

# **High School Science Virtual Learning Applied Biological Science Parasites & Life Cycles** April 17, 2020



## High School Applied Biological Science Lesson: April 17, 2020

## **Objective/Learning Target:** Define and explain the importance of a life cycle of a parasite.



- 1. Watch this video on parasites and life cycles.
- 2. Why are life cycles useful for studying parasites?



## Let's Get Started: Answer

- 1. Watch this video on parasites and life cycles.
- 2. Why are life cycles useful for studying parasites?
  - a. They inform how the parasite can spread in a community and environment and help with preventing new infections



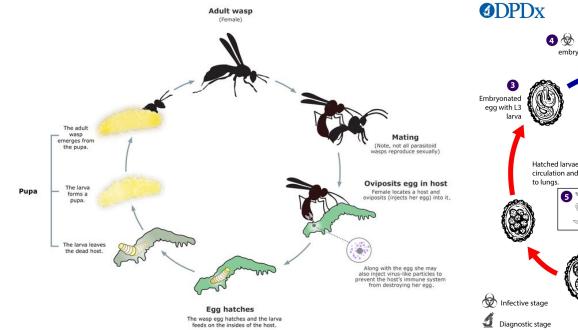
Lesson Activity:

Click on the link to this radiolab episode on parasites. Then answer the following questions for each of the 5 parasites discussed (Parasitic wasp, parasitic nematode, blood fluke, human hookworm, *Toxoplasma gondii*)

- Describe the life cycle.
- What is something interesting you learned?



### Lesson Activity: Answer Parasitic wasp



#### parasitic nematode Ascaris lumbricoides 4 🐼 Ingestion of Larvae are coughed up Ø and swallowed, re-entering embryonated eggs the gastrointestinal tract. Maturation proceeds in the small intestine. 0.5 d Hatched larvae enter 6 circulation and migrate Adults in small intestine

2 Pertilized egg

J 2 Unfertilized egg

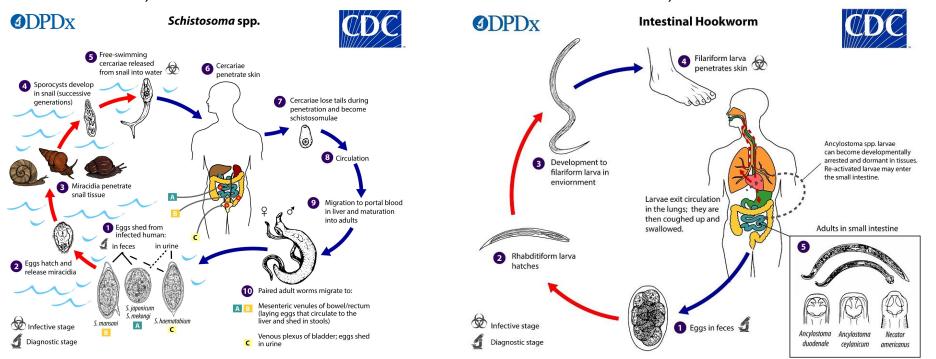
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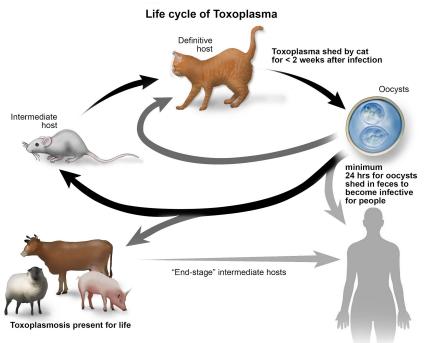
## Lesson Activity: Answer blood fluke,



human hookworm,



### Lesson Activity: Answer Toxoplasma gondii





## **Practice Questions**

Identify which parasite the following characteristics belong to.

- 1. You would expect this parasite to be more common in a household with cats.
- 2. Lays eggs in insects and then bursts out of insect when mature
- 3. Primary means of human infection is burrowing through skin in foot
- 4. Uses a snail to allow for parasites to mature
- 5. Your risk for this parasite significantly increases if you don't wash your hands



## **Practice Questions - Answers**

Identify which parasite the following characteristics belong to.

- 1. Toxoplasma gondii
- 2. Parasitic wasp
- 3. Human hookworm
- 4. Blood fluke
- 5. Parasitic nematode



## **Additional Practice Questions**

- Check your understanding by explaining how to limit the transmission of each of the following parasites using the <u>CDC website</u> and what you learned in the previous activity:
  - Toxoplasma gondii
  - Blood flukes
  - Human hookworms
  - Parasitic nematode



## **Additional Practice**

- View this <u>video</u> on how these parasites and others can affect the brain and cause behavioral change.
- Choose an additional parasite from <u>this website</u> to research and describe its life cycle in a paragraph.