

Composite Materials - Curriculum link

By Hilary Byrne

Year 7: Change to an object's motion is caused by unbalanced forces, including Earth's gravitational attraction, acting on the object

- investigating the effects of applying different forces to familiar objects
- investigating common situations where forces are balanced, such as stationary objects, and unbalanced, such as falling objects

Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed working collaboratively to decide how to approach an investigation

Year 8: People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity

- investigating how scientists have created new materials such as synthetic fibers, heat-resistant plastics and pharmaceuticals

Part 1.	Demonstrated inquiry	Prescribed inquiry	Structured inquiry	Guided inquiry	Open inquiry
Questions	No question	Teacher provides question	Learner sharpens question	Learner selects question	Learner poses questions
Plans	No planning	Teacher provides procedure	Teacher discusses possible plans	Learner guided while planning	Learner determines plans
Conducts	Teacher conducts	Learner told how to conduct and record	Learner sharpens plan and conducts	Learner guided while conducting and recording	Learner conducts and records
Analyse	Teacher analyses	Learner told how to analyse data	Teacher discusses possible analyses	Learner guided in analysis	Learner analyses data identifying trends
Problem Solve	No problem solving	Teacher provides reasoning and links	Teacher discusses reasoning and conclusion	Learner guided in reasoning and formulate conclusion	Learner reasons to formulate conclusions
Communicate	No conclusion	Teacher writes conclusion	Learner writes conclusion	Learner guided on justifying findings and communicating	Learner justifies findings and conclusions

Part 2.	Demonstrated inquiry	Prescribed inquiry	Structured inquiry	Guided inquiry	Open inquiry
Questions	No question	Teacher provides question	Learner sharpens question	Learner selects question	Learner poses questions
Plans	No planning	Teacher provides procedure	Teacher discusses possible plans	Learner guided while planning	Learner determines plans
Conducts	Teacher conducts	Learner told how	Learner sharpens	Learner guided while	Learner conducts

		to conduct and record	plan and conducts	conducting and recording	and records
Analyse	Teacher analyses	Learner told how to analyse data	Teacher discusses possible analyses	Learner guided in analysis	Learner analyses data identifying trends
Problem Solve	No problem solving	Teacher provides reasoning and links	Teacher discusses reasoning and conclusion	Learner guided in reasoning and formulate conclusion	Learner reasons to formulate conclusions
Communicate	No conclusion	Teacher writes conclusion	Learner writes conclusion	Learner guided on justifying findings and communicating	Learner justifies findings and conclusions

Part 3.	Demonstrated inquiry	Prescribed inquiry	Structured inquiry	Guided inquiry	Open inquiry
Questions	No question	Teacher provides question	Learner sharpens question	Learner selects question	Learner poses questions
Plans	No planning	Teacher provides procedure	Teacher discusses possible plans	Learner guided while planning	Learner determines plans
Conducts	Teacher conducts	Learner told how to conduct and record	Learner sharpens plan and conducts	Learner guided while conducting and recording	Learner conducts and records
Analyse	Teacher analyses	Learner told how to analyse data	Teacher discusses possible analyses	Learner guided in analysis	Learner analyses data identifying trends
Problem Solve	No problem solving	Teacher provides reasoning and links	Teacher discusses reasoning and conclusion	Learner guided in reasoning and formulate conclusion	Learner reasons to formulate conclusions
Communicate	No conclusion	Teacher writes conclusion	Learner writes conclusion	Learner guided on justifying findings and communicating	Learner justifies findings and conclusions