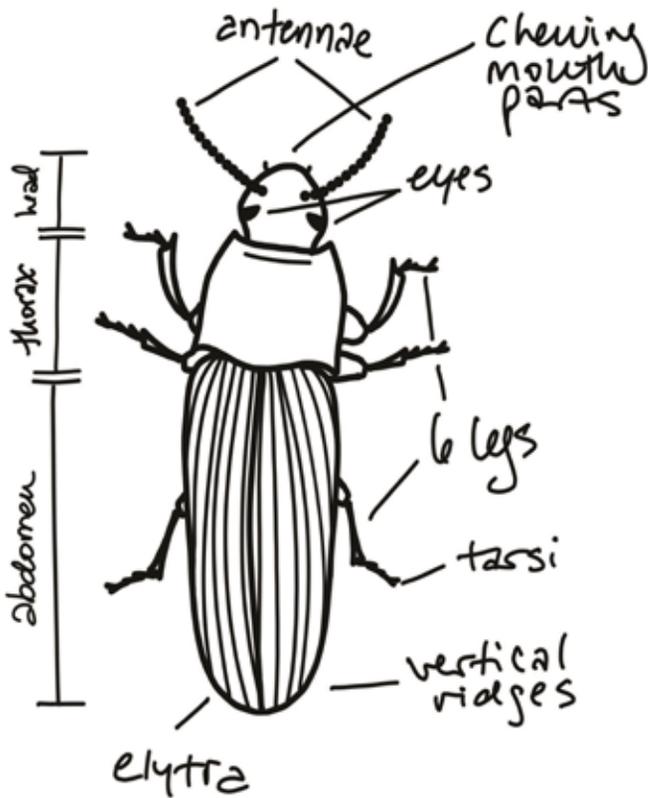
turn to brown

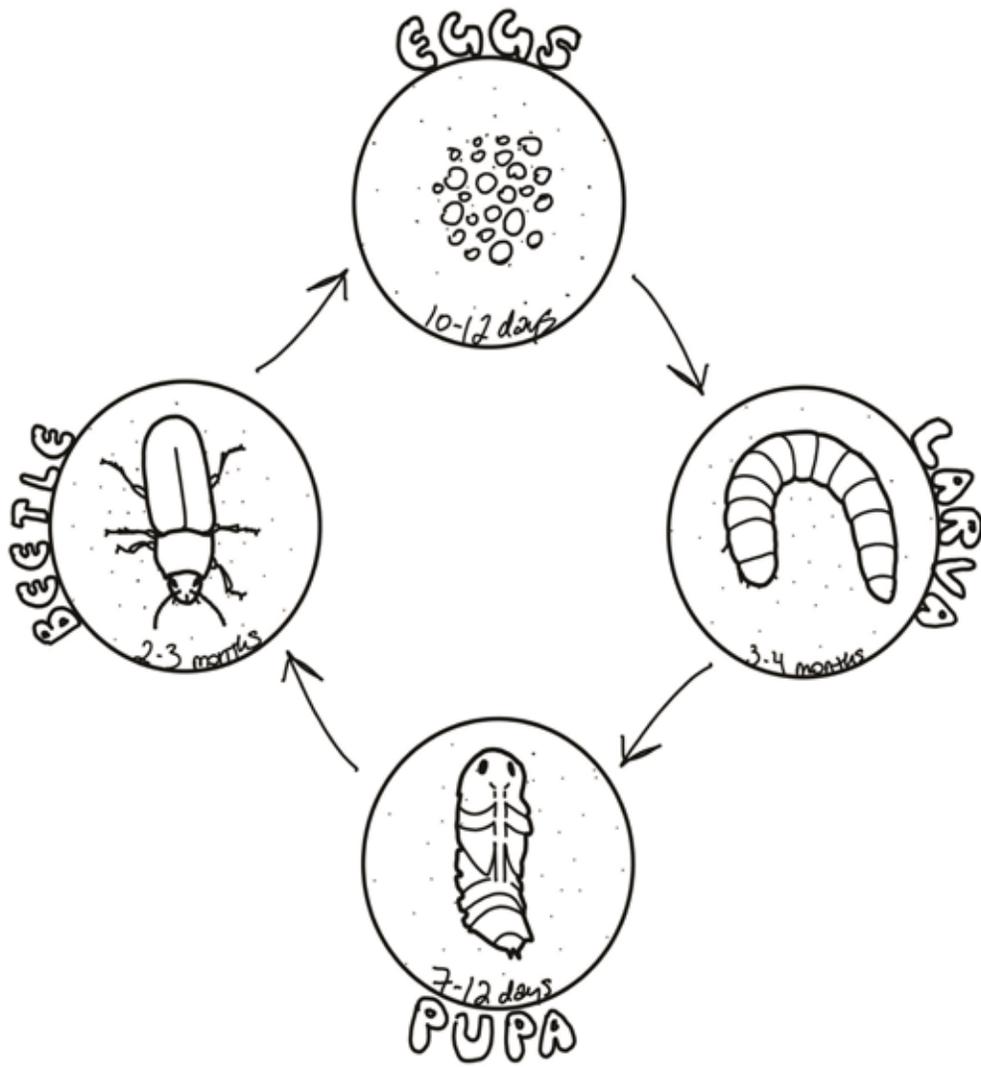


then black when mature

During the larval stage the mealworm is gathering energy for

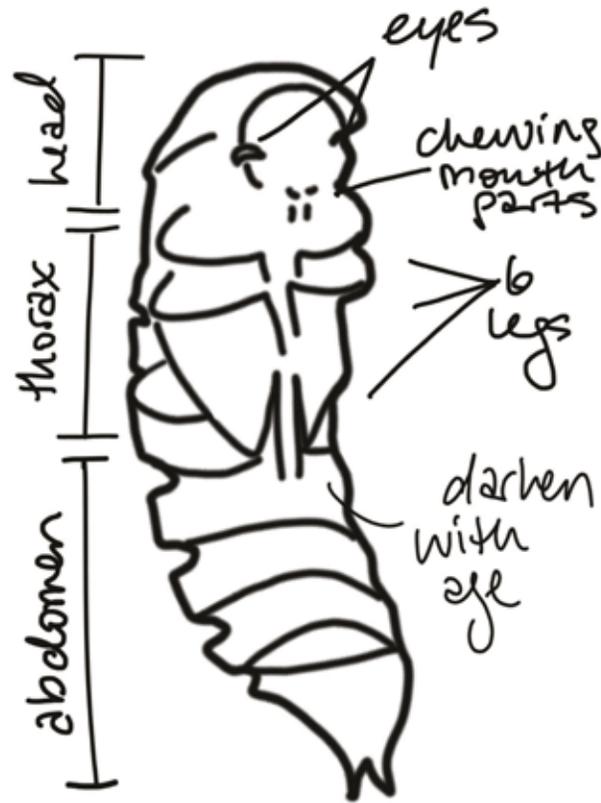
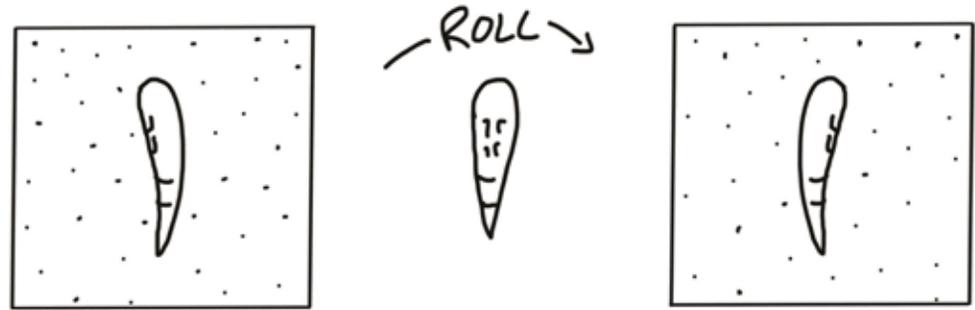
- metamorphosis -





time spent in each stage is dependent on humidity, temperature, water and food sources.

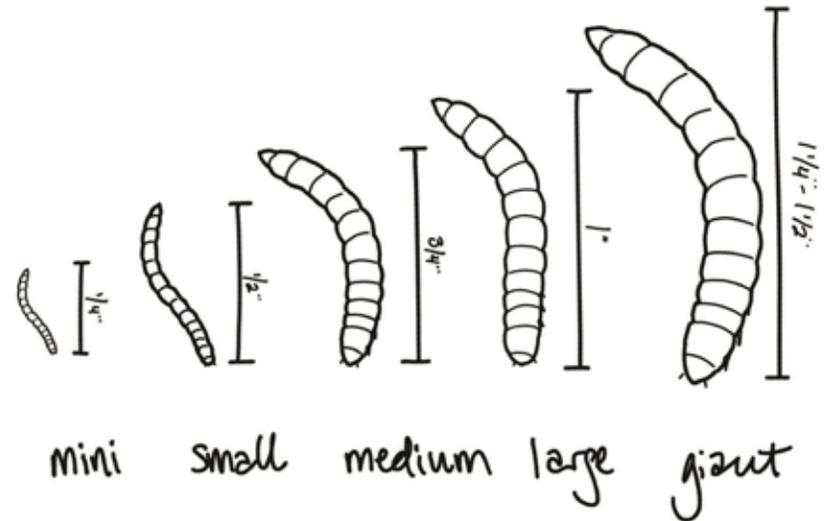
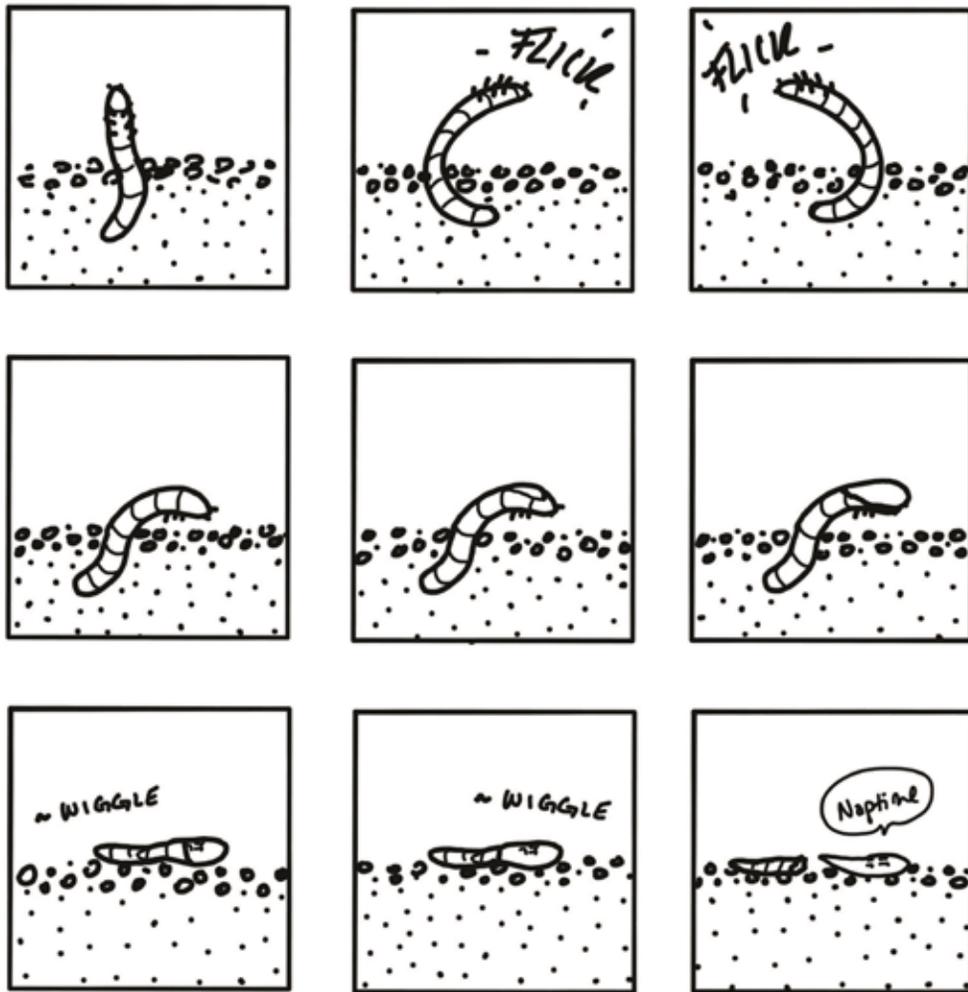
pupae don't need food and barely move.



they'll eclose to become a beetle that day

Soon the mealworm will become sluggish and consuming less food. They're ready to pupate!

During the 3-4 months, the larvae will grow rapidly and shed their chitin exoskeleton around 20 times!



Chitin (KAI-tin) can be used to make bioplastic.