Lesson 1: Introduction to Model Organisms

Table Talk/ Think-Pair-Share

I. Photos to Use:

(Display on board for all students to see)

| 1. | 2. | 3. |
| --- | --- | --- |
| 4. | 5. | 6. |
| 7. | 8. | 9. |

II. Questions to Pose:

(Allow students to discuss each question and write down answers in their notebooks)

1. Can you name any of the species you see in the photos?
2. What physical characteristics do the organisms in the photos have in common? Which characteristics are unique to each?
3. How do you think any or all of these organisms are similar to humans?
4. All of these organisms are important to biological science and they are referred to as “model organisms.” What do you think this term means?

III. Photo Information:

(Reveal the identities of the organisms to students)

| 1.  Organism: Atlantic Horseshoe Crab  (*Limulus polyphemus*)  Photo Source: [Pixabay-Pexels](https://pixabay.com/photos/horseshoe-crab-marine-life-ocean-1869338/) | 2.  Organism: Fruit Fly  (*Drosophila melanogaster*)  Photo Source: [Pixabay- Nuzree](https://pixabay.com/photos/fruit-fly-fly-inset-wings-flying-219392/) | 3.  Organism: Axolotl  (*Ambystoma mexicanum*)  Photo Source: [Pixabay- LaDameBucolique](https://pixabay.com/photos/axolotl-leucistique-male-ambystoma-2193331/) |
| --- | --- | --- |
| 4.  Organism: Zebrafish  (*Danio rerio*)  Photo Source: [Pixabay-](https://pixabay.com/photos/danio-rerio-zebrafish-fish-aquarium-4996610/)  [Kuznetsov\_Peter](https://pixabay.com/photos/danio-rerio-zebrafish-fish-aquarium-4996610/) | 5.  Organism: Mouse  (*Mus musculus*)  Photo Source:  [Pixabay- Ralphs\_Fotos](https://pixabay.com/photos/house-mouse-mouse-long-tailed-mouse-5043031/) | 6.  Organism: Yeast (*Saccharomyces cerevisiae*)  Photo Source: [CDC/Dr. Hardin](https://phil.cdc.gov/Details.aspx?pid=22987) |
| 7.  Organism: Longfin Inshore Squid (*Doryteuthis pealeii*)  Photo Source: [Wikimedia Commons- Smithsonian Environmental Research Center](https://commons.wikimedia.org/wiki/File:Doryteuthis_pealeii_%28I1398%29_0945_%2830380298154%29.jpg) | 8.  Organism: Western Clawed Frog (*Xenopus tropicalis*)  Photo Source: [Rawpixel- Smithsonian Institution](https://www.rawpixel.com/image/3060882/free-photo-image-african-claw-toed-frog-clawed-toad) | 9.  Organism: Nematode Worm  (*Caenorhabditis elegans*)  Photo Source: [Wikimedia Commons- Bob Goldstein](https://commons.wikimedia.org/wiki/File:CelegansGoldsteinLabUNC.jpg) |