Shadow height investigation planner

**Year 5**

|  |  |
| --- | --- |
| **What are you going to investigate?** Can you write it as a question? | **What do you predict will happen? Why?**Give scientific explanations for your prediction |
| **To make this a fair test what things (variables) are you going to:** |
| **Change?** Change only one thing | **Measure?** What would the change affect? | **Keep the same?** Which variables will you control? |
| **Describe how you will set up your investigation** Write, draw or upload a photo of your drawing | **What equipment will you need?** Use dot points |
| **Write and draw your observations in your science journal** |

**Recording and presenting results**

Record your results in a table.

|  |  |
| --- | --- |
| **Distance from torch to glue stick (cm)** | **Height of shadow (cm)** |
| 5 |  |
| 10 |  |
| 15 |  |
| 20 |  |
| 25 |  |
| 30 |  |

Present your results in a column graph. Write titles for the graph and axis titles and enter the height scale (cms) on the Y-axis. Enter your data by using the shading or fill tool to colour the squares in each column.

|  |
| --- |
| Graph title:  |
|  Y-axis title:  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5 |  | 10 |  | 15 |  | 20 |  | 25 |  | 30 |
|  X-axis title:  |

**Explaining results**

|  |
| --- |
| What happened to the height of the shadow when you changed the distance from the torch to the glue stick? |
| Did the result match your prediction? Explain why and how it was different. |

**Evaluating the investigation**

|  |
| --- |
| What challenges did you experience doing this investigation? |
| How did you, or could you, overcome them? |
| How could you improve this investigation? (fairness/accuracy) |