Enhancement of Photosynthesis Labs Using Vernier's SpectroVis PlusTM

Kathleen Nolan¹ and Marlon Joseph

¹St. Francis College, Department of Biology and Health Sciences, 180 Remsen St., Brooklyn, NY 11201 USA

(knolan@sfc.edu; mdjoseph@sfc.edu)

Students blend various vegetable products such as beets, greens, orange and yellow peppers with water in a blender, strain through cheesecloth, and pour into cuvettes or glass test tubes. These are then used in first a spectrophotometer to create an absorption spectrum, and then in a Vernier SpectroVis Plus spectrometer, which is a colorful tool that yields an instantaneous absorption spectrum. Surveys, after the completion of the laboratory exercise, reveal that most students feel that the SpectroVis Plus helped them understand the concepts of: wavelengths of light, absorbance of light energy, and reflection of a color better.

Keywords: photosynthesis, Vernier

Link to Original Poster

http://www.ableweb.org/volumes/vol-36/poster?art=72

Mission, Review Process & Disclaimer

The Association for Biology Laboratory Education (ABLE) was founded in 1979 to promote information exchange among university and college educators actively concerned with teaching biology in a laboratory setting. The focus of ABLE is to improve the undergraduate biology laboratory experience by promoting the development and dissemination of interesting, innovative, and reliable laboratory exercises. For more information about ABLE, please visit http://www.ableweb.org/

Papers published in *Tested Studies for Laboratory Teaching: Peer-Reviewed Proceedings of the Conference of the Association for Biology Laboratory Education* are evaluated and selected by a committee prior to presentation at the conference, peer-reviewed by participants at the conference, and edited by members of the ABLE Editorial Board.

Citing This Article

Nolan, K. and J. Marlon. 2015. Enhancement of Photosynthesis Labs Using Vernier's SpectroVis PlusTM. Article 72 in *Tested Studies for Laboratory Teaching*, Volume 36 (K. McMahon, Editor). Proceedings of the 36th Conference of the Association for Biology Laboratory Education (ABLE). http://www.ableweb.org/volumes/vol-36/?art=72

Compilation © 2015 by the Association for Biology Laboratory Education, ISBN 1-890444-18-9. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright owner.

ABLE strongly encourages individuals to use the exercises in this proceedings volume in their teaching program. If this exercise is used solely at one's own institution with no intent for profit, it is excluded from the preceding copyright restriction, unless otherwise noted on the copyright notice of the individual chapter in this volume. Proper credit to this publication must be included in your laboratory outline for each use; a sample citation is given above.

© 2015 by Kathleen Nolan