

JATIBOLA SOCIETY

BACKGROUND AND PREMISES

Jatibola Society is an initiative based upon self-paced, culturally based, mastery learning. In addition to conceptual aims, the program is geared towards building motivation and personal efficacy around mathematics and science learning. Our fundamental goal is to equip African American students to achieve high levels of competency, while at the same time developing the kinds of dispositions that will allow them to successfully study mathematics and science at advanced levels and eventually pursue mathematics-science related careers. We are developing a synthesized approach that:

- Uses self-paced modules that guide learners incrementally to mastery;
- Is based upon frameworks from countries whose students perform at top levels in international comparisons of mathematics and science competency (as determined by TIMSS and PISA);
- Incorporates learning concepts in a cultural context, such as referencing achievements of mathematicians and scientists from the African Diaspora (for example, Elbert F. Cox, who in 1925 became the first African American to earn a PhD in mathematics), and African Diasporic contributions to the roots of mathematics and science;

“Jatibola” means mathematician in the Bamana language from West Africa. Many African American young people do not associate being Black with being “mathematician” or being “scientist”. This belief often remains unchallenged and unexamined and is reinforced by the conventional ways in which mathematics and science learning occurs, ways which portray mathematics and science, fundamentally, as the creations of European males. This, in turn, affects the performance of Black students, and, consequently, becomes a self-fulfilling, self-renewing prophecy. We believe that unless and until this phenomenon is addressed concertedly and with intentionality and cultural sensitivity, it will remain a significant limiting factor in the expectations and achievement levels of African American youth.

Jatibola Society students will progress through levels of achievement, somewhat like the belt system in martial arts. Progress will entail demonstrating mastery in

solving mathematics and science problems of increased difficulty and complexity -- arithmetic through calculus and differential equations, including applications in science and engineering. A second component of achievement will include products such as proofs, papers, and research projects. We will identify opportunities to tie these activities into existent programs such as mathematics-science competitions and scholarship programs (e.g., Siemens-Westinghouse Scholarship program, which is based upon research projects). As a way of challenging the notion that mathematics and science achievement is primarily the domain of European cultures, each level of achievement will be associated with a mathematician-scientist from the African Diaspora. Further reinforcement will occur through building cultural content into the manner in which students learn mathematics and science concepts.



The Jatibola Society initiative operates from a “show what you know” premise. The expectations will be framed around demonstrating competencies that are meaningful on the world stage; we are looking far beyond “closing achievement gaps” between Black and White Americans. We believe that young people can and will rise to the occasion if they are presented with compelling challenges and if the rules and expectations are transparent. For example, the rules in an endeavor such as basketball are clear and explicit; one knows what to do in order to get points up on the scoreboard. In contrast, the rules of the academic achievement game are obfuscated. Jatibola Society will be designed so that the “rules” and expectations are explicit; learners will know what they need to do in order to get the “points” and

will be supported and encouraged in doing so.

Throughout the African Diaspora, groups, generally referred to as “associations” or “societies”, have served as primary vehicles for preserving and passing on various forms of knowledge -- profane, profound, open, secret, and in-between -- valued by the community. Jatibola Society is meant to place mathematics and science learning within the context of an activity that has value and significance to the Black community. The name, Jatibola Society, as well as the manner in which the initiative will be implemented, places individual development and achievement within the context of a community of learners – it takes a village to raise a mathematician-scientist.