

2007 State of the Bay Report – Explanation Sheet

Information in this packet can be used to discuss the current health of the Chesapeake Bay with your students before they participate in our program *Chesapeake Bay: An Estuary in Crisis*.

The **State of the Bay Report** is published every year by the Chesapeake Bay Foundation as it monitors the health of the Chesapeake Bay over time. For this report, the health of the Chesapeake Bay is divided into three categories: pollution, habitat and fisheries. These categories are further divided into four aspects. The aspects of pollution are: nutrients (nitrogen and phosphorus); dissolved oxygen; water clarity; and toxics. The aspects of habitat are: forested buffers; underwater grasses; wetlands; and resource lands. The aspects of fisheries are: striped bass (rockfish); oysters; crabs (blue crabs); and shad (American shad). Each of these aspects is given a score that indicates its overall health. These scores correspond to letter grades (A+ to F) much like percentages correspond to letter grades in school. The correlation between scores and letter grades is indicated below:

<u>Score</u>	<u>Grade</u>
70 or better	A+
60-69	A
50-59	B+
45-49	B
40-44	C+
35-39	C
30-34	D+
25-29	D
20-25	D-
Below 20	F

In addition to each aspect, the Chesapeake Bay as a whole is given a score and letter grade indicating its overall health. The score given to the Chesapeake Bay in 2007 was 28. The Chesapeake Bay's score has decreased by one point since last year.

The current health of each aspect is measured based on a comparison to the condition of the Chesapeake Bay in the early 1600s, when Captain John Smith was documenting his early explorations. Aspects of the Chesapeake Bay at that time are given a theoretical score of 100. Field observations and data from monitoring programs are used to assign scores to current aspects of the Bay. This score relates their health today to their historical health. For example, in 2007, American shad in the Bay were given a score of 10, which corresponds to a letter grade of F. This indicates that American shad populations in the Chesapeake Bay are in extremely poor condition compared to early-colonial times.

This report does not make the unrealistic expectation that the Chesapeake Bay can ever be restored to its pre-colonial condition. The Bay will never reach a score of 100 again. However, significant improvements in the health of the Bay can be made. The Chesapeake Bay Foundation has assigned a score of 70 as an indication that an aspect of the Bay has been restored or "saved". Striped bass in the Chesapeake Bay have reached this level with a score of 71 and a grade of A+.

The first page of the 2007 State of the Bay report shows a summary of the scores and grades for each aspect of the Chesapeake Bay. The arrows next to the letter grades indicate how the scores have changed since 2006. A horizontal arrow indicates no change in the score since last year, while a downward pointing arrow indicates a decrease in the score since last year. The magnitude of the change since 2006 is shown inside the arrow. The next few pages of the report provide information on each aspect. The last page of the report contains a graph illustrating the **Changes in the Health of the Bay over Time**. Goals for restoration are illustrated as projections (dotted line) on the right of the graph. Feel free to make additional copies if needed. The State of the Bay report can be found online at www.cbf.org/site/DocServer/2007SOTBReport.pdf?docID=10923.