

# YEAR 9 PROBLEM SOLVING **KNOWLEDGE** ASSESSMENT GRID

## FOUNDATION

Is able to follow the health and safety rules within the workshop environment with some support if needed.

With support you can explain what you are being asked to digitally prototype.

Your flow chart for your program is simple and incomplete

Your program is not finished and contains several errors

You have no evaluation

You understand why we use CAD to help us with programming

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## INTERMEDIATE

Understand the health and safety rules within the workshop environment and be able to explain why they are required.

You can explain what you are being asked to program.

You have a flowchart including feedback with some minor errors

With support you can solve some real life programming scenarios

Your finished programs are complete with some small errors. You have needed some support and have utilised new skills

You are able to verbally explain your program and what has gone well and what can be improved.

You understand how virtual programming can be used to make and test new products

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## HIGHER

Fully appreciates the health and safety rules within the workshop environment and is able to explain confidently why they are required.

You can explain what you are being asked to program and why.

You have a complete program with no errors

You can solve some real life programming scenarios

You have independently developed and programmed your buggy and can articulate your decisions with this exercise.

You have evaluated your program and can explain how it works and highlight areas that may need further development

You understand how virtual programming can be used to make and test new products and the benefits of virtual testing over physical.

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## EXCEPTIONAL

Fully appreciates the health and safety rules within the workshop environment and is able to confidently explain the hazards and risks presented.

You can articulate the design of your program and fully explain your choices in your flow chart.

You have a complete program free from errors and can explain your thinking in terms of your flow chart

You can solve some real life programming scenarios and justify your decisions

You have independently developed and programmed your buggy and can articulate your decisions with this exercise.

You have evaluated your program and can explain how it works and highlight areas that may need further development.

You can fully explain the need for digital programming and how you have utilised its benefits in this project.