

6th Grade

Measuring Natural Lighting at Snow Creek

Students will compare the natural lighting in areas of the building. Students will be introduced to the concepts of optimizing natural lighting, reducing the need for natural resources to produce light and the goal to have at least 25 foot-candles of natural daylight in each room.

Students will look at several variables while comparing the natural light. Prior to comparison students with their teacher will read the following article pertaining to measuring light intensity <http://www.energybooks.com/pdf/D1150.pdf> .

Materials Needed: Chart and UEi Digital Foot-candle /Lux Light Meter

For each area measured the goal will be to have 25 foot-candles of lighting.

	Blinds Open/ Lights Off	Blinds Closed/ Lights Off	Blinds Open/ Lights On	Blinds Closed/ Lights On	25 Lux/ Foot-candles?
Classroom					
Hallway					
Lobby					
Gym					
Cafeteria					

Follow Up Discussion:

- 1) What affects do the blinds have on natural lighting?
- 2) What affects does the light colored paint have on the hallway foot-candle, if any?
- 3) What would occur if the hallways would have been painted brown?
- 4) Would you be a proponent of sky lights? Why or why not? Predict the benefits and drawbacks.