**Light and Shadow**

**Unit 3.3 Transparent Material**

**Can we make sunglasses darker?**

We can use more layers of colored plastic to make even darker sunglasses.

We will need transparent coloured plastic, scissors and a flashlight. Let’s start making our sunglasses more darker.



Predict what will be the darkest set of the layers now carry out the test on different numbers of layer of colored plastic was your prediction correct record your result.

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| **Layers of Coloured Plastic** | **How dark?**  **(Prediction)** | **Observations** |
| **1** | **a little darker** | This would be good on a sunny day |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |

1. Describe the pattern in the results?

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1. Which would make a good pair of sunglasses for a bright day?

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1. If we wear them at night, would we be able to see?

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1. Why should we never look at the Sun even when we are wearing sunglasses?

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1. Complete this conclusion.

Every layer we add makes the sunglasses­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **No.** | **Self-Reflection Criteria** | **Yes** | **No** |
| 1 | I can investigate how light can pass through transparent material and is blocked by opaque material. |  |  |
| 2 | I can identify risk and say how to stay safe. |  |  |
| 3 | I can make predictions and see if it is correct. |  |  |
| 4 | I can describe simple patterns in result. |  |  |
| 5 | I can record my result using a table and make a conclusion. |  |  |