Chapter 1

Scales of Measurement

PRE-LISTENING ACTIVITIES

// Warm Up

Today, we use scales to measure the strength of tropical storms, earthquakes, and even to determine whether a person is at a healthy body weight. What are some other scales that you know of? Which scales do you use the most? Can you think of any unusual scales that you’ve heard about?

// Vocabulary List

quantify                   to create an objective measurement of something
concrete (adj.)            specific; definite; clear
applied to survival        made appropriate or relevant to the state of continuing to live or exist
assess                     evaluate
newborn (n.)               a baby shortly after birth
assessment                 evaluation
pulse                      heart rate
reflexes                   one’s ability to react to a stimulus without thought
muscle tone                the firmness of muscles at rest
respiration                the process of breathing
overlooked                 failed to notice
acceptance                 the act or process of being considered suitable or tolerable
ethnicity                  a person’s national or cultural background
overcome                   succeed in dealing with a problem
racial discrimination      unjust or prejudicial treatment based on a person’s race
Comprehension Check: Now read aloud only the definition of the word and see if your partner can identify the correct word.

/ Vocabulary Practice

Using the words provided, complete the sentences below.

quantify applied to assess overlooked overcome

1) The detective nearly _____________ an important clue.
2) The law should be _____________ all people equally.
3) After many years, he was able to _____________ his fear of snakes.
4) The doctor tried to _____________ the condition of the patient.
5) The advertising company attempted to _____________ the opinions of its customers.

concrete survival newborn assessment pulse reflexes

6) A _____________ cries when it needs something.
7) When you exercise, your _____________ increases due to increased blood flow.
8) A cat is said to have excellent _____________.
9) It is often good to create a list of _____________ goals.
10) The teacher used the test as an _____________ of her students’ progress.
11) When a disaster occurs, people become focused on their family’s _____________.

muscle tone respiration acceptance ethnicity racial discrimination

12) When our bodies need oxygen, our rate of _____________ increases.
13) _____________ of others is a true measure of a country’s degree of internationalization.
14) As a result of strength training, athletes usually possess above-average _____________.
15) It is considered unusual these days to see examples of _____________.
16) One’s _____________ is determined by one’s ancestors.
Listening to the Lecture

*Listening 1:* Listen to the lecture, but don’t worry about taking notes. Just listen for key words and concepts while trying to follow the basic ideas that are being discussed.

*Listening 2:* Now listen to a simplified version of the lecture. For practice, your teacher might ask you to repeat after the speaker.

*Listening 3:* Now listen to the original lecture while taking notes on as many of the key points as you can.
POST-LISTENING

Comprehension Questions

a. Multiple choice questions

*Listen to the questions and provide your answers.*

1) a) pulse  
   b) respiration  
   c) taste  
   d) color

2) a) Doctors must now pay close attention when evaluating newborns.  
   b) It helps to speed up the entire birth procedure.  
   c) It makes babies healthier.  
   d) It uses fewer categories than the system it replaced.

3) a) 0-2  
   b) 1-3  
   c) 5-6  
   d) 5-7

b. Short answer questions

*Listen to the questions and provide your answers.*

1) ____________________________________________

2) ____________________________________________

3) ____________________________________________
Speaking Expansion Activities

Discussion topics

*In pairs or small groups discuss the following topics:*

1) Had you ever heard of either of these scales? What do you think of them?
2) Why do you think that people create scales? How are scales helpful?
3) Can you think of any other scales that you see or use in your daily life? Where and when do you see or use them?
4) Do you think racism is a big problem in your country? In what ways or in what situations can racism be seen? What problems can racism cause in a country?
5) Now (with your group) try to create your own original scale. It does not need to be something serious — it could be a scale that describes something completely humorous.

Listening Expansion Activity

a. Apgar Score

*Listen to the directions and complete the following chart which describes the different Apgar Score categories.*

<table>
<thead>
<tr>
<th></th>
<th>Score of 0</th>
<th>Score of 1</th>
<th>Score of 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color</strong></td>
<td></td>
<td>Blue arms and legs but a pink body</td>
<td></td>
</tr>
<tr>
<td><strong>Pulse</strong></td>
<td></td>
<td></td>
<td>100 or more beats per minute</td>
</tr>
<tr>
<td><strong>Reflexes</strong></td>
<td></td>
<td>No reaction when stimulated</td>
<td>Pulls back or cries loudly when stimulated</td>
</tr>
<tr>
<td><strong>Muscle tone</strong></td>
<td></td>
<td></td>
<td>Active flexing of arms and legs</td>
</tr>
<tr>
<td><strong>Respiration</strong></td>
<td></td>
<td>Slow, irregular, or weak breathing</td>
<td></td>
</tr>
</tbody>
</table>
b. Bogardus Social Distance Scale

*Listen to the directions and complete the following chart which describes the different scores in the Bogardus Social Distance Scale.*

<table>
<thead>
<tr>
<th>Score</th>
<th>Level of acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Would be willing to marry</td>
</tr>
<tr>
<td>2</td>
<td>As close friends</td>
</tr>
<tr>
<td>3</td>
<td>As</td>
</tr>
<tr>
<td>4</td>
<td>As</td>
</tr>
<tr>
<td>5</td>
<td>As fellow citizens in your country</td>
</tr>
<tr>
<td>6</td>
<td>As</td>
</tr>
<tr>
<td>7</td>
<td>Would</td>
</tr>
</tbody>
</table>

\[Extra Listening\]

*One more unusual scale*: Did you know that there are scales to measure pain? Well, here’s one scale that is used to measure a very specific type of pain —— the pain of an insect sting.