

STEM

Other curriculum links

Topic

Activity

Built to last

Turbulent times

Maths

Skills

1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work

Numeracy Framework

Strand: Developing numerical reasoning

Elements: Identify processes and connections

Learning outcomes

Children will

- transfer maths skills to a variety of contexts
- identify the appropriate steps and information needed to complete a task or reach a solution



History

Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events



Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.



Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.

English

Oracy

Range

Pupils should be given opportunities to develop their oral skills through:

2. experiencing and responding to a variety of stimuli and ideas: visual, audio and written
3. communicating for a range of purposes
5. using a variety of methods to present ideas



STEM

Other curriculum links

Topic

Activity

Built to last

Defence inspector

Maths

Skills



1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work
- appreciate the continuous nature of measures, and that measurement is approximate; estimate measures, and measure to an appropriate degree of accuracy in a range of contexts

Range

Measures and money

Pupils should be given opportunities to:

1. Understand and use measures
 - choose appropriate standard units of length, mass, volume and capacity, temperature, area and time
 - interpret numbers on scales and read scales to an increasing degree of accuracy
 - find perimeters of simple shapes

Numeracy Framework

Strands: Developing numerical reasoning and using measuring skills

Elements: Identify processes and connections. Length, time, area, angle and position

Learning outcomes

Children will

- transfer maths skills to a variety of contexts
- identify the appropriate steps and information needed to complete a task or reach a solution
- estimate and visualise size when measuring and use correct units
- time events in minutes and seconds
- use four/eight compass points to describe direction
- calculate, estimate and compare area
- measure perimeters

ICT

Skills



Find and analyse information

Pupils should be given opportunities to:

2. find information from a variety of sources for a defined purpose
4. produce and use databases to ask and answer questions, e.g. search, sort and graph

Range

Pupils should be given opportunities to:

- use ICT to further their understanding of information they have retrieved and processed
- store and retrieve information they have found or created

STEM


Other curriculum links

Topic

Activity

Built to last




Explosive stuff

Design and Technology 

Skills


Designing

Pupils should be given opportunities to:


1. use a range of information sources to generate ideas for products 
2. investigate how existing products look and function as a source of ideas for their own products
3. develop a simple specification for their products indicating intentions and approach  
5. develop and communicate their design ideas in a variety of ways
7. evaluate their design ideas as they develop, considering the needs of the user.

Making

Pupils should be given opportunities to:

1. work to their specification to make products
2. choose appropriate materials, ingredients, equipment, tools/utensils and techniques, from a range made available to them
3. measure, mark out, cut, shape, join, weigh and mix a range of materials and ingredients, using appropriate tools/utensils, equipment and techniques
4. find alternative ways of making if the first attempt fails
5. apply appropriate finishes to their products
6. discuss their products, and evaluate their work, e.g. explain why and how they made their product and what they think about its function, features, performance, taste 

System and control

13. construct simple mechanisms to produce different types of movement 

Range

Pupils should be given opportunities to develop their design and technology capability through:

- tasks in which they explore and investigate simple products in order to acquire technological knowledge and understanding that can be applied in their designing and making.

They should be given opportunities to:

- be creative
- be innovative
- work independently and in groups

History   

Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events 

Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites. 

Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.

STEM

Other curriculum links

Topic

Activity

Built to last

Mission impossible

Maths



Skills

1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work
- 2. Communicate mathematically

Pupils should be given opportunities to:

- recognise, and generalise in words, patterns that arise in numerical, spatial or practical situations

Range

Measures and money

Pupils should be given opportunities to:

1. Understand and use measures
 - choose appropriate standard units of length and area
 - interpret numbers on scales and read scales to an increasing accuracy; understand and use scale in simple maps and drawings
 - find perimeters of simple shapes, find areas by counting and other practical methods

Shape, position and movement

Pupils should be given opportunities to:

2. Understand and use the properties of position and movement
 - use positive coordinates to specify locations
 - identify properties of position and movement

Numeracy Framework

Strands: Developing numerical reasoning and using measuring skills

Elements: Identify processes and connections. Length, time, area, angle and position

Learning outcomes

Children will

- transfer maths skills to a variety of contexts
- identify the appropriate steps and information needed to complete a task or reach a solution
- use coordinates or grid references to specify locations

Geography



Skills

Locating places, environments and patterns

Pupils should be given opportunities to:

2. follow directions, estimate and calculate distances
3. use maps, imagery and ICT to find and present locational information



History



Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events



Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.



Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.

STEM

Other curriculum links

Topic

Activity

Tools of the trade

Grand design

Design and Technology



Skills

Designing

Pupils should be given opportunities to:

1. use a range of information sources to generate ideas for products
2. investigate how existing products look and function as a source of ideas for their own products
3. develop a simple specification for their products indicating intentions and approach
5. develop and communicate their design ideas in a variety of ways



Rigid and flexible materials

10. use a range of materials and components, making choices based on their developing knowledge of how they should be
12. use techniques for reinforcing and strengthening structures in their products

Range

Pupils should be given opportunities to develop their design and technology capability through:

- tasks in which they design and make products, focusing on different contexts and materials

Maths



Range

Measures and money

Pupils should be given opportunities to:

1. Understand and use measures
 - understand and use scale in simple maps and drawings
 - draw and measure angles
 - find perimeters, areas and volume

Numeracy Framework

Strands: Using measuring skills

Elements: Identify processes and connections. Length, time, area

Learning outcomes

Children will

- measure and calculate perimeters
- measure to the nearest mm

History



Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events



Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.



Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.

STEM

Other curriculum links

Topic

Activity

Tools of the trade

Materials I spy

Science

Skills

Enquiry

Pupils should be given opportunities to carry out different types of enquiry

Developing

Pupils follow the planned approach/method, revise it where necessary, and where appropriate:

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

Range

The sustainable Earth

Pupils should be given opportunities to study:

3. a comparison of the features and properties of some natural and made materials
4. the properties of materials relating to their uses

Maths

Range

Handling data

Pupils should be given opportunities to:

1. Collect, represent and interpret data
 - collect data for a variety of defined purposes, including those that arise from their own questions, and from a variety of sources
 - use and present data in a variety of ways including tables, pictograms, charts, bar charts, line graphs, diagrams, text and ICT

Numeracy Framework

Strands: Using data skills

Elements: Collect and record data. Present and analyse data

Learning outcomes

Children will

- represent data using: lists, tally charts, tables and diagrams

English

Oracy

Range

Pupils should be given opportunities to develop their oral skills through:

2. experiencing and responding to a variety of stimuli and ideas: visual, audio and written
3. communicating for a range of purposes
5. using a variety of methods to present ideas

STEM

Other curriculum links

Topic

Activity

Tools of the trade

Missing

Science

Skills

Communication

Pupils should be given opportunities to:

2. communicate clearly by speech, writing, drawings, diagrams, charts etc, using relevant scientific vocabulary

Enquiry

Pupils should be given opportunities to carry out different types of enquiry

Developing

Pupils follow the planned approach/method, revise it where necessary, and where appropriate:

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

Range

The sustainable Earth

Pupils should be given opportunities to study:

3. a comparison of the features and properties of some natural and made materials
4. the properties of materials relating to their uses



History

Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events

Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.

Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.



STEM

Other curriculum links

Topic

Activity

Tools of the trade

Use the force

Investigate arches

Science

Skills

Communication

Pupils should be given opportunities to:

2. communicate clearly using relevant scientific vocabulary

Enquiry

Pupils should be given opportunities to carry out different types of enquiry

Developing

Pupils follow the planned approach/method, revise it where necessary, and where appropriate:

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

Range

How things work

Pupils should be given opportunities to study:

2. forces of different kinds
3. the ways in which forces can effect movement and how forces can be compared

Design and Technology

Skills

Designing

Pupils should be given opportunities to:

1. use a range of information sources to generate ideas for products
2. investigate how existing products look and function as a source of ideas for their own products

System and control

3. construct simple mechanisms to produce different types of movement

Range

Pupils should be given opportunities to develop their design and technology capability through:

- tasks in which they explore and investigate simple products in order to acquire technological knowledge and understanding that can be applied in their designing and making

They should be given opportunities to:

- be creative
- be innovative
- work independently and in groups



English

Oracy

Range

Pupils should be given opportunities to develop their oral skills through:

2. experiencing and responding to a variety of stimuli and ideas: visual, audio and written
3. communicating for a range of purposes
5. using a variety of methods to present ideas



STEM

Other curriculum links

Topic

Activity

Just the job

All in a day's work

Maths



Skills

1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work

Range

Measure and money

Pupils should be given opportunities to:

1. Understand and use measure
- interpret numbers on scales and read scales to an increasing accuracy; understand and use scale in simple maps and drawings

Shape, position and movement

Pupils should be given opportunities to:

2. Understand and use the properties of position and movement
- use positive coordinates to specify locations
- identify properties of position and movement

Numeracy Framework

Strands: Developing numerical reasoning and using measuring skills

Elements: Identify processes and connections. Area, angle and position

Learning outcomes

Children will

- transfer maths skills to a variety of contexts
- identify the appropriate steps and information needed to complete a task or reach a solution
- use eight compass points to describe direction
- use coordinates or grid references to specify locations

Geography



Skills

Locating places, environments and patterns



Pupils should be given opportunities to:

2. follow directions, estimate and calculate distances, e.g. Follow map and ground routes, calculate map-to-ground distances
3. use maps, imagery and ICT to find and present locational information, e.g. draw sketch maps using symbols and keys. Interpret maps, and photographs including oblique, aerial and satellite images



History



Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events



Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.



Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.

English



Oracy

Range

Pupils should be given opportunities to develop their oral skills through:

2. experiencing and responding to a variety of stimuli and ideas: visual, audio and written
3. communicating for a range of purposes
5. using a variety of methods to present ideas



STEM

Other curriculum links

Topic

Activity

Just the job

Castle careers

Maths

Range

Handling data

Pupils should be given opportunities to:

1. Collect, represent and interpret data
 - collect data for a variety of defined purposes, including those that arise from their own questions, and from a variety of sources
 - use and present data in a variety of ways including tables, pictograms, charts, bar charts, line graphs, diagrams, text and ICT

Numeracy Framework

Strands: Using data skills

Elements: Collect and record data. Present and analyse data

Learning outcomes

Children will

- represent data using:
lists, tally charts, tables and diagrams



ICT

Skills

Find and analyse information

Pupils should be given opportunities to:

1. discuss the purpose of their tasks, the intended audiences and the resources needed
2. find information from a variety of sources for a defined purpose
4. produce and use databases to ask and answer questions, e.g. search, sort and graph

Range

Pupils should be given opportunities to:

- use ICT to further their understanding of information they have retrieved and processed
- store and retrieve information they have found or created

History

Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events

Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.

Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.



STEM

Other curriculum links

Topic

Activity

Just the job

Party planner

Maths

Skills

1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work
- 2. Communicate mathematically

Pupils should be given opportunities to:

- use correct mathematical language, notation, symbols and conventions to talk about or to represent their work to others

Range

Measure and money

Pupils should be given opportunities to:

1. Understand and use money
- know and use the conventional way to record money
find approximate solutions to, and use the four operations to solve, problems involving money

Numeracy Framework

Strands: Developing numerical reasoning and using number skills

Elements: Identify processes and manage money

Learning outcomes

Children will

- manage money, compare costs from different retailers and determine what can be bought within a given budget
- understand what is value for money
- plan and track money and savings by accurate records



ICT

Skills

Find and analyse information

Pupils should be given opportunities to:

1. discuss the purpose of their tasks, the intended audiences and the resources needed
2. find information from a variety of sources for a defined purpose
4. produce and use databases to ask and answer questions, e.g. search, sort and graph

Range

Pupils should be given opportunities to:

- use ICT tools and suitable information sources safely and legally, in accordance with LEA/school guidelines
- use a range of ICT resources and equipment independently and collaboratively
- use ICT sources of information and non-ICT sources of information
- use ICT to further their understanding of information they have retrieved and processed
- store and retrieve information they have found or created

English

Oracy

Range

Pupils should be given opportunities to develop their oral skills through:

2. experiencing and responding to a variety of stimuli and ideas: visual, audio and written
3. communicating for a range of purposes
5. using a variety of methods to present ideas



STEM

Other curriculum links

Topic

Activity

Just the job

Heraldry

Maths



Skills

1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work
- 2. Communicate mathematically

Pupils should be given opportunities to:

- recognise, and generalise in words, patterns that arise in numerical, spatial or practical situations

Shape, position and movement

Pupils should be given opportunities to:

- 1. Understand and use the properties of position and movement
- recognise reflective and rotational symmetries


Art and design



Skills

Understanding

Pupils should be given opportunities to:

- 2. experiment with and examine the methods used by other artists, craftworkers and designers from different:
 - periods 

Investigating



Pupils should be given opportunities to:

- 1. select and record from:
 - observation
 - memory
 - imagination
- 2. investigate:
 - the natural environment
 - the made environment
 - the world of imagination

Range

Understanding

Pupils should be stimulated and inspired, where appropriate, by:

- styles 
- ideas
- local and Welsh art, craft and design
- images and artefacts from a variety of historical and contemporary cultures and contexts 

Investigating

Pupils should investigate:

- natural objects and environments
- made objects and environments
- imagined objects and environments.

They should, where appropriate, apply to their own work findings collected from a variety of contexts including:

- local and Welsh examples
- different cultures and periods.  

Making

Pupils should design and make both imaginatively and expressively

- objects
- artefacts
- images

They should work in different contexts such as:

- outdoors

STEM

Other curriculum links

Topic

Activity

Home sweet home

Go go gadget go




Design and Technology



Skills

Designing

Pupils should be given opportunities to:

1. use a range of information sources to generate ideas for products
2. investigate how existing products look and function as a source of ideas for their own products
3. develop a simple recipe for their products indicating intentions and approach 
5. develop and communicate their design ideas in a variety of ways  
7. evaluate their design ideas as they develop considering the needs of the user

Range

Pupils should be given opportunities to develop their design and technology capability through:

- tasks in which they design and make products, focusing on different contexts and materials

They should be given opportunities to:

- be creative
- be innovative
- work independently and in groups

English



Writing

Skills

Pupils should be given opportunities to communicate in writing and to:

1. use the characteristics features of literary and non-literary texts in their own writing, adapting their style to suit the audience and purpose
4. choose and use appropriate vocabulary

Range

Pupils should be given opportunities to develop their writing skills through:

1. writing for a range of purposes
4. writing in response to a wide range of stimuli: visual, audio and written


History



Skills


Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events 

Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites 

Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.

STEM

Other curriculum links

Topic

Activity

Home sweet home

Castle for sale

Maths

Skills

1. Solve mathematical problems

Pupils should be given opportunities to:

- identify, obtain and process information needed to carry out the work
- appreciate the continuous nature of measures, and that measurement is approximate; estimate measures, and measure to an appropriate degree of accuracy in a range of contexts

Range

Measures and money

Pupils should be given opportunities to:

1. Understand and use measures
 - choose appropriate standard units of length, and area
 - interpret numbers on scales and read scales to an increasing accuracy; understand and use scale in simple maps and drawings
 - find perimeters of simple shapes, find areas by counting and other practical methods

Shape, position and movement

Pupils should be given opportunities to:

2. Understand and use the properties of position and movement
 - use positive coordinates to specify locations

Numeracy Framework

Strands: Developing numerical reasoning and using measuring skills

Elements: Identify processes and connections. Length, time, area, angle and position

Learning outcomes

Children will

- transfer maths skills to a variety of contexts
- identify the appropriate steps and information needed to complete a task or reach a solution
- measure perimeter and area
- use compass points to describe direction
- use coordinates or grid references to specify locations



Geography

Skills

Locating places, environments and patterns

Pupils should be given opportunities to:

1. identify and locate places and environments using globes, atlases, and maps, e.g. use co-ordinates and four-figure references
2. follow directions, estimate and calculate distances, e.g. follow map and ground routes, calculate map-to-ground distances
3. use maps, imagery and ICT to find and present locational information, e.g. draw sketch maps using symbols and keys. Interpret maps, and photographs including oblique, aerial and satellite images



STEM

Other curriculum links

Topic

Activity

Home sweet home

Water watch

Science

Skills

Communication

Pupils should be given opportunities to:

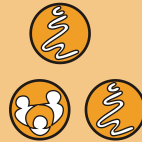
2. communicate clearly by speech, writing, drawings, diagrams, charts etc, using relevant scientific vocabulary

Range

Interdependence of organisms

Pupils should be given opportunities to study:

6. the environmental factors that affect what grows and lives in those two environments, e.g. sunlight, water availability, temperature.
7. how humans affect the local environment, e.g. litter, water pollution, noise pollution.



Geography

Skills

Investigating

Pupils should be given opportunities to:

1. observe and ask questions about a place, environment or a geographical issue

Range

Pupils should be given opportunities to study

- living in Wales: their local area and an investigation of at least one aspect of the geography of the whole of Wales, e.g. castles
- living in other countries: two contrasting localities in countries at different levels of economic development outside the United Kingdom

carry out

- fieldwork to observe and investigate real places and processes



History

Skills

Historical knowledge and understanding

Pupils should be given opportunities to:

1. identify differences between ways of life at different times
3. understand why people did things, what caused specific events and the consequences of those events

Historical enquiry

Pupils should be given opportunities to:

1. ask and answer relevant questions about the past
3. use a range of sources, including buildings and sites.

Range

Pupils should be given opportunities to:

Study

- the daily life of people living in Age of the Princes

Carry out

- investigations into the history around them and into the life of people at different times and places in the past.



Skills across the curriculum



Developing thinking

Learners develop their thinking across the curriculum through the processes of planning, developing and reflecting.



Developing communication

Learners develop their communication skills across the curriculum through the skills of oracy, reading, writing and wider communication.



Developing ICT

Learners develop their ICT skills across the curriculum by finding, developing, creating and presenting information and ideas and by using a wide range of equipment and software.



Developing number

Learners develop their number skills across the curriculum by using mathematical information, calculating, and interpreting and presenting findings.



Cwricwlwm Cymreig (7-14)

Learners aged 7-14 should be given opportunities to develop and apply knowledge and understanding of the cultural, economic, environmental, historical and linguistic characteristics of Wales.



Personal and social education

Learners should be given opportunities to promote their health and emotional well-being and moral and spiritual development; to become active citizens and promote sustainable development and global citizenship; and to prepare for lifelong learning.



Careers and the world of work

Learners aged 11-19 should be given opportunities to develop their awareness of careers and the world of work and how their studies contribute to their readiness for a working life.