

Module	Lesson	Resource name	Experiences and Outcomes	Benchmarks			
Electricity	Electricity 1	Lesson 1 - Outline Introductory Video - Our Energy Use Instruction Slides - Turbines & Gears Worksheet 1a - Turbines & Gears Worksheet 1b - Turbines & Gears Extension Worksheet 1a & 1b - Answers Template - Turbines & Gears	I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.			
			I am investigating different careers/occupations, ways of working, and learning and training paths. I am gaining experience that helps me recognise the relevance of my learning, skills and interests to my future life. HWB 2-20a	Identifies connections between skills and the world of work.			
			I can select ideas and relevant information, organise these in an appropriate way for my purpose and use suitable vocabulary for my audience. LIT 2-06a	Makes relevant notes using own words, for the most part, and uses these to create new texts for a range of purposes.			
			I have worked with others to explore, and present our findings on, how mathematics impacts on the world and the important part it has played in advances and inventions. MTH 2-12a	Contributes to discussions and activities on the role of mathematics in the creation of important inventions, now and in the past.			
			Through exploring non-renewable energy sources, I can describe how they are used in Scotland today and express an informed view on the implications for their future use. SCN 2-04b	Researches non-renewable sources of energy, such as fossil fuels and nuclear, and discusses how these are used in Scotland. Draws on increasing knowledge and understanding to suggest ways in which they can reduce their own energy use and live more sustainably.			
			I can carry out practical tasks and investigations involving timed events and can explain which unit of time would be most appropriate to use. MNU 2-10b	Chooses the most appropriate timing device in practical situations and records using relevant units, including hundredths of a second.			
			Through research and discussion, I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this has made on society. SCN 2-20a	Demonstrates understanding of how science impacts on every aspect of our lives. Relates the development of scientific skills in the classroom to an increasingly wide variety of science, technology, engineering and mathematics (STEM) careers.			
	Electricity 2	Lesson 2 - Outline Introductory Video - My Energy Future Instruction Slides - Supply & Demand Worksheet 2a - Supply & Demand Worksheet 2b - Supply & Demand Extension Worksheet 2a & 2b - Answers Home Activity Outline - Bird Bother Home Activity Worksheet - Bird Bother Home Activity Worksheet - Answers	I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.			
			I can extend my knowledge and understanding of engineering disciplines to create solution. TCH 2-12a	Understands the difference between different engineering disciplines. • Understands different energy types. • Builds/simulates solutions to engineering problems.			
			I am investigating different careers/occupations, ways of working, and learning and training paths. I am gaining experience that helps me recognise the relevance of my learning, skills and interests to my future life. HWB 2-20a	Identifies connections between skills and the world of work.			
			I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.			
			I can use my knowledge of the coordinate system to plot and describe the location of a point on a grid. MTH 2-18a / MTH 3-18a	Describes, plots and records the location of a point, in the first quadrant, using coordinate notation.			
			Having discussed the variety of ways and range of media used to present data, I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading. MNU 2-20a	Collects, organises and displays data accurately in a variety of ways including through the use of digital technologies, for example, creating surveys, tables, bar graphs, line graphs, frequency tables, simple pie charts and spreadsheets. Analyses, interprets and draws conclusions from a variety of data.			
			I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally-responsible way. SOC 2-08a	Identifies at least three impacts of human activity on the environment. Suggests at least three ways in which people can live in a more environmentally responsible way.			
Transport	Transport 1	Lesson 1 - Outline Introductory Video - Sustainable Transport Worksheet 1 - Poster Research	I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.			
			Using what I know about the features of different types of texts, I can find, select and sort information from a variety of sources and use this for different purposes. LIT 2-14a	Scans texts to find key information. Finds, selects and sorts relevant information from a range of sources.			
			By considering the type of text I am creating, I can select ideas and relevant information, organise these in an appropriate way for my purpose and use suitable vocabulary for my audience. LIT 2-26a	Uses notes and/or other sources to develop thinking and create new texts. Organises information in a logical way. Selects relevant ideas and information. Uses appropriate vocabulary, including subject-specific vocabulary, to suit purpose and audience.			
			I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally-responsible way. SOC 2-08a	Identifies at least three impacts of human activity on the environment. Suggests at least three ways in which people can live in a more environmentally responsible way			
			Having explored the ways journeys can be made, I can consider the advantages and disadvantages of different forms of transport, discussing their impact on the environment. SOC 2-09a	Identifies at least four ways in which journeys can be made. Describes at least one advantage and disadvantage for each form of transport. Shares knowledge about the impact of the various types of transport on the environment either verbally or in writing.			
			I can use digital technologies to search, access and retrieve information and are aware that not all of this information will be credible. TCH 2-02a	Uses search engines to search the internet for specific or relevant information for example, using quotation marks to narrow the results. Access websites and use navigation skills to retrieve information for a specific task.			
			I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.			
	Transport 2	Lesson 2 - Outline Introductory Video - Hydrogen Fuel Instruction Slides - Hydrogen Hurray Worksheet 2 - Hydrogen Hurray Worksheet 2 - Answers Home Activity Outline - Transport Passport Home Activity Worksheet - Transport Passport Home Activity Worksheet - Answers	I am developing and sustaining my levels of fitness. HWB 2-22a	Moves at different speeds and changes direction quickly in balance and with control. Accelerates quickly from a stationary position.			
			I am experiencing enjoyment and achievement on a daily basis by taking part in different kinds of energetic physical activities of my choosing, including sport and opportunities for outdoor learning, available at my place of learning and in the wider community. HWB 2-25a	Participates daily in moderate to vigorous physical activity.			
			Through research and discussion, I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this has made on society. SCN 2-20a	Demonstrates understanding of how science impacts on every aspect of our lives. Relates the development of scientific skills in the classroom to an increasingly wide variety of science, technology, engineering and mathematics (STEM) careers.			
			Having explored the ways journeys can be made, I can consider the advantages and disadvantages of different forms of transport, discussing their impact on the environment. SOC 2-09a	Identifies at least four ways in which journeys can be made. Describes at least one advantage and disadvantage for each form of transport. Shares knowledge about the impact of the various types of transport on the environment either verbally or in writing.			
			I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.			
			Heat	Heat 1	Lesson 1 - Outline Introductory Video - Heating our Homes Instruction Slides - Heat Transfer Investigation Worksheet 1 - Heat Transfer Investigation	I am investigating different careers/occupations, ways of working, and learning and training paths. I am gaining experience that helps me recognise the relevance of my learning, skills and interests to my future life. HWB 2-20a	Identifies connections between skills and the world of work.

		Worksheet 1 - Answers Teacher Instructions - Heat Charades	I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.
			I can carry out practical tasks and investigations involving timed events and can explain which unit of time would be most appropriate to use. MNU 2-10b	Chooses the most appropriate timing device in practical situations and records using relevant units, including hundredths of a second
			Through exploring non-renewable energy sources, I can describe how they are used in Scotland today and express an informed view on the implications for their future use. SCN 2-04b	Researches non-renewable sources of energy, such as fossil fuels and nuclear, and discusses how these are used in Scotland. Draws on increasing knowledge and understanding to suggest ways in which they can reduce their own energy use and live more sustainably.
			Through research and discussion, I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this has made on society. SCN 2-20a	Demonstrates understanding of how science impacts on every aspect of our lives. Relates the development of scientific skills in the classroom to an increasingly wide variety of science, technology, engineering and mathematics (STEM) careers.
			I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally-responsible way. SOC 2-08a	Identifies at least three impacts of human activity on the environment. Suggests at least three ways in which people can live in a more environmentally responsible way.
			I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.
Heat 2		Lesson 2 - Outline Introductory Video - Biomass & Heat Networks Instruction Slides - Heat Network Map Worksheet 2 - Heat Network Map Worksheet 2 - Answers Home Activity Outline - Where has the Heat Gone? Homework Activity Worksheet - Where has the Heat Gone? Home Activity Worksheet - Answers	I am investigating different careers/occupations, ways of working, and learning and training paths. I am gaining experience that helps me recognise the relevance of my learning, skills and interests to my future life. HWB 2-20a	Identifies connections between skills and the world of work.
			I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.
			By considering examples where energy is conserved, I can identify the energy source, how it is transferred and ways of reducing wasted energy. SCN 2-04a	Explains that when energy transfers and transformations take place, energy is converted into 'useful' and 'wasted' energy, for example a mechanical braking system transforms kinetic energy into heat energy which is dissipated to the atmosphere as 'waste' heat.
			I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally-responsible way. SOC 2-08a	Identifies at least three impacts of human activity on the environment. Suggests at least three ways in which people can live in a more environmentally responsible way.
			I can analyse how lifestyles can impact on the environment and Earth's resources and can make suggestions about how to live in a more sustainable way. TCH 2-06a	Explains how and why it is important to conserve energy.
			I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.
Carbon Capture	Carbon Capture 1	Lesson 1 - Outline Introductory Video - Natural Carbon Stores Instruction Slides - Tea Testing Worksheet 1 - Tea Testing Worksheet 1 - Answers	I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.
			I can describe the major characteristic features of Scotland's landscape and explain how these are formed. SOC 2-07a	Identifies at least three features of Scotland's landscape and can provide a basic explanation of how these are formed.
			I am investigating different careers/occupations, ways of working, and learning and training paths. I am gaining experience that helps me recognise the relevance of my learning, skills and interests to my future life. HWB 2-20a	Identifies connections between skills and the world of work.
			I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. LIT 2-07a	Asks and responds to a range of questions, including literal, inferential and evaluative questions, to demonstrate understanding of spoken texts.
	Carbon Capture 2	Lesson 2 - Outline Introductory Video - Carbon Capture Technology Instruction Slides - Capturing Carbon Worksheet 2a - Capturing Carbon Worksheet 2b - Designing Carbon Capture Worksheet 2a & 2b - Answers Home Activity Outline - Peatland Protection Home Activity Worksheet - Peatland Protection Home Activity Worksheet - Answers	I can report and comment on current scientific news items to develop my knowledge and understanding of topical science. SCN 2-20b	Shares opinions about a variety of topical scientific issues considering, for example, moral, ethical, societal, cultural, economic and environmental aspects.
			Using what I know about the features of different types of texts, I can find, select and sort information from a variety of sources and use this for different purposes. LIT 2-14a	Scans texts to find key information. Finds, selects and sorts relevant information from a range of sources
			Having discussed the variety of ways and range of media used to present data, I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading. MNU 2-20a	Collects, organises and displays data accurately in a variety of ways including through the use of digital technologies, for example, creating surveys, tables, bar graphs, line graphs, frequency tables, simple pie charts and spreadsheets. Analyses, interprets and draws conclusions from a variety of data.
			By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed. SCN 2-15a	Observes and identifies some of the signs of a chemical reaction, for example, production of bubbles, colour / texture change and heat given out / taken in.
			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. SCN 2-19a	Collaborates with others to safely demonstrate simple chemical reactions, for example, effervescence. Investigates examples of everyday chemical reactions, such as burning and corrosion, and names some of the new substances which are produced. Uses prior knowledge to identify when a chemical reaction has occurred to produce a new substance.
			Through research and discussion, I have an appreciation of the contribution that individuals are making to scientific discovery and invention and the impact this has made on society. SCN 2-20a	Demonstrates understanding of how science impacts on every aspect of our lives. Relates the development of scientific skills in the classroom to an increasingly wide variety of science, technology, engineering and mathematics (STEM) careers.
			I can report and comment on current scientific news items to develop my knowledge and understanding of topical science. SCN 2-20b	Shares opinions about a variety of topical scientific issues considering, for example, moral, ethical, societal, cultural, economic and environmental aspects.
			I can make suggestions as to how individuals and organisations may use technologies to support sustainability and reduce the impact on our environment. TCH 2-07a	Discusses the advantages and disadvantages of how technologies impact on the environment for example, renewable energy technologies.