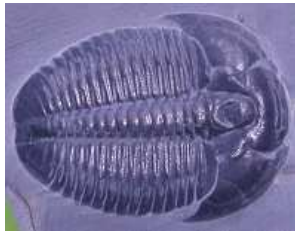


Lab specimens: Two *Elrathia kingii* specimens – an ‘original’ creature and a molt.

*Elrathia kingii*, the most familiar and abundant trilobite fossil in North America, was found only in what is now the state of Utah. Its success appears to have been due mainly to its ability to survive in environments with very low oxygen levels.



Specimen A



Specimen B



Specimen C

1a. Which specimen – A, B, or C – is one of the most prized and sought-after *Elrathia kingii* specimens?

1b. Explain why these particular specimens are so highly prized by collectors?

2a. Which of the three specimens in the chart above is a molt?

2b. Explain how one can easily distinguish between an original *Elrathia kingii* and a molt.

3. What is unique about the *Elrathia kingii* fossil labeled ‘C’?

4. Why are molts so much more abundant than are original creatures?

5. How does the body of the *Elrathia kingii* differ from most other trilobites?

6. How does the matrix in which the *Elrathia kingii*'s body has been entombed differ from that of most other species of trilobites?

7. What environmental factor (see image below) indicates that *Elrathia kingii* survived in very low energy environments?