Activity 3C: Lifespan vs. Healthspan

Objectives
✔ Compare and contrast lifespan and healthspan.
✔ Identify patterns and trends in data tables and graphs.
✔ Discuss healthy habits that can impact and maximize healthspan.
✔ Design a poster to promote factors that impact healthspan.

Overview:
In this activity, students will participate in class discussions about aging, identifying patterns in data, and distinguishing between lifespan and healthspan.

In “What Do YOU Think” students will share their own ideas about what will happen to them as they age. Teachers may also wish to complete the questions.

The “Background and Discussion” section, students will look at US Census data and discuss changes in life expectancy trends during the past century.

Students will then read about the relationship between life expectancy, lifespan, and healthspan.

What Do YOU Think??
Read the following questions. Spend a few moments quietly reflecting on the questions. Write a short answer (a sentence or two or a few key words) so you will be prepared to participate in a class discussion.

✔ What will you be like when you are older?

✔ What will you look like?

✔ What do you imagine you will be able to do when you are older?

✔ How long will think you could live?

✔ How healthy do you think you will be?
Background & Discussion:
The National Center for Health Statistics, NCHS, monitors the health of the United States. One of the health trends the NCHS keeps track of is the average life expectancy of men and women. Look at the table below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Life Expectancy in Years (Males)</th>
<th>Life Expectancy in Years (Females)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>46.3</td>
<td>48.3</td>
</tr>
<tr>
<td>1925</td>
<td>57.6</td>
<td>60.6</td>
</tr>
<tr>
<td>1950</td>
<td>65.6</td>
<td>71.1</td>
</tr>
<tr>
<td>1975</td>
<td>68.8</td>
<td>76.6</td>
</tr>
<tr>
<td>2000</td>
<td>74.1</td>
<td>79.3</td>
</tr>
<tr>
<td>2010</td>
<td>76.2</td>
<td>81.1</td>
</tr>
</tbody>
</table>

http://www.cdc.gov/nchs/fastats/lifexpec.htm

✔ What patterns do you notice?

✔ How has life expectancy changed over the past century?

✔ Why do you think life expectancy has changed?

Life expectancy is an average estimation of how long people may live. However, when referring to the actual amount of time a person lives, it is called the lifespan. Lifespan is an actual number. It is a quantity that can be measured. In today’s health centered environment, another term, healthspan, is becoming more frequently talked about. Healthspan is the number of years lived in good health. In other words, healthspan describes the quality of life.

There is a difference between lifespan and healthspan. The average lifespan for people in the United States has increased over the last century. Some people may live a long life, but have many health issues. Others may live just as long but with fewer health issues. The goal is to maintain a productive, healthy, active life throughout your lifespan. The better your healthspan, the more likely you will have a long lifespan. This is can be referred to as “maximizing” your health span.
Class Discussion
✔ What does it mean to live longer?
✔ What does it mean to live healthier?
✔ Are they related? If so, how?

Directions: Thinking Critically
Individually or as a class, students are to review the diagram. Important terms, such as dependent and independent variables, quality, and quantity should be reviewed. Students should spend time comparing “Mr. Skogg” to “Mr. Humperdink”. What is the graph showing about each man? Students are to refer to the graph when answering the questions that follow.

The diagram compares Lifespan to Healthspan

Questions
1. Describe Mr. Humperdink’s
   Lifespan: __________________________________________
   Healthspan: _________________________________________

   Mr. Skogg
   Lifespan: The number of years you live. (Quantity)
   Healthspan: The number of years you live in good health. (Quality)
2. Describe Mr. Skogg’s

Lifespan: ________________________________

______________________________________

Healthspan: ____________________________

______________________________________

3. What factors do you think contribute to your healthspan?

______________________________________

______________________________________

______________________________________

4. Would you prefer a longer lifespan or a longer healthspan? Explain your answer.

______________________________________

______________________________________

______________________________________

______________________________________

______________________________________

______________________________________
Directions: Comparing Lifestyle and Healthspan

When completing the table as instructed, inform students they should keep in mind their own hobbies, nutrition, physical activity, and environment.

1. List 3 examples of the hobbies, nutrition, activities, and environmental factors you think contributed to Mr. Humperdink’s and Mr. Skogg’s healthspans.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mr. Humperdink (Short healthspan)</th>
<th>Mr. Skogg (Long healthspan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOBBIES (watching TV, camping…)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUTRITION (fruit, fast food…)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYSICAL ACTIVITY (walking, running, weight training, sports…)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVIRONMENT (where you live, culture, hygiene, smoking, …)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Put a check ✓ next to the examples listed above that best match your current life choices.
4. Do you think your current life choices are going to contribute to a short healthspan or a long healthspan? Explain why.

________________________________________________________________________

________________________________________________________________________

**Objective:** Design a poster to promote factors that may increase healthspan.

**Directions: Poster Activity**

Students are to consider what they have learned about healthspan and create a poster with a message to promote ways to “maximize their healthspan”. Provide students with the rubric before they create the poster.

Encourage students to be creative as well as informative. Consider how the posters could be displayed when deciding how big the posters should be and what materials the students may use to create their masterpieces. Posters can be displayed in various places around the school: nurses office, cafeteria, hallways, and classrooms.

*In Groups of 3-4,* students will create a poster with a message to promote ways to “maximize their healthspan”.

**RUBRIC**

<table>
<thead>
<tr>
<th></th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
<th>4 points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td>The title promotes maximizing the healthspan in only 1 way.</td>
<td>The title promotes maximizing the healthspan in only 2 ways.</td>
<td>The title promotes maximizing the healthspan in 3 ways.</td>
<td>The title promotes maximizing the healthspan in 4 ways.</td>
</tr>
<tr>
<td><strong>Written Description</strong></td>
<td>The student describes 1 way that students can maximize their healthspan.</td>
<td>The student describes 2 ways that students can maximize their healthspan.</td>
<td>The student describes 3 ways that students can maximize their healthspan.</td>
<td>The student describes 4 or more ways that students can maximize their healthspan.</td>
</tr>
<tr>
<td><strong>Picture(s)</strong></td>
<td>The picture(s) do not relate to the health message.</td>
<td>The picture(s) are somewhat related to the health message.</td>
<td>The picture(s) illustrate the health message and make the poster more appealing.</td>
<td>The picture(s) show a NEW WAY of thinking about the health message and add to the communication about the health issue.</td>
</tr>
<tr>
<td><strong>Neatness</strong></td>
<td>You cannot read/see most of the words/pictures in the poster. The poster only takes up a small part of the paper.</td>
<td>You cannot read/see some of the words/pictures in the poster but not all of them.</td>
<td>You can read/see all of the words/pictures in the poster.</td>
<td>You can read/see all of the words/pictures in the poster AND extra effort was put into the final product.</td>
</tr>
</tbody>
</table>

*The whole paper is used for the poster.*