TITANIC SCIENCE

CURRICULUM GRID FOR SCOTLAND

Early level: The final two years of early learning and childcare before a child goes to school and P1, or later for some.
First Level: To the end of P4, but earlier or later for some.
Second Level: To the end of P7, but earlier or later for some.

Lesson	Ideas Explored	Organiser	Experiences and Outcomes
Chapter One Building the Titanic	*Forces* *Pulleys & Propellers*	How were all the materials needed to build the Titanic lifted? *Organiser: Forces, electricity and waves (Forces)* How did Titanic move? *Organiser: Planet Earth (Energy sources and sustainability)* *Organiser: Forces, electricity and waves (Forces)*	SCN 2-08a I have collaborated in investigations to compare magnetic, electrostatic and gravitational forces and have explored their practical applications. SCN 0-04a I have experienced, used and described a range of toys and common appliances. I can say "what makes it go" and say what they do when they work SCN 1-04a I am aware of different types of energy around me and can show their importance to everyday life and my survival SCN 0-07a Through everyday experiences and play with a variety of toys and other objects, I can recognise simple forces and describe their effects. SCN 1-07a By investigating forces on toys and other objects, I can predict the effect on the shape or motion of objects.

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Chapter Two Titanic Strikes the Iceberg	*Temperature changes (endothermic and exothermic reactions)* *How do de-icers work?* *Making slushy drinks*	Materials - Properties I wonder how much of the iceberg is under the water? *Organiser: Planet Earth (Processes of the planet)* Is increasing the temperature the only way to melt ice? Organiser: Planet Earth (Processes of the planet)	SCN 0-05a/1-05a By investigating how water can change from one form to another, I can relate my findings to everyday experiences. SCN 2-05a I can apply my knowledge of how water can change state to help me understand the processes involved in the water cycle in nature over time. SCN 0-05a/1-05a By investigating how water can change from one form to another, I can relate my findings to everyday experiences. SCN 2-05a I can apply my knowledge of how water can change state to help me understand the processes involved in the water cycle in nature over time.
Chapter Three "We are sinking fast!"	*Electricity* *Switches*	How did the Titanic send her distress signals? Organiser: Forces, electricity and waves (Electricity)	SCN 0-09a I know how to stay safe when using electricity. I have helped to make a display to show the importance of electricity in our daily lives. SCN 1-09a I can describe an electrical circuit as a continuous loop of conducting materials. I can combine simple components in a series circuit to make a game or model. SCN 2-09a I have used a range of components to help to make a variety of circuits for differing purposes. I can represent my circuit using symbols and describe the transfer of energy around the circuit.

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Chapter Four Distress Signals	*Forces* *Chemical reactions* *Jump Rockets* *Exploding Film cases*	How did the distress signals get so high in the sky? Organiser: Planet Earth (Energy sources and sustainability) *Organiser: Forces, electricity and waves (Forces)*	SCN 0-04a I have experienced, used and described a range of toys and common appliances. I can say "what makes it go" and say what they do when they work. SNC 0-07a Through everyday experiences and play with a variety of toys and other objects, I can recognise simple forces and describe their effects. SCN 1-07a By investigating forces on toys and other objects, I can predict the effect on the shape or motion of objects. SCN 2-07a By investigating how friction, including air resistance, affects motion, I can suggest ways to improve efficiency in moving objects.
		How do rockets work? *Organiser: Materials (Properties and uses of substances)*	SCN 1-15a Through exploring properties and sources of materials, I can choose appropriate materials to solve practical challenges SCN 2-15a By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.
		Organiser: Materials (Chemical changes)	SCN 2-18a I have collaborated in activities which safely demonstrate simple chemical reactions using everyday chemicals. I can show an appreciation of a chemical reaction as being a change in which different materials are made.

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Chapter Five **Abandon Ship**	*Thermal Properties of materials* *Icy water and motor skills*	*Why are the people in the lifeboat huddling together? /How does the cold water affect the bodies of those overboard?* *Organiser: Biological systems (Body systems and cells)*	SCN 2-12a By investigating some body systems and potential problems which they may develop, I can make informed decisions to help me maintain my health and well-being. SCN 2-12b I have explored the structure and function of sensory organs to develop my understanding of body actions in response to outside conditions.
Chapter Six **Sinking of Titanic**	*Floating and sinking* *Bulkheads*	*Why did the watertight compartments fail? / Why are ships always a certain shape?* *Organiser: Forces, electricity and waves (Forces)*	SCN 2-08b By investigating floating and sinking of objects in water, I can apply my understanding of buoyancy to solve a practical challenge.