Lesson Plan Template

Instructions: This lesson plan template provides a space for you to plan lessons around the Education Connections model of Sheltered Instruction (SI), which includes four strands—*define, modify, cultivate, apply*. (See page 4 of this document for more information on the four strands). Fill out the information about your lesson plan in the space provided in the left-hand column, *Lesson Information and Activities*. While you plan, list which strand(s) relates to this portion of your planning in the right-hand column, *SI Strand(s)*, along with any notes about how the strand can be implemented effectively in this lesson.

<table>
<tr><th>Lesson Information and Activities</th><th>SI Strand(s)</th></tr>
<tr><td>
Lesson Title: Climate Change_____
Content Area: Science_____ Grade Level(s): 9-10_____
Unit Description: _____
_____
Length of lesson: 3 hours total or two 90-minute class periods_____
Number of ELs: _____
<table>
<tr><td>Proficiency Levels</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>ELs (numbers and/or names)</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Classroom Setting: _____
Program Model: _____
Other relevant student information: _____
</td><td>DEFINE</td></tr>
<tr><td>
<u>Standards and Objectives</u>
<table>
<tr><td></td><td>Language Objectives</td><td>English language proficiency standards</td></tr>
<tr><td>1</td><td>Students will be able to discuss the difference between climate and weather.</td><td>English language learners communicate for Social and Instructional purposes within the school setting</td></tr>
<tr><td>2</td><td>Students will be able to discuss the text and make inferences using the ABC organizer.</td><td>English language learners communicate information, ideas and concepts necessary for academic success in the content area of Science</td></tr>
<tr><td></td><td>Content Objectives</td><td>Content Standards</td></tr>
<tr><td>1</td><td>Students will be able to discuss the central idea and accurately summarize the text.</td><td>CCSS.ELA-LITERACY.RST.9-10.2
Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</td></tr>
</table>
</td><td>DEFINE</td></tr>
</table>

2	Students will be able to use evidence from the text to create a visual representation and persuade others.	CCSS.ELA-LITERACY.RST.9-10.1 Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	

Incorporating all four language domains

Identify how each of the language demands of the tasks are related to each language domain.

	Written	Oral
Receptive	Reading Students will read the text individually and as a group.	Listening Students will discuss and listen to their group members.
Productive	Writing Students will quick write, annotate, and create a visual representation.	Speaking Students will share their ideas and discuss the text.

DEFINE

Key language for students (words and phrases, grammatical structures, sentence types, structure and amount of speech/text, organization of ideas, genre, etc.)

General academic language	Language specific to the content area
Patterns, frequent, intense, affect, effect, global, extreme, worldwide, nationwide, average, indicator, anomalies, abnormally, observations, data, rate, persistent, unusually, trends, measurements, precise, prolonged, intense	Climate, weather, temperature, precipitation, droughts, heat waves, contiguous, tropical storm, hurricanes, heat index, ecosystems, meteorologists, evaporation, water cycle, tropical cyclone

Key characteristics of teacher talk (ways to make the content comprehensible for all students, ways to model key language, etc.)

Incorporate maps to discuss where the phenomena are occurring. For example, show students the oceans on a map when discussing tropical storms. Pre- teach and practice vocabulary identified in this lesson. Utilize the video and supplementary articles before reading to build background, activate prior knowledge, and make content comprehensible.

How the lesson will incorporate bilingualism/students' native languages as resources

Students may be grouped based on native language so that they may discuss the article readings in their native language.

Materials and Texts

Name	Genre (e.g., narrative)	Level	Connection to Sts (What will this mean to them? How can you make it even more meaningful?)
Weather and Climate (see PDF)	Non fiction	10th grade	Global warming is a hot topic. There is much debate about whether or not global warming is real. Weather and climate impact us on a daily basis. Everyone plays a role in the health of our environment. Students could research climate, weather, and global warming trends in their home countries.

Supplementary Materials and Realia

Video: Global Warming 101 by National Geographic

The following Newsela articles can be used before or after reading the Weather and Climate. Newsela is free for educators, but you must sign up. Lexile levels of articles can be adjusted. Search Newsela for "climate change" to find additional articles.

- Surf's Up! But Climate Change Has Started to Hit Waves
- Climate Change is Written All Over Mummies' Faces
- Youths Worried About Earth's Future Sue Governments Over Climate Change
- PRO/ CON: Should Congress Consider Comprehensive Climate Change Laws?
- Researchers Puzzled as Climate Change Proves Beneficial to Redwood Growth

Estimated Time: 2 hours **Language Domains**: X Reading X Writing X Listening X Speaking **Grouping**: X Independent Work □ Pair X Small Group X Whole class Reason for grouping: X First language X English proficiency X Reading level X Content understanding □ Interest □ Other: **Preview**: Connections to past learning or the larger unit sequence (30 minutes) 1. Tell students that they will learn about weather and climate change. 2. Quick Write (5 minutes): Each student will respond in writing to the following question: What do you know about climate change and global warming? 3. (15 minutes) All Write Round Robin: Place students in groups of 3-5 students. Tell all everyone to take out a piece of paper to record their thoughts to this question: What role do I play in the health of our environment? Give students about 5 minutes to brainstorm ideas without editing their thoughts. Tell students that after they write their thoughts individually, they will choose a recorder for their group to capture everyone's ideas, and they will choose a representative to report out to the class (the teacher might choose these individuals ahead of time, as well). Tell students that they will discuss their individual lists with their group members and their group recorder will capture their ideas. Then, each group will share their ideas with the class. As group members discuss, they might build from each other and add more ideas. Representatives from each group share their group's ideas as a whole class. 4. Tell students that they will preview a text, divide it into parts, and share their learning with each other. 5. Distribute the text to students. 6. Tell them to individually preview the text by looking at the summary, graphics, titles, captions, and vocabulary words; think about what they will learn from this text. Ask students to share out (as a whole class) their ideas about what they will learn from the text. **Presentation**: Primary activity steps associated with lesson implementation Differentiation, scaffolding, modifications, strategies employed, interaction activities, materials integrated that function to shelter language and content for the EL students (1 hour) 1. Tell students that in order to understand the text, they must have a solid understanding of the difference between climate and weather. Tell students to read the "Weather and Climate" box on p. 27 to figure out the difference between weather and climate. 2. Draw a T- chart on the board. Write "Weather" on one side and "Climate" on the other side. Ask students to complete the T-chart with ideas from the text that illustrate the difference between weather and climate. 3. Divide students into six groups. Assign each group one of the following topics from the text: U.S. and Global Temperature, High and Low Temperature, U.S. and Global Precipitation, Heavy Precipitation, Drought, and Tropical Cyclone Activity.	**MODIFY**

4. Tell students that they will read their section of text individually and annotate the text. Then, they will discuss the text. Tell students that annotation is a strategy the people use to comprehend/ understand the text better as they read. 5. Distribute the annotation guide and tell students to annotate the text as they read individually. 6. Tell students that they will read the text again as a group. Group members will take turns reading. They will read a paragraph of text, stop to discuss, and consider adding information to the ABC Inference Table Graphic Organizer. Model the process for students. Ask for a student volunteer. Choose a section of text, read it aloud, stop, make a statement, and add a statement to the ABC organizer. 7. Tell students to begin reading, discussing, and adding to their graphic organizers. **Assessment**: activities for formative and summative assessment during and after primary lesson activities. How does assessment account for the language demands embedded in core content for ELs? (1.5 hour) 1. Tell students that they will create a visual representation to teach the other members of the class about the information they read. The poster should convince classmates that climate change is real. Refer to evidence from the text to convince your classmates. Each group will present their posters to the class in a gallery walk. 2. Give groups time to create their posters. Walk around the room to check in with groups and help them to create their visual representations. 3. Tell students that each group member should practice explaining their group's poster. 4. When the groups are ready, hang the posters around the room. Tell students that each person in their group will share the responsibility of explaining their poster. The other group members will walk around to each poster to discuss, make comments, and ask questions. 5. Tell each group to decide the order of presenters. Each student will have an opportunity to talk at the poster and to walk around to learn about the others. 6. Tell students that the first presenter will stand by their poster. When their classmates come to the poster, they will explain their poster. The students who are learning about the poster will comment on the poster. 7. Distribute post- it notes to each student. Tell students that as they walk around to the posters, they should ask questions and make comments by writing them on the post- it notes and sticking them near the poster. Students can also comment on other students' post-it notes. 8. Be sure to tell students when to rotate speakers. Give about 5-10 minutes for each student presenter to talk at their poster. 9. Come back together as a whole class. Debrief about the activities.	**APPLY**
How are parents, families, and the community invited into or associated with the content, delivery, or extension of this lesson? Students could discuss weather and climate of their home countries with family members. They could discuss how they remember the weather and if it has changed over time. If the weather has changed, how do they know? (temperature, precipitation, drought, tropical cyclone activity)	**CULTIVATE**

Education Connections' Four Strands of Sheltered Instruction

Sheltered Instruction is an approach that makes academic content, as well as language development, more accessible for EL students. The Education Connections activities are based on ***Four Strands*** of Sheltered Instruction. They are: Define, Modify, Cultivate, Apply.

Define

- **Develop, define, refine, communicate, and assess *content objectives* for every lesson**
- **Develop, define, refine, communicate, and assess *language objectives* for every lesson**
- **Ensure objectives derive from, and are aligned with, English language proficiency (ELP), as well as content standards**

Modify

- **Differentiate instruction through lesson adaptation and instructional modifications**
- **Scaffold instruction in response to students' individualized language and content learning needs**
- **Identify the language demands and domains embedded in lessons and explicitly address language use and needs for both teaching and learning**

Cultivate

- Explicitly identify and acknowledge the **cultural competence, human capital, knowledge, experiences, and resources students bring to the classroom**
- Invite parental and/or familial involvement in the school and classroom and make connections that extend beyond the core curriculum
- **Support native language** maintenance, additive bilingualism, and biliteracy development

Apply

- **Directly promote language use through interaction with peers, teachers, as well as the core content**
- **Encourage and facilitate language use in both English, as well as students' home languages**
- **Develop and implement activities that require use of all four language domains**