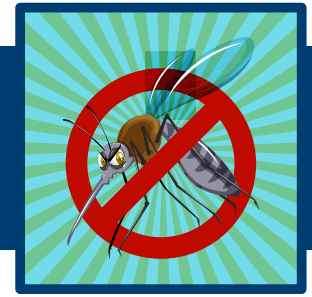


Teacher Directions

UNIT: CHIKUNGUNYA

LESSON 3: CHIKV?!? I HAVE QUESTIONS!

Activity 3A: Peeking Inside CHIKV



TEXAS BIOMEDICAL
RESEARCH INSTITUTE
HEALTH STARTS WITH SCIENCE

Instructional Objectives: Students will...

- › Evaluate the transformed article, Chikungunya, Silly Name, Serious Virus, as they annotate the article.
- › Interpret data from the transformed article, Chikungunya, Silly Name, Serious Virus.
- › Generate questions based on article content, including data.

Materials

- › Copy of the article
- › Pens and/or highlighters for annotation
- › Annotation Organizer
- › Processing out questions



Education Standards

TEKS: Processing: (MS) 1.F, 1.G **(HS)** 1.A, 1.F, 1.G, 2.B, 3.A, 3.B, 3.C, 4.A, 4.B, 4.C

Content: (MS) 7.13.A, 5.13.A **(HS)** B.5.D, B.7.D, B.12.A, E.8.

ELPS: C.1.B, C.1.E, C.2.H, C.2.G, C.3.D, C.3.E, C.3.G, C.4.D, C.4.F, C.4.H, C.4.K, C.5.F



Time frame: Close-Read the Scientific Article/Whole Group Discussion 20-40 min

Step 1: Close Read the Scientific Article

- › Provide each group/student with a copy of the scientific article.
 - ➔ Step one can be done individually or with small groups. It may also be advantageous to conduct the close read as a whole class.
- › While reading, students may use the Annotation Organizer tool to record their annotations for each section of the article.

MIDDLE & HIGH SCHOOL LEVEL

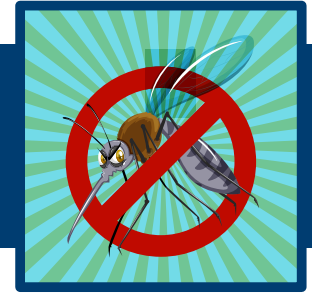
Teacher Enrichment Initiatives (TEI) | NIH SEPA | ©2026 | TxBiomed.org
NIH SEPA Project #1R25GM142021-01A1 | Some graphic elements courtesy of [Freepik](https://www.freepik.com)

Teacher Directions

UNIT: CHIKUNGUNYA

LESSON 3: CHIKV?!? I HAVE QUESTIONS!

Activity 3A: Peeking Inside CHIKV



- Clarify with the students that the Annotation Organizer is a living document meaning that when groups collaborate/discuss article, their knowledge change and their document will change as well. New questions will be raised and clarifications for definitions will be refined through discussion.

Student instructions

Step 2: Whole-Group Discussion

- › Review the living document together, noting which questions that were answered by the text and which definitions need clarification and which student questions remain.
- › Encourage groups to propose additional questions stemming from their reading.
- › Ask students to identify what still needs explaining and what scientists might want to investigate further.
 - In preparation for Activity 3B, instruct students to write out questions they have for a scientist who investigates CHIKV.
- › **If planning to conduct Activity 3B, start with questions generated by students in Activity 3A.**
- › Additional questions to ask students in preparation for Activity 3B:
 - Theorize or attempt to answer one of these questions based on the given resources (Research?).
 - Who would be the most appropriate person to answer your question?
 - What might be some follow-up experiments a scientist could do based on these graphs?
 - How do you think these graphs connect to the bigger picture of CHIKV replication?
 - If you were a scientist investigating CHIKV, what questions would you want to answer after seeing this data?