

# 1. WHAT'S IN MY BREAKFAST CEREAL?

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

Demonstrate that dissolving, mixing and changes of state are reversible changes.

### LKS2 Working Scientifically

Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

### UKS2 Working Scientifically

Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN 2-16a:** I have participated in practical activities to separate simple mixtures of substances and can relate my findings to my everyday experience.

**SCN 3-16a:** I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components.

### Introductory Statements: Sciences

develop curiosity and understanding of the environment and my place in the living, material and physical world.

## WALES

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### The Sustainable Earth

**3.** A comparison of the features and properties of some natural and made materials.

**5.** How some materials are formed or produced.

### Skills: Communication

**2.** Communicate clearly by speech, writing, drawings, diagrams, charts, tables, bar charts, line graphs, videos, and ICT packages, using relevant scientific vocabulary.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 4: Change Over Time

Ways in which change occurs over both short and long periods of time in the physical and natural world.

### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them.

## 2. WHAT'S IN A MINCE PIE?

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### ENGLAND

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#### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).

#### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

Use knowledge of solids, liquids and gases to decide how mixtures might be separated,

including through filtering, sieving and evaporating.

Demonstrate that dissolving, mixing and changes of state are reversible changes.

#### LKS2 Working Scientifically

Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

#### UKS2 Working Scientifically

Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

### SCOTLAND

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#### Sciences: Materials ~ Properties and Uses of Substances

**SCN2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

**SCN 2-16a:** I have participated in practical activities to separate simple mixtures of substances and can relate my findings to my everyday experience.

**SCN 3-16a:** I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components.

**SCN 3-16b:** I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components.

### WALES

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#### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.

5. How some materials are formed or produced.

#### Skills: Communication

1. Search for, access and select relevant scientific information, from a range of sources, including ICT.

2. Communicate clearly by speech, writing, drawings, diagrams, charts, tables, bar charts, line graphs, videos, and ICT packages, using relevant scientific vocabulary.

### NORTHERN IRELAND

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#### The World Around Us: Key Stage 2

##### STRAND 4: Change Over Time

How change is a feature of the human and natural world and may have consequences for our lives and the world around us.

Ways in which change occurs over both short and long periods of time in the physical and natural world.

#### Progress in learning: key stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.

# 3. BAKING MINCE PIES

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees celsius (°C).

### Y5 properties and changes of materials

Compare and group together everyday materials on the basis of their properties.

Demonstrate that dissolving, mixing and changes of state are reversible changes.

Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

### Lks2 working scientifically

Using straightforward scientific evidence to answer questions or to support their findings.

### Uks2 working scientifically

Identifying scientific evidence that has been used to support or refute ideas or arguments.

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

**SCN 2-16a:** I have participated in practical activities to separate simple mixtures of substances and can relate my findings to my everyday experience.

**SCN 3-16a:** I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components.

### Introductory Statements: sciences

Develop skills for learning, life and work.

Apply safety measures and take necessary action to control risk and hazards.

## WALES

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### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.

5. How some materials are formed or produced.

### ENQUIRY

#### Planning

2. Predictions using some previous knowledge and understanding.

7. Any hazards and risks to themselves and others.

### Developing

1. Use apparatus and equipment correctly and safely.

4. Make comparisons and identify and describe trends or patterns in data and information.

5. Use some prior knowledge to explain links between cause and effect when concluding.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 4: Change Over Time

How change is a feature of the human and natural world and may have consequences for our lives and the world around us.

Ways in which change occurs over both short and long periods of time in the physical and natural world.

#### Progress in learning: key stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.

# 4. WHAT'S IN A BAR OF SOAP?

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

### LKS2 Working Scientifically

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

### UKS2 Working Scientifically

Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN 2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

### Introductory Statements: sciences

Recognise the impact the sciences make on my life, the lives of others, the environment and on society.

Recognise the role of creativity and inventiveness in the development of the sciences.

## WALES

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### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.
4. The properties of materials relating to their uses.
5. How some materials are formed or produced.

### Skills: co/mmunication

2. Communicate clearly by speech, writing, drawings, diagrams, charts, tables, bar charts, line graphs, videos, and ict packages, using relevant scientific vocabulary.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 4: Change Over Time

How change is a feature of the human and natural world and may have consequences for our lives and the world around us.

Ways in which change occurs over both short and long periods of time in the physical and natural world.

### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.

# 5. WHAT'S IN A BUBBLE MIXTURE?

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## ENGLAND

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### Y4 States of Matter

compare and group materials together, according to whether they are solids, liquids or gases

### Y5 Properties and Changes of Materials

compare and group together everyday materials on the basis of their properties

### LKS2 Working Scientifically

making systematic and careful observations and, where appropriate, taking accurate

measurements using standard units, using a range of equipment

using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

### UKS2 Working Scientifically

taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate

using test results to make predictions to set up further comparative and fair tests

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

### Introductory Statements: sciences

Develop curiosity and understanding of the environment and my place in the living, material and physical world.

Develop the skills of scientific inquiry and investigation using practical techniques.

## WALES

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### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.
4. The properties of materials relating to their uses.
5. How some materials are formed or produced.

### ENQUIRY

#### Developing

2. Make careful observations and accurate measurements.
3. Check observations and measurements by repeating them in order to collect reliable data.
4. Make comparisons and identify and describe trends or patterns in data and information.
5. Use some prior knowledge to explain links between cause and effect when concluding.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 4: Change Over Time

Ways in which change occurs over both short and long periods of time in the physical and natural world.

### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.

# 6. WHAT'S IN WASHING PRODUCTS?

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials.

Demonstrate that dissolving, mixing and changes of state are reversible changes.

### LKS2 Working Scientifically

Setting up simple practical enquiries, comparative and fair tests.

### UKS2 Working Scientifically

Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

**SCN 2-16a:** I have participated in practical activities to separate simple mixtures of substances and can relate my findings to my everyday experience.

### Introductory Statements: sciences

Develop curiosity and understanding of the environment and my place in the living, material and physical world.

Develop the skills of scientific inquiry and investigation using practical techniques.

## WALES

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### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.
4. The properties of materials relating to their uses.
5. How some materials are formed or produced.

### ENQUIRY

#### Planning

4. When carrying out a fair test, the key variables that need to be controlled and how to change the independent variable whilst keeping other key variables the same.
5. The observations or measurements that need to be made.
6. The equipment and techniques required for the enquiry.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 4: Change Over Time

How change is a feature of the human and natural world and may have consequences for our lives and the world around us.

Ways in which change occurs over both short and long periods of time in the physical and natural world.

### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.

Designing and carrying out fair tests.

# 7. WHAT'S IN CREAM?

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

Demonstrate that dissolving, mixing and changes of state are reversible changes.

Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

### LKS2 Working Scientifically

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

### UKS2 Working Scientifically

Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

**SCN 3-16a:** I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components.

### Introductory Statements: sciences

Develop curiosity and understanding of the environment and my place in the living, material and physical world.

Develop the skills of scientific inquiry and investigation using practical techniques.

## WALES

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### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.
4. The properties of materials relating to their uses.
5. How some materials are formed or produced.

### Skills: Communication

2. Communicate clearly by speech, writing, drawings, diagrams, charts, tables, bar charts, line graphs, videos, and ICT packages, using relevant scientific vocabulary.

### ENQUIRY

#### Developing

2. Make careful observations and accurate measurements, using digital and ICT equipment at times.
4. Make comparisons and identify and describe trends or patterns in data and information.
5. Use some prior knowledge to explain links between cause and effect when concluding.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 4: Change Over Time

How change is a feature of the human and natural world and may have consequences for our lives and the world around us

Ways in which change occurs over both short and long periods of time in the physical and natural world

### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them

Investigating similarities and differences, patterns and change

# 8. WHAT'S IN MY BREAKFAST CEREAL?

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

### LKS2 Working Scientifically

Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

### UKS2 Working Scientifically

Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN 3-16a:** I can differentiate between pure substances and mixtures in common use and can select appropriate physical methods for separating mixtures into their components.

### Introductory Statements: sciences

Apply safety measures and take necessary action to control risk and hazards.

Recognise the impact the sciences make on my life, the lives of others, the environment and on society.

## WALES

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### The Sustainable Earth

3. A comparison of the features and properties of some natural and made materials.
4. The properties of materials relating to their uses.
5. How some materials are formed or produced.

### Skills: Communication

2. Communicate clearly by speech, writing, drawings, diagrams, charts, tables, bar charts, line graphs, videos, and ICT packages, using relevant scientific vocabulary.

### ENQUIRY

#### Planning

7. Recognising any hazards and risks to themselves and others.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 3: Place

Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment.

#### STRAND 4: Change Over Time

Ways in which change occurs over both short and long periods of time in the physical and natural world.

### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.



# 9. WHAT'S IN A FIRE EXTINGUISHER?

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## ENGLAND

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### Y4 States of Matter

Compare and group materials together, according to whether they are solids, liquids or gases.

Observe that some materials change state when they are heated or cooled.

### Y5 Properties and Changes of Materials

Compare and group together everyday materials on the basis of their properties.

Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible.

### LKS2 Working Scientifically

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

### UKS2 Working Scientifically

Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations .

## SCOTLAND

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### Sciences: Materials ~ Properties and Uses of Substances

**SCN2-15a:** By contributing to investigations into familiar changes in substances to produce other substances, I can describe how their characteristics have changed.

### Introductory Statements: sciences

Develop curiosity and understanding of the environment and my place in the living, material and physical world.

Apply safety measures and take necessary action to control risk and hazards.

Recognise the impact the sciences make on my life, the lives of others, the environment and on society.

## WALES

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### The Sustainable Earth

3. The properties of materials relating to their uses.

5. How some materials are formed or produced.

### Skills: Communication

2. Communicate clearly by speech, writing, drawings, diagrams, charts, tables, bar charts, line graphs, videos, and ICT packages, using relevant scientific vocabulary.

### ENQUIRY

#### Planning

7. Recognise any hazards and risks to themselves and others.

#### Developing

1. Use apparatus and equipment correctly and safely.

2. Make careful observations and accurate measurements, using digital and ICT equipment at times.

#### Reflecting

6. Linking the learning to similar situations, within and outside school.

## NORTHERN IRELAND

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### The World Around Us: Key Stage 2

#### STRAND 3: Place

Ways in which people, plants and animals depend on the features and materials in places and how they adapt to their environment.

#### STRAND 4: Change Over Time

How change is a feature of the human and natural world and may have consequences for our lives and the world around us

ways in which change occurs over both short and long periods of time in the physical and natural world.

#### Progress in Learning: Key Stage 2

Examining and collecting real data and samples from the world around them.

Investigating similarities and differences, patterns and change.