



## Table of Contents

Maine Science Assessment Practice Test .....	3
Supplemental Materials and Resources .....	3
Universal Features, Designated Supports/Features, and Accommodations .....	4
Grade 8 Practice Test Table of Rationales and Exemplars .....	5
Rubrics .....	17
Item 03 Part B - Which Came First? .....	17
Item 04 Part B - Which Came First? .....	19
Item 09 - Popping Bike Tire .....	21

# Maine Science Assessment Practice Test Supplemental Materials and Resources

## Grade 8

There are two systems that can be used to help prepare your student for the Maine Science Assessment.

1. The [Maine Science Assessment Tutorial](#) is a set of online questions that allow students to better understand and practice using the tools and response methods they may experience using ADAM, the Maine Science Assessment platform. This tutorial does not provide practice on the content or item types from a content perspective. It will, however, provide exposure to the navigation, tools, accessibility features, and methodology for responding to item types such as drag and drop and other technology-based item types that require manipulation of the mouse.

Tutorial test code:

- No Text-to-speech (TTS): STUTOR
- Text-to-speech (TTS) enabled: STUTORT

2. The Grade 8 [Maine Science Assessment Practice Test](#) is an online set of scenarios and items meant to familiarize students with the types of questions they may encounter when they take the Maine Science Assessment. The practice test is not scored, nor are the students' answers retained. Each online question can be answered and checked via the online interface. The students will receive real-time feedback that indicates the accuracy of their answers using the following messages:

- Correct, way to go!
- Incorrect, you may want to try again.

Practice Test code:

- No Text-to-speech (TTS): SPTGR8
- Text-to-speech (TTS) enabled: SPTGR8T

Each student has up to three (3) attempts to reason through and find the correct answer. The rationales, or reasons why the incorrect answers are wrong, can be found starting on page 5 of this packet and should be used to help explain the error that they likely made that led them to choose that specific wrong answer. The rationales are developed based on the most frequent errors and may not be the exact logic or factual error a student made.

For test questions that are not scored by the system, those that require a written or constructed response, we recommend that students answer these questions on paper so that their responses can be reviewed against the rubric and discussed outside of the system. The rubrics for these questions can be found starting on page 5 of this packet.

While these tools do not take the place of your science instruction, which is the number one preparation that all students should receive, we do recommend that you have students access and take the tutorial (see URL below) to familiarize themselves with the ADAM platform, navigation, and features. Once there is good familiarity with the platform, we recommend that your students work through the practice test (see URL below) to become acquainted with how their science content will be assessed during the Maine Science Assessment.

Links:

- Maine Science Assessment Tutorial: <https://adamexam.com/tester/>
- Maine Science Assessment Practice Test: <https://adamexam.com/tester/>
- Supplemental Materials and Resources: <https://mescience.zendesk.com/hc/en-us/sections/1500001237162-Resources-Document-Downloads>

## **Universal Features, Designated Supports/Features, and Accommodations**

The full list of Universal Features, Designated Supports/Features, and Accommodations for students with disabilities and English learners can be found in Appendix A of the [\*Maine Principal and Assessment Coordinator \(PAC\) Manual\*](#).

## Grade 8 Practice Test Table of Rationales and Exemplars

Item Number	Part	ACO A	ACO B	ACO C	ACO D	ACO E	Rationale	Exemplar
Chicken Egg								
1	N/A	This is incorrect because having unique methods of locomotion is not evidence of common ancestry.	This is incorrect because using oxygen as a primary means of respiration is not evidence of common ancestry.	This is incorrect because eyes adapted to the environment is not evidence of common ancestry.	This is correct because embryological development is evidence of common ancestry.	N/A	N/A	N/A
2	N/A	This is incorrect because according to the cladogram, multiple organisms between the frog and the chicken have legs. Therefore, the chicken's legs did not directly evolve from frogs.	This is correct because the cladogram shows modern day organisms that are connected by recent common ancestors. Therefore, the chicken and frog share a recent common ancestor.	This is incorrect because the cladogram does not show characteristics of social behavior. It only shows evolutionary relationships between organisms.	This is incorrect because according to the cladogram, crocodiles, snakes, and lizards are located between the chicken and frog. This means that even though these organisms have scales, they are more closely related	N/A	N/A	N/A























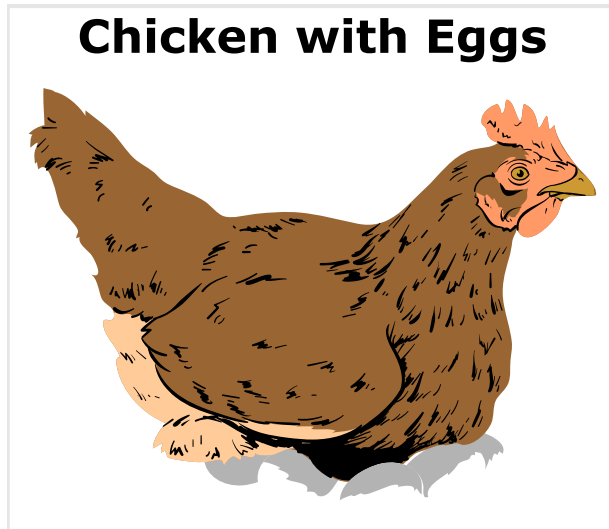




## Rubrics

### Item 03 Part B - Which Came First?

Satomi has heard the familiar question, “Which came first, the chicken or the egg?” She understands that a chicken is needed to lay an egg, and also that chickens come from eggs. So, which came first, the chicken or the egg? Satomi wants to investigate.

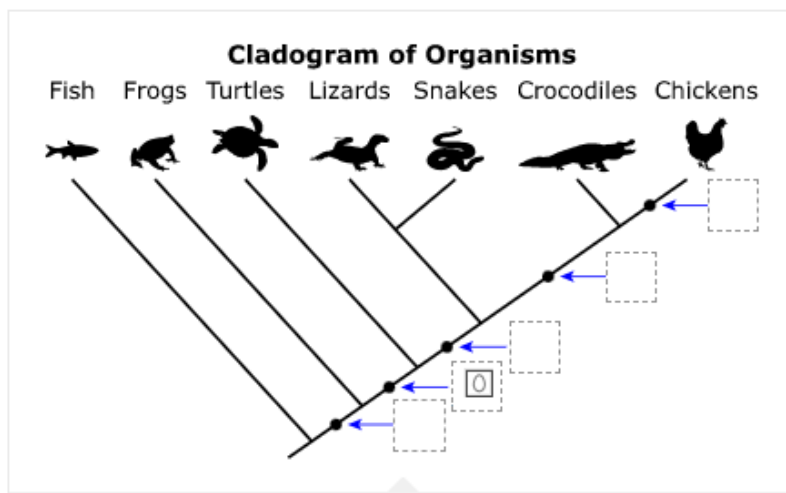


To better understand the evolution of shelled eggs, such as the type chickens lay, Satomi wants to determine where in evolution shelled eggs first appeared.

Satomi will use the cladogram to identify the point throughout the evolution of organisms that shelled eggs likely first appeared.

#### Part A

At which point on the cladogram did shelled eggs likely first appear?

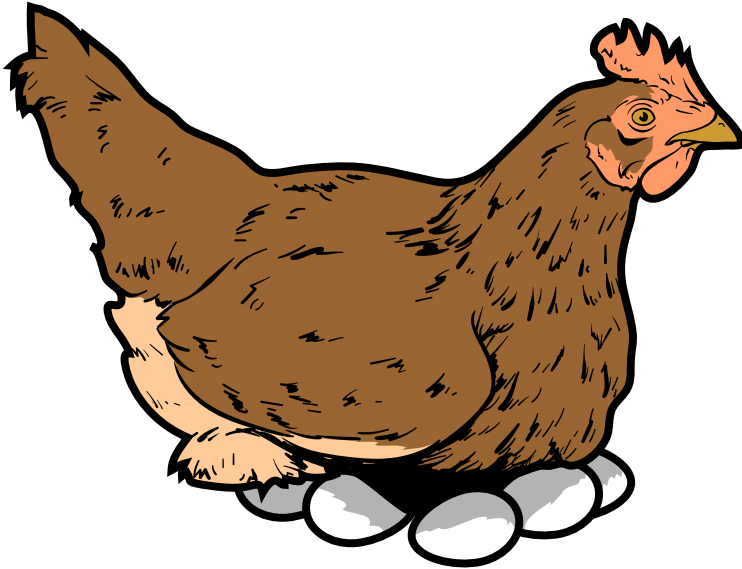




## Item 04 Part B - Which Came First?

Satomi has heard the familiar question, “Which came first, the chicken or the egg?” She understands that a chicken is needed to lay an egg, and also that chickens come from eggs. So, which came first, the chicken or the egg? Satomi wants to investigate.

# Chicken with Eggs

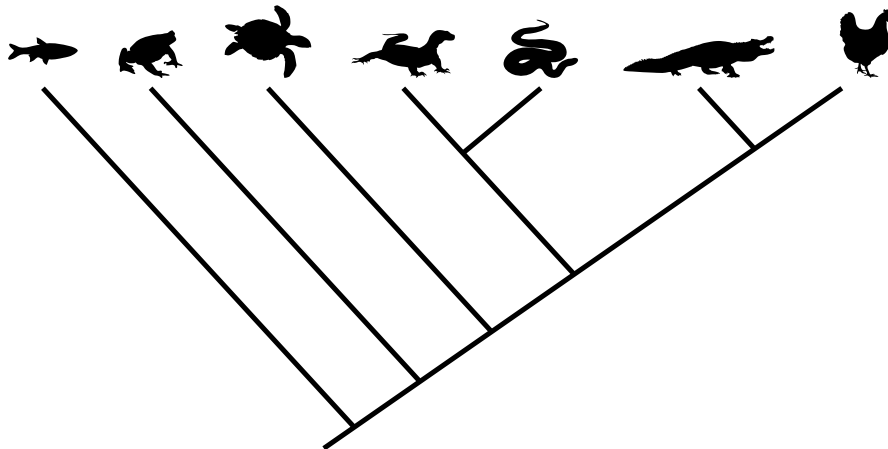


### Part A

Which came first, the chicken or the egg?

### Cladogram of Organisms

Fish   Frogs   Turtles   Lizards   Snakes   Crocodiles   Chickens





## Item 09 - Popping Bike Tire

Leo lives in the desert, where outdoor temperatures can vary greatly from morning to night. Early one morning, Leo notices that his bicycle tire is flat, so he pumps air into both tires until they feel hard when he squeezes. He then goes for a ride although it is cold outside ( $-3.9^{\circ}\text{C}$ ). Later that afternoon, Leo takes another ride with his friend, Juan. The day is now much warmer ( $38^{\circ}\text{C}$ ). Part of the way through this ride, Leo hears a loud pop and sees that one of his tires has gone flat.

