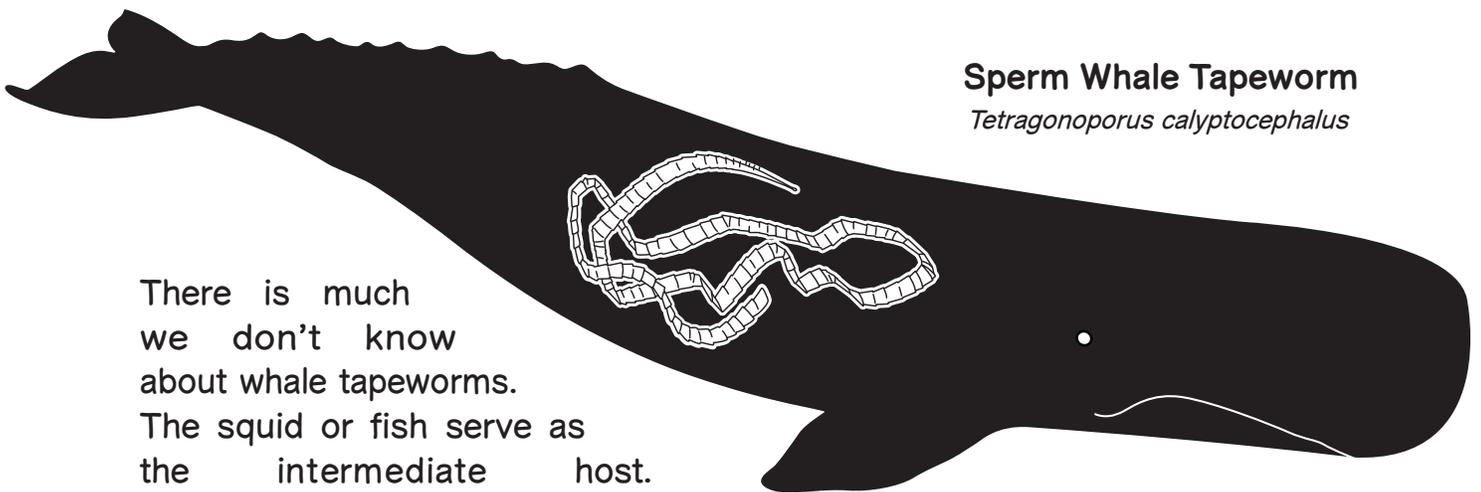


WHALES HAVE TAPEWORMS?

by Aaron Sutherlen, Judy Diamond, Gabor Racz, and Scott Gardner

What is about 30 meters long, skinny as your arm, and lives in the largest animal on Earth? A tapeworm, of course! This adaptable animal gets a free ride across the oceans as the whale migrates. And along the way, it sheds hundreds of millions of eggs.

It works like this: the whale feeds on squid or fish infected with the tiny tapeworm larvae. The larvae develop into adult worms in the whale's intestine, where they continue to grow. The head of the worm remains a tiny appendage – in real life smaller than an ant. Over time it will add one section after another, getting longer and longer. The sections are pretty flexible and can contract or stretch out. Each section contains both male and female reproductive organs, and each eventually gets packed with eggs. When a section drops off, the eggs disperse, ready to be eaten by another host.



Sperm Whale Tapeworm

Tetragonoporus calyptocephalus

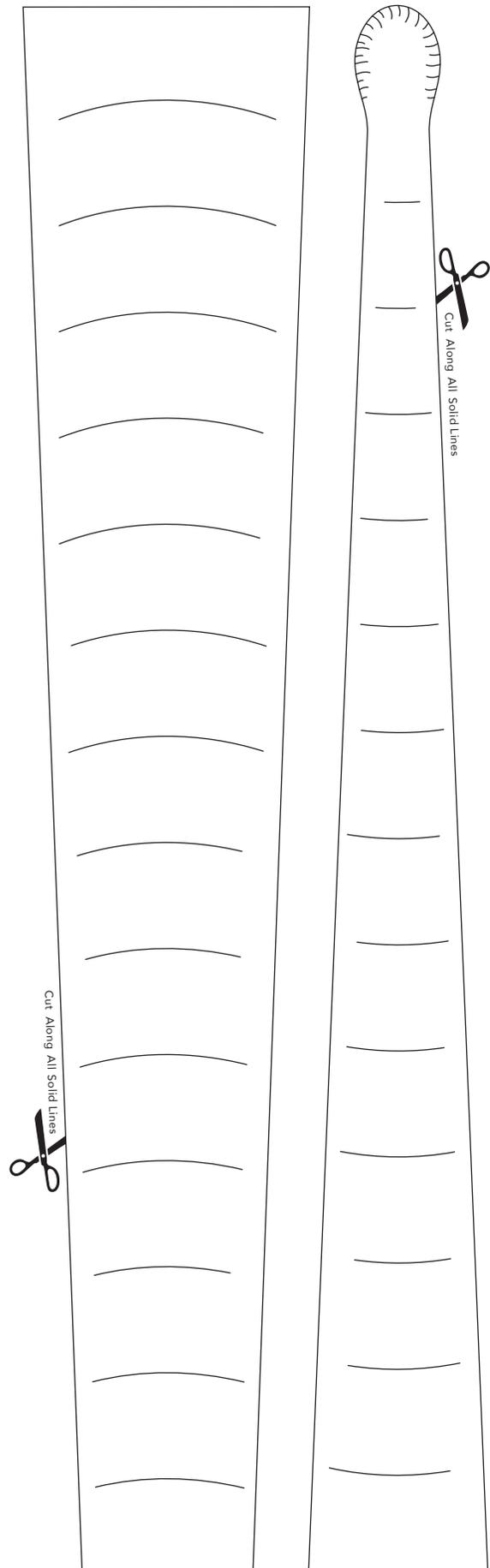
There is much we don't know about whale tapeworms. The squid or fish serve as the intermediate host.

**In this activity, construct a life-sized whale tapeworm.
Then hang it from your ceiling!**

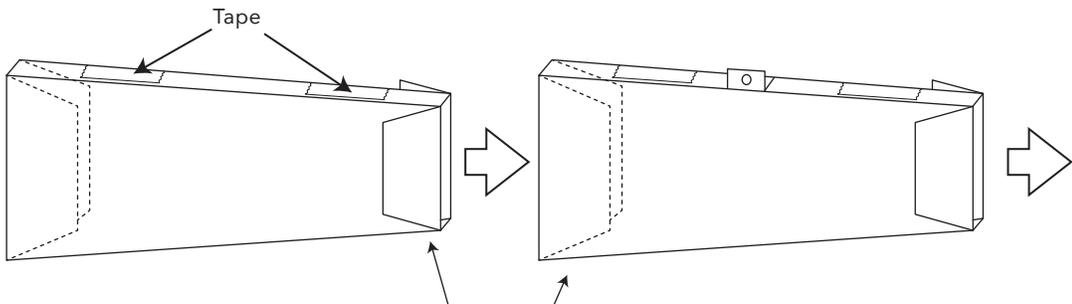
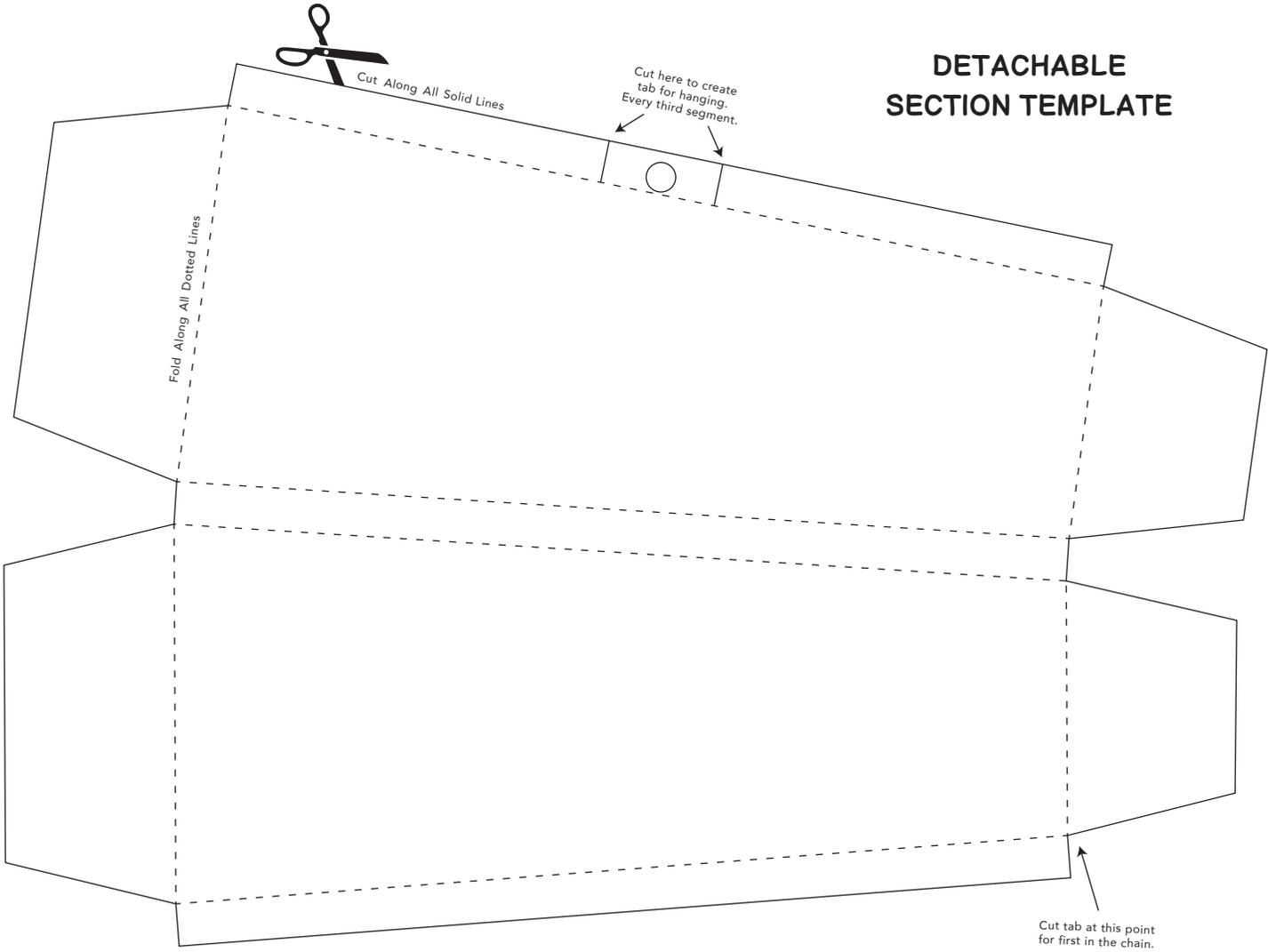
ANTERIOR TEMPLATE

INSTRUCTIONS:

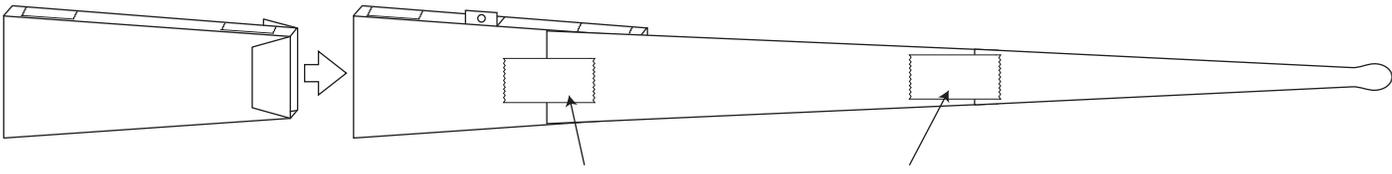
- A. For each tapeworm, you will need one copy of the anterior template (enlarged from actual size) and 30-200 copies of the section templates (depending on how long you want your tapeworm to be).
- B. Cut and attach two pieces of the anterior template.
- C. Have each person take one or more detachable sections to cut and fold.
- D. Attach the anterior piece to the many detachable sections to make your full-sized tapeworm.
- E. Attach your model to your ceiling tiles.



DETACHABLE SECTION TEMPLATE



Insert small end with tabs folded towards the outside into larger end with tabs folded towards the inside. The tabs will interlock when overlapped.



Tape the two pieces of the Anterior together.



CONSIDER: How does this parasite make its living inside another animal and yet still manage to travel around?

This activity was developed for the Manter Laboratory of Parasitology at the University of Nebraska State Museum. Permission is given to educators to reproduce this activity for non-commercial use only. This material is based on work supported by the National Science Foundation under Grant #DBI-1756397, *Natural History: Digitizing and Conserving Specimens in the Manter Laboratory of Parasitology*. Any opinions, findings and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF.

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