## Rubric for a Behavior-over-time Graph

|  | Change Variable (y-axis) | Time Boundary (x-axis) | Change Representation | Explanation of a Graph |
| :---: | :---: | :---: | :---: | :---: |
| 4 | - Identifies one or more significant, specific quantitative (e.g. population) or qualitative (e.g. happiness) components that change over time in the system <br> - Identifies and descriptively labels an appropriate comparative change scale (e.g. glad, happy, ecstatic) | - Identifies start and end time boundaries within which the variable changes and includes a boundary for projected change based on current trends <br> - Identifies contentappropriate time units (e.g. hours, years, chapters) <br> - Represents time units in a learner-appropriate manner (e.g. pictures) | Represents continuous pattern of change/trend of a variable over time using a line on a graph in one or more of the following ways: <br> - Visibly distinguishes on the line graph the projected pattern of change/trend from that which has occurred <br> - Uses referenced, separate lines on a graph to represent related trends | Explains a variable's continuous pattern of change/trend over a specified period of time and does one or more of the following: <br> - Explains a projected behavior based on current trends <br> - Explains the differences between changes in qualitative (e.g. happiness) vs. quantitative (e.g. population) variables that change over time <br> - Explains the difference between changes in accumulations over time and the rates at which they change |
| 3 | - Identifies a significant, specific quantitative (e.g. population) or qualitative (e.g. happiness) component that changes over time in the system <br> - Identifies an appropriate comparative change scale (e.g. low, medium, high) | - Identifies the time boundary within which the variable's change starts and ends <br> - Identifies contentappropriate time units (e.g. hours, years, chapters, etc.) | Represents continuous pattern of change/trend of a variable over time using a line on a graph | Explains a variable's continuous pattern of change/trend over a specified period of time |
| 2 | - Identifies a general rather than specific component that changes over time in the system (e.g. feelings rather than happiness) <br> - Identifies an unclear comparative change scale that also may have labels representing multiple variables (e.g. sad, angry, happy) | - Identifies a boundary that is too short or too long <br> - Identifies time units that do not match the time during which the variable has changed | Represents continuous pattern of change/trend of a variable over time as event-based using dots connected by a line on a graph | Explains a variable's pattern of change/trend as a series of individual events that are connected in time |
| 1 | - Identifies a component that is an individual event rather than one that changes over time (e.g. changes clothes) <br> - Identifies a comparative change scale that does not encompass change of the component | - Does not include a time boundary <br> - Does not include any units on the graph | Represents continuous pattern of change of a variable over time as event-based using unconnected dots on a graph | Explains a variable's change as a series of individual events that are not connected in time and/or that are not related to the variable |

