### Inquiry Question

**How do environmental conditions affect the respiratory system?**

| Name: ________________________________ | Date: ____________ |

Do you live in an area with lots of air pollution? Are there lots of allergens in your environment? Do you live at high altitude? Are you an athlete or a musician? These factors and others can influence your respiratory health.

In this project you will research two topics involving the respiratory system and present your findings in a format of your choice.
Instructions

- Read through the Unit 11 Lesson, *Respiratory System*.
- Pick any two of the topics below to research.
- Present the information in a ~500-750 word poster, pamphlet, written report, PowerPoint presentation or Presi presentation. Other formats are allowed, but please check with your teacher.
- You must use a minimum of 4 references.
- You must cite your sources of information. Check out these websites for information on citing sources:
  - [http://www.wikihow.com/Sample/MLA-Citation-List](http://www.wikihow.com/Sample/MLA-Citation-List)

This Project will be graded according to the Marking Guide at the end of this document.

Project Submission:
Submit your project file to the project drop box

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**Research Topics**

Choose two (2) of the following topics to research:

1. What are the effects of age, gender or body mass index on lung capacity? Do musicians or athletes have a different lung capacity than nonmusicians or nonathletes? What is the lung capacity of a nonsmoker versus a smoker?
2. Research if a person can hold his breath longer in cold or warm water, in water or on land, in cold or warm air.
3. What effects do aerosols and other air pollutants have on asthma sufferers?
4. Determine the dangers of secondhand smoke to children and pets living with a smoker.
5. What devices available in stores really help a person who snores?
6. Determine if the amount and type of exercise done in a test subject affects her production of carbon dioxide.
7. Demonstrate the amount of asthma- and allergy-producing dust and mites per square inch in a sample household.
8. What effects do aerosols have on the ozone, and how does that reflect on the human respiratory system?
9. Can people with asthma, who have their asthma under control, function and exercise to full lung capacity as well as people without asthma?
10. What effects do nicotine and tar have on lung cells? Can this damage be reversed? Is the damage the same or less severe if the nicotine is from secondhand smoke?
11. What are the effects of living at high altitudes.
12. Although air purifiers are advertised to improve breathing, some air purifiers emit harmful ozone.
13. The Pulmonary Effects of Ozone-generating Air Purifiers and Other Household Devices
# Marking Guide

## Marking Guide

<table>
<thead>
<tr>
<th>Marking Guide</th>
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<tbody>
<tr>
<td><strong>Two Topics of Choice Completed as follows:</strong></td>
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<tr>
<td>Each topic is well researched with accurate information</td>
<td>/8</td>
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<tr>
<td>Clear and concise writing / presentation</td>
<td>/2</td>
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<tr>
<td>Supporting points are presented in a logical progression</td>
<td>/4</td>
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<tr>
<td>Good use of images</td>
<td>/2</td>
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<tr>
<td>Presentation looks professional</td>
<td>/4</td>
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<tr>
<td>Sources are cited properly with a minimum of 2 sources per topic</td>
<td>/5</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>/25</strong></td>
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