### Main Criteria: Forward Education

Secondary Criteria: Scotland Mathematics Curriculum for Excellence - Experiences & Outcomes, Scotland Sciences Curriculum for Excellence - Experiences & Outcomes, Scotland Technologies Curriculum for Excellence - Experiences & Outcomes

Subjects: Mathematics, Science, Technology Education

Grades: 7, 8, Key Stage 3

## **Forward Education**

## Wildfire detection with Autonomous Vehicles

# Scotland Mathematics Curriculum for Excellence - Experiences & Outcomes

Mathematics

Grade 7 - Adopted: 2017

LEVEL / STRAND	SCT.NM M.	Fourth Level - Number, money and measure
EXPERIENCES	NMM.10.	Patterns and relationships
OUTCOMES	NMM.10. 4.	I can use a given formula to generate points lying on a straight line, plot them to create a graphical representation then use this to answer related questions. MTH 4-13d

### Scotland Mathematics Curriculum for Excellence - Experiences & Outcomes

## Mathematics

Grade 8 - Adopted: 2017

LEVEL / STRAND	SCT.NM M.	Fourth Level - Number, money and measure
EXPERIENCES	NMM.10.	Patterns and relationships
OUTCOMES	NMM.10. 4.	I can use a given formula to generate points lying on a straight line, plot them to create a graphical representation then use this to answer related questions. MTH 4-13d

### Scotland Sciences Curriculum for Excellence - Experiences & Outcomes

Science

Grade 7 - Adopted: 2017

LEVEL / STRAND	SCT.PE.	Third Level – Planet Earth
EXPERIENCES	PE.2.	Energy sources and sustainability

OUTCOMES PE.2.1. I can use my knowledge of the different ways in which heat is transferred between hot and cold objects and the thermal conductivity of materials to improve energy efficiency in buildings or other systems. SCN 3-04a

LEVEL / STRAND	SCT.PE.	Third Level – Planet Earth
EXPERIENCES	PE.3.	Processes of the planet
OUTCOMES	PE.3.2.	I can explain some of the processes which contribute to climate change and discuss the possible impact of atmospheric change on the survival of living things. SCN 3-05b
LEVEL / STRAND	SCT.PE.	Fourth Level – Planet Earth

OUTCOMES	PE.1.1.	I understand how animal and plant species depend on each other and how living things are adapted for survival. I
		can predict the impact of population growth and natural hazards on biodiversity. SCN 4-01a

**Biodiversity and interdependence** 

EXPERIENCES

PE.1.

LEVEL / STRAND	SCT.PE.	Fourth Level – Planet Earth
EXPERIENCES	PE.3.	Processes of the planet
OUTCOMES	PE.3.1.	I have developed my understanding of the kinetic model of a gas. I can describe the qualitative relationships between pressure, volume and temperature of gases. SCN 4-05a
OUTCOMES	PE.3.2.	Through exploring the carbon cycle, I can describe the processes involved in maintaining the balance of gases in the air, considering causes and implications of changes in the balance. SCN 4-05b
Scotland Sciences Curriculum for Excellence - Experiences & Outcomes Science Grade 8 - Adopted: 2017		
LEVEL / STRAND	SCT.PE.	Third Level – Planet Earth
EXPERIENCES	PE.2.	Energy sources and sustainability
OUTCOMES	PE.2.1.	I can use my knowledge of the different ways in which heat is transferred between hot and cold objects and the thermal conductivity of materials to improve energy efficiency in buildings or other systems. SCN 3-04a
LEVEL / STRAND	SCT.PE.	Third Level – Planet Earth
EXPERIENCES	PE.3.	Processes of the planet
OUTCOMES	PE.3.2.	I can explain some of the processes which contribute to climate change and discuss the possible impact of atmospheric change on the survival of living things. SCN 3-05b
LEVEL / STRAND	SCT.PE.	Fourth Level – Planet Earth
EXPERIENCES	PE.1.	Biodiversity and interdependence

OUTCOMES PE.1.1. I understand how animal and plant species depend on each other and how living things are adapted for survival. I can predict the impact of population growth and natural hazards on biodiversity. SCN 4-01a

LEVEL / STRAND	SCT.PE.	Fourth Level – Planet Earth
EXPERIENCES	PE.3.	Processes of the planet
OUTCOMES	PE.3.1.	I have developed my understanding of the kinetic model of a gas. I can describe the qualitative relationships between pressure, volume and temperature of gases. SCN 4-05a
OUTCOMES	PE.3.2.	Through exploring the carbon cycle, I can describe the processes involved in maintaining the balance of gases in the air, considering causes and implications of changes in the balance. SCN 4-05b
		Scotland Technologies Curriculum for Excellence - Experiences & Outcomes

Scotland Technologies Curriculum for Excellence - Experiences & Outcomes

Technology Education

Grade 7 - Adopted: 2009

LEVEL / STRAND	SCT.FTC	Fourth Level - Food and textiles contexts for developing technological skills and knowledge

EXPERIENCES AND OUTCOMES	FTC.4.	I can apply skills of critical thinking when evaluating the quality and effectiveness of my own or others" products. TCH 4-11b
		Scotland Technologies Curriculum for Excellence - Experiences & Outcomes Technology Education Grade 8 - Adopted: 2009
LEVEL / STRAND	SCT.FTC	Fourth Level - Food and textiles contexts for developing technological skills and knowledge
EXPERIENCES AND OUTCOMES	FTC.4.	I can apply skills of critical thinking when evaluating the quality and effectiveness of my own or others" products. TCH 4-11b