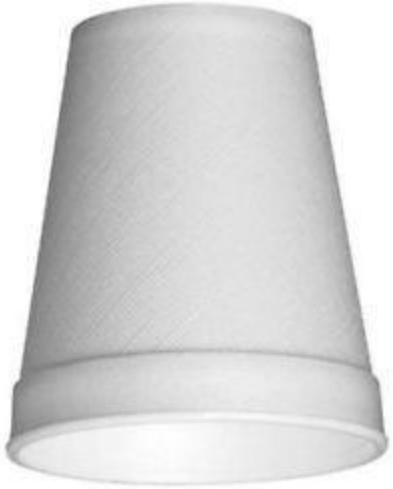
Albedo Effect

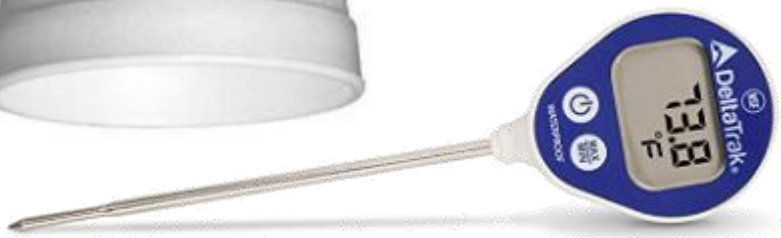
Junior Science

GZ Science Resources

The Albedo Effect is the result of different coloured surfaces reflecting, and absorbing different wavelengths (colours) of visible light. White surfaces reflect all wavelengths of visible light, and black surfaces absorb all wavelengths. Different colours have different energy waves, with red at a lower energy than green and violet



1. Place a digital thermometer probe through the top of a polystyrene cup, so the probe nearly touches the bottom.
2. On a sunny day move around to several ground surfaces such as grass, concrete, dirt, and a white board left out in the sun for at least 30mins.
3. Place the cup down firmly on the surface, and once the temperature stabilises, record the surface type, colour and temperature



Surface	Colour of surface	Temperature °C

1. What coloured surface had the highest temperature reading? _____
2. What explanation can you give for this?

   _____
   _____
   _____

3. What coloured surface had the lowest temperature reading?_____
4. What explanation can you give for this?

   _____
   _____
   _____

5. If ice and snow melt, caused by raising global temperatures, caused darker rock or earth underneath to be exposed, how do you think this might effect the temperature of the surround area?

   _____
   _____
   _____