Patient Flow - Elementary School
Student Worksheet

Name: ____________________________       Date: ______________________

Part I: Introduction

1. What is a system design? ____________________________________________________________
   ________________________________________________________________________________
   ________________________________________________________________________________

2. What is flow in relation to a system design? __________________________________________
   ________________________________________________________________________________
   ________________________________________________________________________________

3. Give two examples of systems where you have witnessed a lack of flow. ________________
   ________________________________________________________________________________
   ________________________________________________________________________________

4. What are some disadvantages of having lack of flow in a system design? ______________
   ________________________________________________________________________________
   ________________________________________________________________________________

Part II: Hands-On Activity: Patient Flow Simulation

(See your teacher for instructions and materials.)
Part III: Data Analysis
(Complete Part III with the other students assigned to your Exam Room.)
Answer the following questions using the histograms created by the engineer at your station.

First Run Histogram
1. What is the minimum number of patients at any given time interval? _____
   How many intervals have that number of patients? _________________
2. Are there any intervals with 0 patients? ______ Why would that be a disadvantage?_____
3. What is the maximum number of patients at any given time interval? _____________
   How many intervals have that number of patients? _________________
4. Are there any intervals with 3 or more patients? ______ Why would that be a disadvantage?__

Second Run Histogram
1. What changes were made to the system design for the second run? _________________________
2. What is the minimum number of patients at any given time interval? _____________
   How many intervals have that number of patients? _________________
3. What is the maximum number of patients at any given time interval? _____________
   How many intervals have that number of patients? _________________
4. Are these results better than the results from the First Run? _________ Explain. __________
5. What other changes can be made to the system design for even better patient flow?_________

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