

### Purpose, Description & Considerations

- sun shade protection is important for children - up to **80% of life-time sun exposure damage happens by age 18**
- the problem is increasing due to the thinning of the ozone layer that filters out UV radiation, known to be the primary cause of skin cancer
- **damaging sun effects strongest between 11 a.m & 3 p.m.**
- **map schoolyard for available shade and sun areas**
- **places to consider sun shade:**
  - meeting and gather areas
  - performance place
  - afterschool activity areas
- **shade may be provided naturally** by trees or a vegetated trellis, a tall deciduous tree with a wide canopy of dense leaves will provide maximum shade in the summer while allowing the warming sun to come through in the winter (note: If newly planted, vegetation may take years to reach maturity and provide adequate shade)
- **shade provided by temporary or permanent shade structures** (fabric or wood) is more immediate and flexible and can be provided protection while waiting for natural vegetation to mature
- **other benefits of shade areas**
  - reduce heat island effect in large areas of asphalt
  - class management tool
- **maintenance considerations**
  - wind load
  - winter maintenance
  - cost for replacement

### Design Checklist

- review map of existing sun shade patterns in schoolyard
- assess need for shade for after school, weekend and summer school programs
- locate trees and plants to provide sun shade
- review options for permanent built structures
- review options for temporary shade with attachment points on permanent structures
- consider additional funding options

### Illustrations



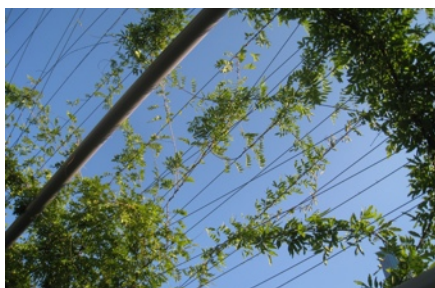
large trees provide shaded seating



temporary shade tent (consider designs for permanent options)



seasonal fabric shade over playground



vines on overhead trellis



temporary umbrella over a school table - not very effective!



shade structure over outdoor tables