

## Light Laws Activity Answers

| A              | B                     | C  | D  | E                            |
|----------------|-----------------------|--|--|------------------------------|
| Star           | Temperature<br>in $K$ | Peak wavelength<br>$\lambda_{\max}$ in $m$ | Location in<br>electromagnetic<br>spectrum of $\lambda_{\max}$ | Energy $P$<br>in $watts/m^2$ |
| Sun            | 5,800                 | 5.00E-07                                   | visible  | 6.42E+07                     |
| Sirius         | 9,880                 | 2.93E-07                                   | ultraviolet  | 5.40E+08                     |
| Canopus        | 7,800                 | 3.72E-07                                   | ultraviolet  | 2.10E+08                     |
| Alpha Centauri | 5,770                 | 5.02E-07                                   | visible  | 6.28E+07                     |
| Arcturus       | 4,290                 | 6.76E-07                                   | visible  | 1.92E+07                     |
| Vega           | 9,600                 | 3.02E-07                                   | ultraviolet  | 4.82E+08                     |
| Capella        | 5,800                 | 5.00E-07                                   | visible  | 6.42E+07                     |
| Rigel          | 11,000                | 2.63E-07                                   | ultraviolet  | 8.30E+08                     |
| Procyon        | 6,530                 | 4.44E-07                                   | visible  | 1.03E+08                     |
| Achernar       | 14,500                | 2.00E-07                                   | ultraviolet  | 2.51E+09                     |