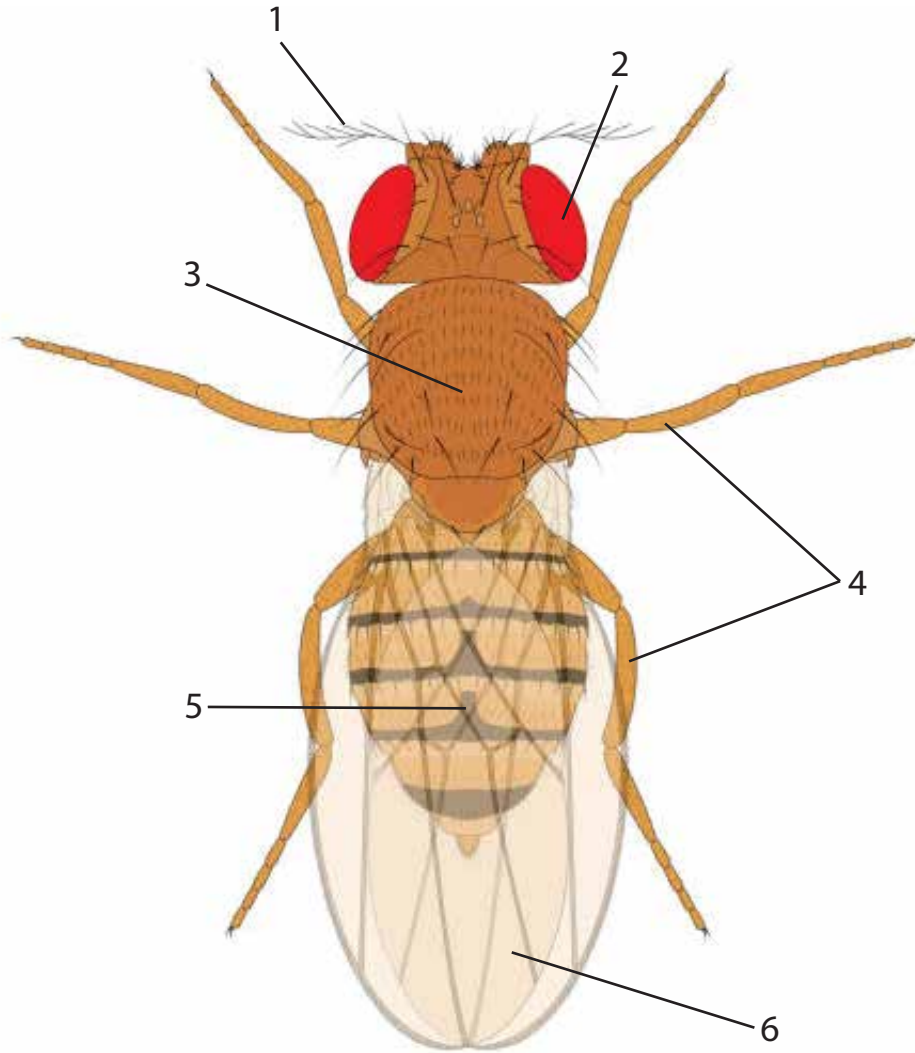


At the Morgridge Institute for Research, we use fruit flies as a model organism to understand how stem cells in tissues respond to changes in the body and the environment.
Learn more at morgridge.org



Match the number with the correct body part from the list on the right (below).

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____

- Abdomen
- Antenna
- Compound eyes
- Legs
- Thorax
- Wings

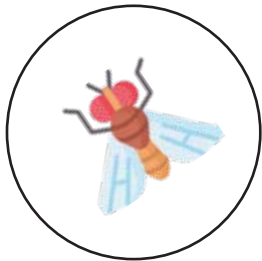
A model organism is a living thing that scientists study to learn about biology. Many model organisms share important features with humans, helping scientists to understand how our bodies work. Match the traits from the box with a corresponding model organism below.

Hint: Some traits belong to more than one model organism!

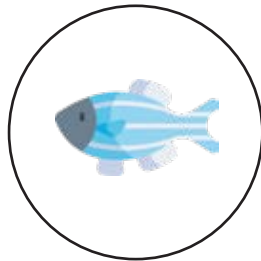
Learn more at morgridge.org

Model Organism Traits

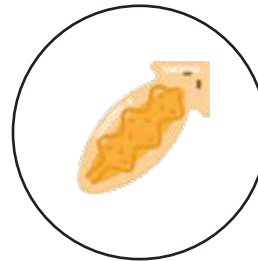
4 chromosome pairs	Fully sequenced genome	2 - week life cycle
Shares 95%-98% of their genes with humans	Active in the daytime and rests in the evening (diurnal)	6 week - life cycle
Abundance of ciliary structures	Bites or chews in order to eat	3 - month life cycle
Has a spine	Has eyes made up of over 700 individual lenses	Rely on pluripotent stem cells to repair and maintain tissue
Is a mammal	10-12 day life cycle	Translucent embryo



Fruit Fly
(*D. melanogaster*)



Zebrafish
(*Danio rerio*)

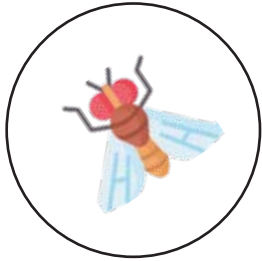


Flatworm
(*S. mediterranea*)



Mouse
(*Mus musculus*)

Model Organism Traits Answer Key



Fruit Fly
(*D. melanogaster*)

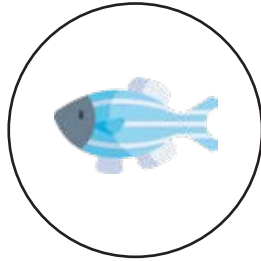
Fully sequenced genome

4 chromosome pairs

10-12 day life cycle

Active in the daytime and rests in the evening (diurnal)

Has eyes made up of over 700 individual lenses



Zebrafish
(*Danio rerio*)

Fully sequenced genome

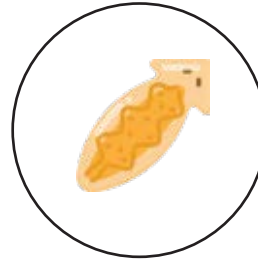
Has a spine

3 - month life cycle

Active in the daytime and rests in the evening (diurnal)

Translucent embryo

Bites or chews in order to eat



Flatworm
(*S. mediterranea*)

Fully sequenced genome

4 chromosome pairs

2 - week life cycle

Rely on pluripotent stem cells to repair and maintain tissue

Abundance of ciliary structures



Mouse
(*Mus musculus*)

Fully sequenced genome

Has a spine

6 week - life cycle

Shares 95%-98% of their genes with humans

Is a mammal

Bites or chews in order to eat