

	10.4 & 10.5					
		Sophisticated	Capable	Competent	Partial	Attempted
	Complete a 3D model, using CAD software	Sophisticated use of CATIA software to produce a CAD model to specification, including: <ul style="list-style-type: none"> • Geometry compliance • Tree organization • Fillets • Wheels fit • Front wing design 	Capable use of CATIA software to produce a CAD model to specification including: <ul style="list-style-type: none"> • Geometry compliance • Tree organization • Fillets • Wheels fit • Front wing design 	Competent use of CATIA software to produce a CAD model to specification including: <ul style="list-style-type: none"> • Geometry compliance • Tree organization • Fillets • Wheels fit • Front wing design 	Partial use of CATIA software to produce a CAD model to specification including: <ul style="list-style-type: none"> • Geometry compliance • Tree organization • Fillets • Wheels fit • Front wing design 	Attempted use of CATIA software to produce a CAD model to specification including: <ul style="list-style-type: none"> • Geometry compliance • Tree organization • Fillets • Wheels fit • Front wing design
<i>Collecting, managing and interpreting data</i>	Virtual Wind Tunnel, Computational Fluid Dynamic testing and analysis. 10.4	Sophisticated completion of: <ul style="list-style-type: none"> • Streamline plot, .avi file • Software setup – 100 iterations • Retrieval of Cd data • Force data • .stl file conversion 	Capable completion of: <ul style="list-style-type: none"> • Streamline plot, .avi file • Software setup – 100 iterations • Retrieval of Cd data • Force data • .stl file conversion 	Competent completion of: <ul style="list-style-type: none"> • Streamline plot, .avi file • Software setup – 100 iterations • Retrieval of Cd data • Force data • .stl file conversion 	Partial completion of: <ul style="list-style-type: none"> • Streamline plot, .avi file • Software setup – 100 iterations • Retrieval of Cd data • Force data • stl file conversion 	Attempted completion of: <ul style="list-style-type: none"> • Streamline plot, .avi file • Software setup – 100 iterations • Retrieval of Cd data • Force data • stl file conversion
<i>Using a range of digital systems</i>	Numeric Code writing, editing and post processing.	Sophisticated completion of: <ul style="list-style-type: none"> • .stl file generation • accurate placement of the model on the XY plane • canned cycle modifications – X axis travel and step over • simulation • correct datum positioning • post processing • 4th axis code editing. 	Capable completion of: <ul style="list-style-type: none"> • .stl file generation • accurate placement of the model on the XY plane • canned cycle modifications – X axis travel and step over • simulation • correct datum positioning • post processing • 4th axis code editing. 	Competent completion of: <ul style="list-style-type: none"> • .stl file generation • accurate placement of the model on the XY plane • canned cycle modifications – X axis travel and step over • simulation • correct datum positioning • post processing • 4th axis code editing. 	Partial completion of: <ul style="list-style-type: none"> • .stl file generation • accurate placement of the model on the XY plane • canned cycle modifications – X axis travel and step over • simulation • correct datum positioning • post processing • 4th axis code editing. 	Attempted completion of: <ul style="list-style-type: none"> • .stl file generation • accurate placement of the model on the XY plane • canned cycle modifications – X axis travel and step over • simulation • correct datum positioning • post processing • 4th axis code editing.