UNIT B: LESSON 3

LEARNING TARGETS

INSTRUCTIONS FOR STUDENTS:
Listen as your teacher reviews the standards and objectives. Your teacher will call on an individual or pair to explain what they mean.

Learning Target:
I can **analyze** how a major section of “Water Is Life” **contributes** to the **development** of ideas.

Learning Target:
I can **analyze** the basic **structure** of a **complex** sentence.

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analyze – study something and explain it
contribute – add
development – growth; when something becomes more complete
structure – the way parts of something are joined together
complex – something that has many different parts

ACQUIRING AND USING VOCABULARY

INSTRUCTIONS FOR STUDENTS:
Use your glossary for the rest of the lesson to find meanings for words you don’t know. Words that are **bolded** in the text and word banks can be found in the glossary. The glossary is located in the Appendix at the end of the lesson.
THINKING LOG

INSTRUCTIONS FOR STUDENTS:
Your teacher will ask you a guiding question that you will think about as your teacher reads the text aloud to you. As your teacher reads the text aloud, listen and follow along in your text. After the text has been read aloud, work with a partner to reread the text and answer the supplementary questions. Use your glossary to help you. Your teacher will review the answers with the class. You will then discuss the guiding question(s) with your teacher and the class. Finally, you will complete a written response to the guiding question(s).

GUIDING QUESTION: How and why does Barbara Kingsolver describe places on Earth that have too little water for humans to live without struggling?

Water is Life
By Barbara Kingsolver

6

A world away from my damp hollow, the Bajo Piura Valley is a great bowl of the driest Holocene sands I've ever gotten in my shoes. Stretching from coastal, northwestern Peru into southern Ecuador, the 14,000-square-mile Piura Desert is home to many endemic forms of thorny life. Profiles of this eco-region describe it as dry to drier, and Bajo Piura on its southern edge is what anyone would call driest. Between January and March it might get close to an inch of rain, depending on the whims of El Niño, my driver explained as we bumped over the dry bed of the Rio Piura, "but in some years, nothing at all." For hours we passed through white-crusted fields ruined by years of irrigation and then into eye-burning valleys beyond the limits of endurance for anything but sparse stands of the deep-rooted Prosopis pallida, arguably nature's most arid-adapted tree. And remarkably, some scattered families of Homo sapiens.

WORD BANK:
Ecuador
humans
nothing at all
Peru
Piura Desert
rain

SUPPLEMENTARY QUESTIONS:
1. Where is Barbara Kingsolver as she begins this narrative?
Barbara is in the ______________. This desert stretches from northwestern ________ into southern ______________.

2. The Piura Desert is extremely dry. How do we know this?
We know the Piura Desert is extremely dry because it only receives an inch of ________ or ______________ each year.
3. Remarkably (surprisingly), Homo sapien families live in the Piura Desert. What are Homo sapiens?

Homo sapiens are ____________, like you and me.

They are economic refugees, looking for land that costs nothing. In Bajo Piura they find it, although living there has other costs, and fragile drylands pay their own price too, as people exacerbate desertification by cutting anything living for firewood. What brought me there, as a journalist, was an innovative reforestation project. Peruvian conservationists, partnered with the NGO Heifer International, were guiding the population into herding goats, which eat the protein-rich pods of the native mesquite and disperse its seeds over the desert. In the shade of a stick shelter, a young mother set her dented pot on a dung-fed fire and showed how she curdles goat’s milk into white cheese. But milking goats is hard to work into her schedule when she, and every other woman she knows, must walk about eight hours a day to collect water.

WORD BANK:

disperse    innovative    plants    trees

economic refugees    journalist    reforestation
firewood    land    tree

SUPPLEMENTARY QUESTIONS:

4. Who are the Homo sapien families that live in the Piura Desert?
They are ____________(extremely poor people). They look for ___________that doesn’t cost anything.

5. How do these families contribute to desertification (land becoming desert)?
The families cut any living ____________for ____________.

6. Why is Barbara in the Piura Desert?
Barbara is there as a ____________ (writer). She is learning about an ____________ (new and creative) ____________project that will bring ____________back to the region.

7. Families in the area raise goats. Why are goats good for reforestation?
Goats are good for reforestation because they ____________ (scatter) seeds from the mesquite ____________over the desert.

8. How far must a woman living in the Piura Desert walk each day to collect water?
A woman must walk about ____________hours each day to ____________water.
Their husbands were digging a well nearby. They worked with hand trowels, a plywood form for lining the shaft with concrete, inch by inch, and a sturdy hand-built crank for lowering a man to the bottom and sending up buckets of sand. A dozen hopeful men in stained straw hats stood back to let me inspect their work, which so far had yielded only a mountain of exhumed sand, dry as dust. I looked down that black hole, then turned and climbed the sand mound to hide my unprofessional tears. I could not fathom this kind of perseverance and wondered how long these beleaguered people would last before they’d had enough of their water woes and moved somewhere else.

**WORD BANK:**
- beleaguered
- exhumed
- perseverance
- crying
- journalist
- sand
- emotional
- Journalists
- well

**SUPPLEMENTARY QUESTIONS:**
9. **What were the men doing?**
The men were digging a __________.

10. **Did the men find water? How do you know?**
The men ___________ (did/did not) find water. The text says they ___________ (dug up) only ____________.

11. **Why does it mean that Barbara had to “hide [her] unprofessional tears.”**
Barbara was ____________.

12. **Why was Barbara crying?**
Barbara was crying because she could not understand the ____________ of these ____________ people.

13. **Why were Barbara’s tears unprofessional?**
Barbara was there as a _____________. ____________ are not supposed to make judgements about what they see. ____________ are not supposed to be ____________.

Five years later they are still bringing up dry sand, scratching out their fate as a microcosm of life on this planet. There is nowhere else. Forty percent of the
households in sub-Saharan Africa are more than a half hour from the nearest water, and that distance is growing. Australian farmers can't follow the rainfall patterns that have shifted south to fall on the sea. A salmon that runs into a dam when homing in on her natal stream cannot make other plans. Together we dig in, for all we're worth.

**WORD BANK:**
- Australia
- sub-Saharan Africa

**SUPPLEMENTARY QUESTIONS:**
14. In this paragraph, Barbara describes more examples of places on Earth where there is not enough water. List two of the examples.
Two places on Earth where there is not enough water are _______________ and ____________.

10
Since childhood I've heard it's possible to look up from the bottom of a well and see stars, even in daylight. Aristotle wrote about this, and so did Charles Dickens. On many a dark night the vision of that round slip of sky with stars has comforted me. Here's the only problem: It's not true. Western civilization was in no great hurry to give up this folklore; astronomers believed it for centuries, but a few of them eventually thought to test it and had their illusions dashed by simple observation.

**WORD BANK:**
- believe
- centuries
- illusion
- water

**SUPPLEMENTARY QUESTIONS:**
15. Since she was a child, Barbara heard the following: if you stand at the bottom of a well and look up, you will see stars even in the daytime. Is this true?
______________ (Yes, this is true/No, this is not true).

16. How long did astronomers (scientists who study the universe) believe this story?
Astronomers believed this story for ____________ (hundreds of years).

17. Why does Barbara tell us the story about the well?
She tells us the story to remind us that what we ____________ might not be true.
Humans today ____________ that there is enough ____________. But just like the well, this is an ____________.
RESPONSE TO GUIDING QUESTION(S):
How and why does Barbara Kingsolver describe places on Earth that have too little water for humans to live without struggle?
Response:__________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________.
**WATER NOTE-CATCHER**

**INSTRUCTIONS FOR STUDENTS:**
Work with a partner. Use your water note-catcher to write down key, or important, information from the text. You will write down main ideas and some details, or specific information, about each main idea. You can use information from your Thinking Log. Some information is already filled in for you.

**WORD BANK:**
attention, believe, changing, eight, evidence, microcosm, observe, option, region, water, weather, wells

**Summary from yesterday:**
Humans are _____________our world and the ___________. We must start paying _____________.

<table>
<thead>
<tr>
<th>Main idea:</th>
<th>Supporting details:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bajo Piura is an example of a ____________that doesn’t have sufficient _____________.</td>
<td>People who live there have to walk ________hours a day to collect ____________. People who live there are trying to dig ____________for water. But they have not found ____________yet.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main idea:</th>
<th>Supporting details:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bajo Piura is ____________of life on earth.</td>
<td>Everyone needs ____________. Like the people in Bajo Piura, if we cannot find ____________, there is nowhere else to go. We do not have another ____________, or choice.</td>
</tr>
<tr>
<td>Living in Bajo Piura is an example of living on earth.</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion:**
People do not always look for ____________, or proof, of what they ____________. But we can ____________the truth. In this passage we can ____________that we can run out of water.
## FUNCTIONAL ANALYSIS

### INSTRUCTIONS FOR STUDENTS:
Work with your class to analyze an important sentence(s) from the text.

- Every sentence has someone or something that does something. First you determine this who or what.
- Every sentence has something that they do or did. Figure that part out next. Now you have the most important parts of the sentence in place.
- Then you will figure out what they did the action to or for.
- Finally, you will write the descriptive details.
- Write your answers in the spaces below.
- When you are done, write the sentence again in your own words.

You may want to use definitions from the glossed text in the sections above.

### Functional Analysis:

*Five years later they are still bringing up dry sand, scratching out their fate as a microcosm of life on this planet.*

| WHO (Actor) | ________ |
| WHAT HAPPENED (Action): | are still ________ |
| WHAT: | dry ________ |
| DESCRIPTOR: | [they are] ________their fate |
| DESCRIPTOR (As What): | as a microcosm of life on this planet |
| DETAIL (When): | ________ later |

### What the sentence says: |

| My own words: |
| five years later | ____________________________ |
| they | the men in Bajo Piura |
| are still bringing up | ____________________________ |
| dry sand | ____________________________ |
| [They are] scratching out their fate | The men in Bajo Piura are ________ |
| as a microcosm of life on this planet | They are an example of ________ |

### Write the sentence in your own words and then explain it to your partner.

It is ________ later.

The men in Bajo Piura are still ____________________________________________

The men in Bajo Piura are ____________________________________________

They are an example of ____________________________________________
**EXIT TICKET**

**INSTRUCTIONS FOR STUDENTS:**
This graphic organizer will help you keep track of information about water for all of the readings. Each day you will write down new information from each reading.

- First, write new information you have learned about global water sustainability.
- Next, write what else you want to learn about water sustainability.

| Think about what we have learned so far. What are new things you learned about global water sustainability? | Some people live in very dry regions because ____________
| | They have to work very hard to ________________
| | ________________
| | ________________
| | ________________
| | ________________
| | ________________
| | ________________
| What else are you wondering about water sustainability? | ________________
| | ________________
| | ________________
| | ________________
| | ________________
| | ________________
| | ________________

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Center for English Language Learners
## Appendix: Glossary

<table>
<thead>
<tr>
<th>Word</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>adapt</td>
<td>become adjusted to new conditions</td>
<td>The desert was beyond the limits of endurance for anything but sparse stands of the deep-rooted Prosopis pallida, arguably nature’s most arid-<strong>adapted</strong> tree.</td>
</tr>
<tr>
<td>beleaguered</td>
<td>bothered with difficulties</td>
<td>I wondered how long these <strong>beleaguered</strong> people would last before they’d had enough of their water woes and moved somewhere else.</td>
</tr>
<tr>
<td>believe</td>
<td>think something is true</td>
<td>Western civilization was in no great hurry to give up this folklore; astronomers <strong>believed</strong> it for centuries, but a few of them eventually thought to test it and had their illusions dashed by simple observation.</td>
</tr>
<tr>
<td>collect</td>
<td>gather or get something</td>
<td>But milking goats is hard to work into her schedule when she, and every other woman she knows, must walk about eight hours a day to <strong>collect</strong> water.</td>
</tr>
<tr>
<td>desertification</td>
<td>when land becomes desert, usually because of drought, deforestation, or unsustainable agriculture</td>
<td>In Bajo Piura people exacerbate <strong>desertification</strong> by cutting anything living for firewood.</td>
</tr>
<tr>
<td>disperse</td>
<td>scatter or disperse</td>
<td>Peruvian conservationists were guiding the population into herding goats, which eat the protein-rich pods of the native mesquite and <strong>disperse</strong> its seeds over the desert.</td>
</tr>
<tr>
<td>economic</td>
<td>having to do with money</td>
<td>They are <strong>economic</strong> refugees, looking for land that costs nothing.</td>
</tr>
<tr>
<td>Word</td>
<td>Definition</td>
<td>Example</td>
</tr>
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<tr>
<td>El Niño</td>
<td>a weather pattern caused by a warm ocean current; it can cause terrible weather</td>
<td>Between January and March it might get close to an inch of rain, depending on the whims of El Niño.</td>
</tr>
<tr>
<td>endemic</td>
<td>common to a region; native</td>
<td>The Piura Desert is home to many endemic forms of thorny life.</td>
</tr>
<tr>
<td>eventually</td>
<td>in the end; finally</td>
<td>A few astronomers eventually thought to test it and had their illusions dashed by simple observation.</td>
</tr>
<tr>
<td>evidence</td>
<td>facts; proof</td>
<td>People do not always look for evidence, or proof</td>
</tr>
<tr>
<td>exacerbate</td>
<td>make a problem or bad situation worse</td>
<td>People exacerbate desertification by cutting anything living for firewood.</td>
</tr>
<tr>
<td>exhume</td>
<td>dig up</td>
<td>A dozen hopeful men let me inspect their work, which so far had yielded only a mountain of exhumed sand, dry as dust.</td>
</tr>
<tr>
<td>folklore</td>
<td>traditional beliefs, customs, and stories</td>
<td>Western civilization was in no great hurry to give up this folklore and astronomers believed it for centuries.</td>
</tr>
<tr>
<td>Holocene</td>
<td>recent geographical history</td>
<td>The Bajo Piura Valley is a great bowl of the driest Holocene sands I’ve ever gotten in my shoes.</td>
</tr>
<tr>
<td>home in</td>
<td>move towards a target or goal</td>
<td>A salmon that runs into a dam when homing in on her natal stream cannot make other plans.</td>
</tr>
<tr>
<td>illusion</td>
<td>a fantasy or belief in something that isn’t true</td>
<td>A few astronomers eventually thought to test it and had their illusions dashed by simple observation.</td>
</tr>
<tr>
<td>innovative</td>
<td>new and creative</td>
<td>What brought me there, as a journalist, was an innovative reforestation project.</td>
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<td>Example</td>
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</tr>
<tr>
<td>inspect</td>
<td>look at something carefully</td>
<td>A dozen hopeful men let me inspect their work, which so far had yielded only a mountain of exhumed sand, dry as dust.</td>
</tr>
<tr>
<td>limit</td>
<td>boundary</td>
<td>For hours we passed through white-crusted fields ruined by years of irrigation and then into eye-burning valleys beyond the limits of endurance.</td>
</tr>
<tr>
<td>microcosm</td>
<td>a small system or place that is very much like the larger system</td>
<td>Five years later they are still bringing up dry sand, scratching out their fate as a microcosm of life on this planet.</td>
</tr>
<tr>
<td>natal</td>
<td>native; place where you were born</td>
<td>A salmon that runs into a dam when homing in on her natal stream cannot make other plans.</td>
</tr>
<tr>
<td>observation</td>
<td>the ability to notice things, especially significant details</td>
<td>A few astronomers eventually thought to test it and had their illusions dashed by simple observation.</td>
</tr>
<tr>
<td>perseverance</td>
<td>continuing to do things, even if it is very difficult</td>
<td>I could not fathom this kind of perseverance and wondered how long these beleaguered people would last before they'd had enough of their water woes and moved somewhere else.</td>
</tr>
<tr>
<td>project</td>
<td>an activity that takes effort</td>
<td>What brought me there, as a journalist, was an innovative reforestation project.</td>
</tr>
<tr>
<td>reforestation</td>
<td>plant new trees in an area that used to have trees</td>
<td>What brought me there, as a journalist, was an innovative reforestation project.</td>
</tr>
<tr>
<td>region</td>
<td>an area of the world</td>
<td>Profiles of this eco-region describe it as dry to drier, and Bajo Piura on its southern edge is what anyone would call driest.</td>
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<td>Word</td>
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<td>Example</td>
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<td>-----------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>remarkable</td>
<td>surprising</td>
<td>Remarkably, some scattered families of people live in this desert.</td>
</tr>
<tr>
<td>(remarkably)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>unprofessional</td>
<td>not acting within the standards, or what is normal, for a profession or job</td>
<td>I looked down that black hole, then turned and climbed the sand mound to hide my unprofessional tears.</td>
</tr>
<tr>
<td>well</td>
<td>a deep hole dug in the ground to get water</td>
<td>Their husbands were digging a well nearby.</td>
</tr>
<tr>
<td>yield</td>
<td>give forth</td>
<td>A dozen hopeful men let me inspect their work, which so far had yielded only a mountain of exhumed sand, dry as dust.</td>
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</tbody>
</table>