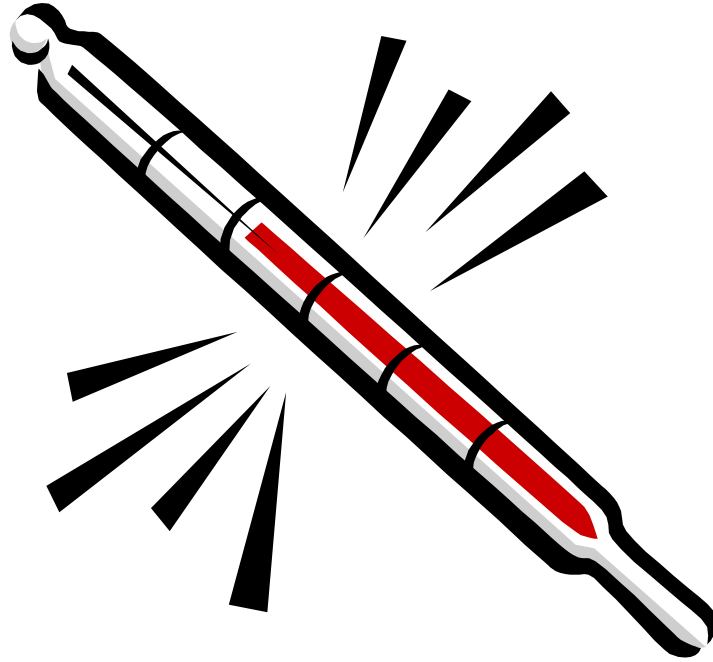


# Playground Equipment Heat Study



*Data Compiled by:*

**UNIVERSAL-ENVIRONMENTAL STRATEGIES**

*—Promoting a Sustainable Future*

UniversalEnvironmentalStrategies.com

Sarasota, Florida

**Gabriel M. Hament**

# Temperatures at Which Skin Burns

Hot Water and Hot Surfaces Burn Skin in:

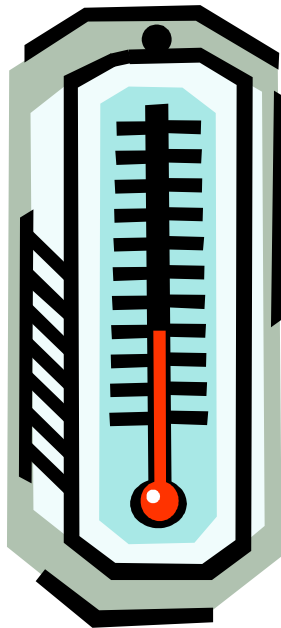
*1 Second at 156°*

2 seconds at 149°

5 seconds at 140°

15 seconds at 133°

*(Degrees Fahrenheit)<sup>i</sup>*



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<sup>i</sup> "<http://www.stringsofhope.org/information/>." Strings of Hope. 2008. 4 Sept. 2008.

# Plastic-Coated Metal Blue Platform Floor

Date	Time of Day	Temperature (In the Sun) (Degrees Fahrenheit)	Temperature (Out of the Sun) (Degrees Fahrenheit)
July 2	2:00 PM	150	X
July 14	4:00 PM	110	X
July 31	4:30 PM	108	X
August 6	4:00 PM	111	X
August 7	2:00 PM	117	X
August 12	11:30 AM	134	X
August 22	1:30 PM	123	X
September 5	2:00 PM	132	X



# Grey Plastic Rock Formation

Date	Time of Day	Temperature (In the Sun) (Degrees Fahrenheit)	Temperature (Out of the Sun) (Degrees Fahrenheit)
July 2	2:00 PM	167	X
July 14	4:00 PM	130	X
July 31	4:30 PM	123	X
August 6	4:00 PM	116	X
August 7	2:00 PM	152	X
August 12	11:30 AM	153	X
August 22	1:30 PM	140	X
September 5	2:00 PM	160	X





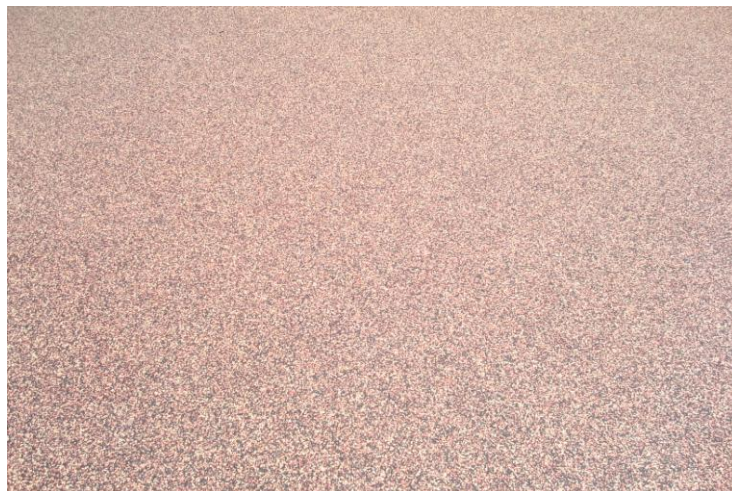
# Grey Plastic Slide

Date	Time of Day	Temperature (In the Sun) (Degrees Fahrenheit)	Temperature (Out of the Sun) (Degrees Fahrenheit)
July 2	2:00 PM	160	X
July 14	4:00 PM	123	X
July 31	4:30 PM	115	X
August 6	4:00 PM	118	X
August 7	2:00 PM	140	X
August 12	11:30 AM	140	X
August 22	1:30 PM	136	X
September 5	2:00 PM	145	X



# Brown-Orange Rubber Ground

Date	Time of Day	Temperature (In the Sun) (Degrees Fahrenheit)	Temperature (Out of the Sun) (Degrees Fahrenheit)	Temperature Outside (Degrees Fahrenheit)	UV Level
September 12	1:30 PM	120	87	89	9





# Red Slide

Date	Time of Day	Temperature (In the Sun) (Degrees Fahrenheit)	Temperature (Out of the Sun) (Degrees Fahrenheit)	Temperature Outside (Degrees Fahrenheit)	UV Level
September 17	1:30 PM	137	94	89	9



# Conclusion

Temperature measurements taken from July of 2008 to October of 2008 yielded alarming results. One temperature reading on July 2, 2008 at 2:00 PM on a sunny day measured 167 degrees Fahrenheit on an unprotected grey plastic rock formation (Pine View School Playground). At this high temperature, a child would be burned in less than one second. In contrast, a temperature reading on the same day at 2:00 PM, on a grey plastic slide measured 102 degrees Fahrenheit (Bay Street Playground). This plastic slide was protected by an Apollo Sunguard Shade System.