**SOLAR ECLIPSE INQUIRY/ENQUETE DE L’ECLIPSE SOLAIRE  
Middle Block**

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| **Materials Required** | **Materials Provided** |
| Scissors  Aluminum Foil  Cardboard Boxes (varying sizes preferred)  Box Tape | *Sun! One in a Billion*  *Moi, le Soleil! Unique parmi des milliards*  Word Wall  Mur de mots  KWL Chart  Tableau SVA  Procedural Writing  L’écriture procédurale  Tic-Tac-Toe Reflection  Réflexion Tic-Tac Toe  Final Reflection  Bilan de mon apprentissage |
| **ENGAGE** | |

*Pre-Reading*

1. **KWL Chart/Tableau SVA:** Create a KWL Chart/Tableau SVA either on Whiteboard or Interactive Board with the topic, “The Sun and the Solar Eclipse/Le Soleil et l’éclipse solaire”.
2. **Think-Pair-Share/Pense-Paire-Partage:** Have learners reflect on what they know about the topic and what they would like to know. They may complete this as a Think-Pair-Share activity, or a Write-Pair-Share activity using the KWL Chart worksheet.
3. **MLL Strategies:** As students organically use vocabulary words from Word Wall, ensure that the respective vocabulary word is presented and posted prominently. Ensure any remaining vocabulary words are presented to learners prior to reading.

*During Reading*

1. **Read Aloud :** Read *Sun! One in a Billion*/*Moi, le Soleil: Unique parmi des milliards*, focussing on comprehension. As students are listening, they can add to what they still wonder and have learned on their KWL Chart.
2. **Model Reading Strategies:** As you are reading, (1) connect with what learners have discussed during pre-reading, and (2) refer to word wall to build vocabulary.

*Post-Reading*

1. **Write-Pair-Share/Écris-Paire-Partage**: Have learners write what they learned from the book and connections they have made to their prior knowledge. Encourage them to also continue asking questions in the Wonder/W column. Share with the class and add findings to class KWL chart.
2. **Consolidation:** Inform students about the upcoming eclipse. They will use their prior knowledge to develop new understanding by watching the following:  
   EN: [Why people get so excited about a total solar eclipse (youtube.com)](https://www.youtube.com/watch?v=oNH3akWXaV8&t=101s)  
   FR: [Les éclipses pour enfants - L'éclipse solaire et L'éclipse lunaire - Qu'est-ce qu'une éclipse ? (youtube.com)](https://www.youtube.com/watch?v=l48qnfOZT-8&t=10s)
3. **Reflection:** Students can reflect on this learning episode using the “Tic-Tac-Toe Reflection” resource.

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| **EXPLORE** |

*Before Viewing*

1. Inform learners that there will be an upcoming solar eclipse. Present the essential question, “How can I safely view the solar eclipse”? Remind students that it is extremely dangerous to look directly at the sun.
2. Review expectations for procedural writing:
   1. Write instructions as if they were given to students in the grade below, or someone who has never watched the instructional videos
   2. Label all diagrams so readers understand better
   3. Include specific step-by-step instructions
   4. If not using numbered lists, use sequence words (*educator may want to review)*

*During Viewing*

1. Encourage learners to sketch a diagram of the pinhole projector. Encourage students to use rulers and label their diagrams.  
   EN: [How to make a solar eclipse viewer (youtube.com)](https://www.youtube.com/watch?v=PMPBWLSYKaw)  
   FR: [Fabrique ta boîte à éclipse (youtube.com)](https://www.youtube.com/watch?v=QVVsvGQz6YQ)

*Post Viewing*

1. Complete the Procedural Writing activity on how to construct solar eclipse pinhole projector.
2. Once students have satisfactorily completed their procedural writing. Have them build their projectors. Encourage them to test and make improvements to their devices using lighting in the classroom.

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| **EXPLAIN AND EXTEND** |

1. Discuss how students constructed, tested and improved their devices.
2. Discuss how the devices could be further modified in preparation for the solar eclipse.
3. Use the device to observe the eclipse. Educator may encourage learners to record observations.

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| **EVALUATION** |

1. Complete final reflection activity with students. This activity can serve as a pre-writing model for a reflection text.