

TEACHER NOTES

LAB VIS 7

RELATED TOPICS

Photosynthesis
Visible spectrum
Energy transfer

STANDARDS ADDRESSED

Science and Technology

3.2.10, 3.2.12

3.3.10, 3.3.12

3.7.10, 3.7.12

PREPARATIONS

The spectrophotometers must warm up for 20 minutes before being used.

CONSIDERATIONS

This very simple lab will give the students practice using a spectrophotometer. It may be a good idea to suggest that the student split up the tasks of reading and recording data. Interesting results could be obtained by repeating the experiment using different leaf samples or different amounts of spinach (for example 0.50 gram or 0.75 gram samples).

SAMPLE DATA

Obtained using 1.035 grams of spinach and 20 mL of 95% ethanol.

Wavelength, nm	Absorbance	Wavelength, nm	Absorbance
350	3.155	575	0.621
375	3.013	600	0.875
400	3.091	625	1.189
425	3.127	650	2.112
450	2.990	675	2.134
475	3.151	700	0.068
500	0.922	725	0.014
525	0.305	750	0.008
550	0.353		