Vital Signs

Pulse

A. General Guidelines

1. The baseline pulse rate of a student with certain diseases, especially respiratory and cardiac, and those receiving medication that alter the pulse rate should be recorded so that a change in condition is easily recognized.
2. The pulse is the regular expansion and contraction of an artery produced by each beat of the heart. The pulse is assessed for rate, rhythm and character (includes weak, thread or bounding). Abnormalities in pulse are often signs of disease.
3. The normal resting heart rate varies; for an adult from 50 to 100 beats per minute; 70 to 110 for children 2-10 years of age; 60-90 for a 12 year old.
4. The pulse rate may be counted at the most appropriate point, usually at the wrist.

B. Pulse Rate

1. The purpose of taking the pulse rate is to assess the overall health of a student, especially the cardiovascular system.

C. Equipment –

1. Watch with a second hand

VITAL SIGNS PROCEDURE

Essential Steps	Key points and precautions
1. Wash your hands	Reduces the spread of microorganisms
2. Explain the procedure to the students	Encourages cooperation, reduces anxiety.
3. Position the student a) Lying on his back with his arms across his chest with the palm of the hand down. b) Sitting with his arm bent at the elbow, resting on the chair or your arm, palm down.	This position makes it easy to feel the pulse in the radial artery at the wrist.
4. Place one to three fingers over the pulse point along groove on the thumb side of the under part of the wrist.	The fingertips are more sensitive. Do not use the thumb, as you may feel your own pulse.
5. After locating the pulse, begin counting when the second hand of your watch is on a number and count for one minute.	If you count for less than one minute, you may miss irregularities.
6. Note the rhythm and character (or quality) of the pulse as well as the rate.	
7. Praise the student for his participation cooperation.	
8. Return the student to comfortable position.	
9. Record the rhythm and character on the daily log.	Report any unusual abnormalities or occurrences, such as irregularity, weak, etc

Respirations

A. General Guidelines

1. A student with chronic respiratory or cardiac disorders should be observed to establish a baseline for the rate and depth of rhythm of respirations.
2. To get an accurate rate, respirations are usually counted unobtrusively before or after counting the pulse rate.

B. Measuring Respirations Purpose

- The purpose of measuring respirations is to monitor the conditions and function of the respiratory system through the observation of the movement of the chest and abdominal muscle and breath sounds for rate, depth and regularity.

C. Equipment

- Time device with second hand

PROCEDURE FOR COUNTING RESPIRATIONS

Essential Steps	Key Points and Precautions
1. Preparation a. Position student in a comfortable position.	The arm may be placed so that the pulse can be assessed while observing and counting respirations.
1. Method a) Observe one inspiration and one expiration.	This is one cycle or one breath.
b) Begin counting when the second hand of the watch is on a number. Count for one minute.	Young children often breathe irregularly.
c) Observe the rise and fall of the chest.	
d) Record the rate per minute and any unusual observations.	The normal range of respiration for an adult is 14-20 times per minute. Young students breathe more quickly. Signs of respiratory distress may include deep or shallow; irregular respirations, retractions (sinking in) of the tissues of the chest, nasal flaring, wheezing, grunting, change of color (especially around the nose and mouth).

Temperature

A. General Guidelines

1. Body temperature is the difference between the amount of heat the body produces and the amount of heat it loses. Normally the body temperature remains stable around 98 degrees Fahrenheit (37 degrees Celsius); lower in early morning and higher in later evening.
2. Body temperature varies depending upon the route it is taken: Oral – normal range 97.7° to 99.5° F (36.5° to 37.5° C) Rectal – normal range 98.7° to 100° F (37.1° to 38.1° C) Axilla – normal range 96.7° to 98.5° F (35.9° to 36.9° C)
3. In the school setting the temperature may be taken by using an electronic or other type of thermometer. The use of glass thermometers is discouraged. If a glass thermometer is broken, the mercury must be disposed of in accordance with school system guidelines. Record the route and the temperature.
4. Changes in temperature may be due to disease, infection, extended exposure to heat or cold, exercise, age, crying, nutritional intake, and other causes.
5. A change in appearance, activity level, emotional state, feeding pattern, or other indicators may be a sign of an increase or decrease in body temperature.

B. *Purpose*

- To determine if the student has an abnormal temperature.

D. *Equipment*

- Electronic Thermometer with disposal plastic shield or other device, for measuring body temperature

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PROCEDURE FOR TAKING A TEMPERATURE

Essential Steps	Key Points and Precautions
1. Preparation	
a. Wash your hands.	Prevents spread of microorganisms.
b. Inspect the thermometer for proper functioning.	Prevents inaccurate measurement.
c. Explain the procedure to the student.	Encourages cooperation.
d. Position the student appropriately for comfort and safety according to the method used.	
2. Method	
a. Follow the manufacturer's instructions for the device used.	
b. Praise the student for cooperation.	
c. Remove the thermometer at the appropriate time.	
d. Return the student to the appropriate position.	
e. Wash your hands.	Decreases spread of microorganisms.
f. Record the temperature on the student's chart.	Report abnormal temperatures to appropriate personnel and to parents.

Vital Signs Skills Checklist [ ] Initial [ ] Review

(Pulse Rate, Respiratory Rate, and Temperature)

Person Trained: _____ Position: _____

	Demo Date	Return Demonstration					
		Date	Date	Date	Date	Date	Date
1. States name and purpose for procedure							
2. Identifies supplies:							
a) Time device with second hand.							
b) Thermometer							
3. Steps – Heart Rate							
a) Finds a pulse point on wrist or_____							
b) Counts for one minute.							
c) Logs information.							
4. Steps – Breathing Rate (Respiratory Rate)							
a) Observe rise and fall of student's chest.							
b) Counts movements for 60 seconds.							
c) Logs information.							
5. Steps – Temperature							
a) Uses thermometer per instructions							
b) Removes thermometer as instructed.							
c) Logs information							

Comments:

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Overall Rating: ____**PASS** *Successful completion of a minimum of three demonstrations with 100% accuracy*

____ **FAIL** *Practical must be repeated. Trainer must complete Summary of Skills Form and attach to this checklist.*

_____ _____ _____ _____

Date: School Nurse Signature Date Employee Signature