



Chapter 1 Lesson 9

To Solve Old Problems, Study New Species

-- Alejandro Sánchez Alvarado



Content:

- Fill in the Blanks 6'
- Retell 7'
- Imitation 5'
- Language Points 4'

Teaching and Learning Goals:






- listen to the material for 2 times
- retell the speech
- imitate the intonation (语调)
- get the main idea



Scan the questions first. Then listen to the audio and fill in the blanks below.



1'24''

1. ...they _____ something new that made it possible for us to be able to be here today. 
2. I think that we need to renew our spirit of _____. 
3. We actually need to bring all of our intelligence to becoming _____ again. 
4. We scientists need to teach our students to long for the _____ immensity of the sea that is our ignorance. 
5. And I think I'm a little wrong when I say that life is a _____... 

Tutor: Please let the student scan the questions and do the exercises. Listen to it again if the student cannot get the answer for the first time. The keys are on the next page.



Check your answers.

1. **invent**
2. **exploration**
3. **stupid**
4. **endless**
5. **mystery**

Tutor: Please check the answers with the student.



Fill in the Blanks
6 mins

Retell
7 mins

Imitation
5 mins

Language Points
4 mins

After class

Listen to the audio again, make notes,
and retell the speech in your own words.

Part 1

What should we learn
from these animals?

Part 2

How can we renew our
spirit of exploration?

Part 3

What should scientists
teach students?

Hints:

break the rules
invent something new
how we study

**bring nature into lab/
bring science into nature**
new forms of life
become stupid again

long for/ignorance
history of life
**wrong/mystery/open
secret**



Tutor: Please let the student retell twice (retell – feedback – retell), and correct his/her mistakes.



Listen and read each sentence, imitating the intonation.

1. These animals did not get the memo. They break the rules.
'These animals did 'no- ge the memo. They 'brea the rules.
2. I think that we need to renew our spirit of exploration.
I 'thin tha we need do re'new our 'spirid-ov exploration.
3. And I think I'm a little wrong when I say that life is a mystery...
And I 'think I'm a li-lle 'wrong whe-ni say tha life's a mysery...

Tutor: Please help the student to imitate the speech with appropriate intonation.



Learn the words and expressions.

- ...we need to bring our science into the **majestic** laboratory that is nature, and there, **interrogate** every new form of life we find...
- We actually need to bring all of our intelligence to becoming stupid again — clueless in front of the **immensity** of the unknown.

majestic: beautiful, powerful

e.g. The majestic Montana scenery will leave you breathless.

interrogate: question thoroughly for a long time to get information

e.g. I interrogated everyone even slightly involved.

immensity: the extremely large size of something

e.g. The immensity of the task is astonishing.

Tutor: Please teach the words and phrases shortly. Let the student make sentences. Keep it in 4 mins.



Full Text

I love to study these animals that break the rules, because every time they break a rule, they invent something new that made it possible for us to be able to be here today. These animals did not get the memo. They break the rules. So if we're going to study animals that break the rules, shouldn't how we study them also break the rules?

I think that we need to renew our spirit of exploration. Rather than bring nature into our laboratories and interrogate it there, we need to bring our science into the majestic laboratory that is nature, and there, interrogate every new form of life we find, and any new biological attribute that we may find. We actually need to bring all of our intelligence to becoming stupid again — clueless in front of the immensity of the unknown. Because after all, science is not really about knowledge. Science is about ignorance. That's what we do.

We scientists need to teach our students to long for the endless immensity of the sea that is our ignorance. We, like all other species on this planet, are inextricably woven into the history of life on this planet. And I think I'm a little wrong when I say that life is a mystery, because I think that life is actually an open secret that has been beckoning our species for millennia to understand it.

Click the squares to
read and listen to
more materials.

Script
of the whole
speech

Audio track
of the whole
speech



To Solve Old Problems, Study New Species

Bye!

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