

Careers in Action

Summer Teacher Internship/Lesson Plan Writing Project

This lesson has been endorsed by Mary Thomas, Education Liaison Specialist, Mission Regional Medical Center

Amy Juan	Science - Resource	27-Jun-07
Teacher's Name	Course/Subject	Date(s)/Time

Content	Objective(s) The student is expected to identify feedback mechanisms for body temperature and O ₂ levels by measuring heart rate and observing perspiration after running in circles outside the building. The Teacher will then check the student's calculations.	Career Concentration(s) <input type="checkbox"/> Agricultural Science <input type="checkbox"/> Human Dev., Management & Services <input type="checkbox"/> Art, Communications & Media <input checked="" type="checkbox"/> Industrial and Engineering <input type="checkbox"/> Business & Marketing <input type="checkbox"/> Personal and Protective Services <input checked="" type="checkbox"/> Health Science Technology
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TEKS Reference: 8.6B

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Process	Focus/Anticipatory Set Play the metronome and compare it to a human heart.	Bloom's Taxonomy in Lesson <input checked="" type="checkbox"/> Knowledge <input type="checkbox"/> Comprehension <input checked="" type="checkbox"/> Application <input checked="" type="checkbox"/> Analysis <input type="checkbox"/> Synthesis <input checked="" type="checkbox"/> Evaluation	Multiple Intelligences <input checked="" type="checkbox"/> Linguistic <input checked="" type="checkbox"/> Logical/Math <input type="checkbox"/> Musical <input checked="" type="checkbox"/> Spatial <input checked="" type="checkbox"/> Bodily-Kinesthetic <input checked="" type="checkbox"/> Intrapersonal <input checked="" type="checkbox"/> Interpersonal <input type="checkbox"/> Naturalist	SCANS																																																														
	Relevance/Connection to Workplace Measuring the heart beat rate in a hospital is one of the essential routines for assessing the health of patients.			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> </tr> <tr> <td style="text-align: center;">Foundation</td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input type="checkbox"/></td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>3 <input checked="" type="checkbox"/></td> <td>3 <input type="checkbox"/></td> <td>3 <input type="checkbox"/></td> <td>3 <input checked="" type="checkbox"/></td> <td>3 <input type="checkbox"/></td> <td>3 <input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">Competencies</td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input type="checkbox"/></td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input checked="" type="checkbox"/></td> <td>1 <input type="checkbox"/></td> <td>1 <input type="checkbox"/></td> </tr> <tr> <td></td> <td>2 <input checked="" type="checkbox"/></td> <td>2 <input checked="" type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> <td>2 <input type="checkbox"/></td> </tr> <tr> <td></td> <td>3 <input checked="" type="checkbox"/></td> <td>3 <input type="checkbox"/></td> <td>3 <input checked="" type="checkbox"/></td> <td>3 <input type="checkbox"/></td> <td>3 <input type="checkbox"/></td> <td>3 <input type="checkbox"/></td> </tr> <tr> <td></td> <td>4 <input type="checkbox"/></td> <td>4 <input type="checkbox"/></td> <td>4 <input type="checkbox"/></td> <td>4 <input type="checkbox"/></td> <td>4 <input type="checkbox"/></td> <td>4 <input type="checkbox"/></td> </tr> <tr> <td></td> <td>5 <input type="checkbox"/></td> <td>5 <input checked="" type="checkbox"/></td> <td>5 <input type="checkbox"/></td> <td>5 <input type="checkbox"/></td> <td>5 <input type="checkbox"/></td> <td>5 <input type="checkbox"/></td> </tr> </table>		A	B	C	D	E	F	Foundation	1 <input checked="" type="checkbox"/>	1 <input checked="" type="checkbox"/>	1 <input type="checkbox"/>	1 <input checked="" type="checkbox"/>	1 <input checked="" type="checkbox"/>	1 <input checked="" type="checkbox"/>		2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input checked="" type="checkbox"/>		3 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	Competencies	1 <input checked="" type="checkbox"/>	1 <input type="checkbox"/>	1 <input checked="" type="checkbox"/>	1 <input checked="" type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>		2 <input checked="" type="checkbox"/>	2 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>	2 <input type="checkbox"/>		3 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	3 <input checked="" type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>	3 <input type="checkbox"/>		4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>	4 <input type="checkbox"/>		5 <input type="checkbox"/>	5 <input checked="" type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>	5 <input type="checkbox"/>
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Instructional Methodology (Activities)

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| <input checked="" type="checkbox"/> Lecture | <input checked="" type="checkbox"/> Class/Group Discussion |
| <input type="checkbox"/> Teacher Modeling | <input checked="" type="checkbox"/> Question/Answer |
| <input type="checkbox"/> Media Presentation | <input checked="" type="checkbox"/> Guided Practice |
| <input type="checkbox"/> Small Group | <input type="checkbox"/> Independent Practice |

Instructional Material(s)

General Science Textbook, Multiplication Tables

Detail(s) of Instructional Methodology (Activities)

Take students outside. Get some volunteers. Measure their heart rate by counting the number of beats in a 30 second period, observe the perspiration level and record. Have the volunteers run for one or two minutes. Measure their heart rate again (same method), observe the perspiration level and record. Return to classroom, have students calculate heart rate at rest and after workout for each volunteer and record their calculations on the board. Guide discussions about the results.

Materials/Resources

Paper and pencil. Clip board, stop watch, metronome.

Use of Technology

N/A

Accommodations

Calculator, hats, popsicles

Product	Assessment <input checked="" type="checkbox"/> Teacher Evaluation <input type="checkbox"/> Peer/Self Evaluation <input type="checkbox"/> Employer Evaluation <input type="checkbox"/> Written/Oral Presentation <input checked="" type="checkbox"/> Test/Quiz <input type="checkbox"/> Others; _____	Bloom's Taxonomy in Assessment <input type="checkbox"/> Knowledge <input checked="" type="checkbox"/> Analysis <input type="checkbox"/> Comprehension <input checked="" type="checkbox"/> Synthesis <input checked="" type="checkbox"/> Application <input checked="" type="checkbox"/> Evaluation
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Reteach Activity/Homework

Multiplication facts review

Lesson Closure

Every student calculates their own heart rate and compares it to other students' heart rates. Students debate the influence of various factors to heart rates.