

Subject: computing
Topic: superheroes
Year Group/ Cycle: Reception

| Skills Revisited | Topic |
|---|-------|
| | EYFS |
| Knowledge Revisited | |
| | |
| Skills | |
| Learns new vocabulary Makes comments about what he or she has heard and ask questions his/her understanding Offers explanations for why things might happen, making use of recently used vocabulary Begin to use his or her small motor skills so they can use a range of tools Explore use of technology - use a simple program to design a superhero badge. | |
| Knowledge | |
| Vocabulary - program | |

Subject: computing
Topic: superheroes
Year Group/ Cycle: Reception

| Skills Revisited | Topic |
|--|-------|
| | EYFS |
| Knowledge Revisited | |
| | |
| Skills | |
| Learns new vocabulary Makes comments about what he or she has heard and ask questions his/her understanding Offers explanations for why things might happen, making use of recently used vocabulary Begin to use his or her small motor skills so they can use a range of tools Uses ICT hardware to interact with age appropriate computer software | |
| Knowledge | |
| Computing vocabulary - computer, device, software, i pad, app, beep bots, etc | |

Computing Subject Progression Document

Subject: Algorithms and programming

Topic: Blast off

Year Group/ Cycle: 1-2 A

| Skills Revisited | Topic |
|--|---|
| <p>Makes comments about what he or she has heard and ask questions his/her understanding</p> <p>Begin to use his or her small motor skills so they can use a range of tools</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Explore use of technology - use a simple program to design a superhero badge.</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Knowledge Revisited | |
| <p>Learns new vocabulary</p> <p>Offers explanations for why things might happen, making use of recently used vocabulary</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Skills | |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> | |
| Knowledge | |
| <p>recognise common uses of information technology beyond school</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| Revisited from Cycle B | Topic |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> | <p>Happy Holidays</p> |

Computing Subject Progression Document

Subject: programming and safety

Topic: Fire of london

Year Group/ Cycle: 1 and 2 A

| Skills Revisited | Topic |
|---|---|
| <p>Makes comments about what he or she has heard and ask questions his/her understanding</p> <p>Begin to use his or her small motor skills so they can use a range of tools</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Explore use of technology - use a simple program to design a superhero badge.</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Knowledge Revisited | |
| <p>Learns new vocabulary</p> <p>Offers explanations for why things might happen, making use of recently used vocabulary</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Skills | |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> | |
| Knowledge | |
| <p>recognise common uses of information technology beyond school</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| Revisited from Cycle B | Topic |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>recognise common uses of information technology beyond school</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | <p>Explorers</p> |

Computing Subject Progression Document

Subject: searching and writing

Topic: Africa

Year Group/ Cycle: 1 and 2 A

| Skills Revisited | Topic |
|--|---|
| <p>Makes comments about what he or she has heard and ask questions his/her understanding</p> <p>Begin to use his or her small motor skills so they can use a range of tools</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Explore use of technology - use a simple program to design a superhero badge.</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Knowledge Revisited | |
| <p>Learns new vocabulary</p> <p>Offers explanations for why things might happen, making use of recently used vocabulary</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Skills | |
| <p>use technology safely and respectfully</p> <p>use logical reasoning to predict the behaviour of simple programs</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> | |
| Knowledge | |
| <p>recognise common uses of information technology beyond school</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| Revisited from Cycle B | Topic |
| <p>use technology safely and respectfully</p> <p>use logical reasoning to predict the behaviour of simple programs</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>recognise common uses of information technology beyond school</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | <p>Growing</p> |

Computing Subject Progression Document

Subject: programming

Topic: Greeks and Romans

Year Group/ Cycle: 3 and 4 A

| Skills Revisited | Topic |
|--|--------------------------|
| use technology safely and respectfully create and debug simple programs use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content | Happy holidays |
| Knowledge Revisited | |
| recognise common uses of information technology beyond school understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | Happy holidays |
| Skills | |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information and responsibly; use technology safely, respectfully | |
| Knowledge | |
| recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact | |
| Revisited from Cycle B | Topic |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output | Marvellous Mexico |

use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information and responsibly;

recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

use technology safely, respectfully

Computing Subject Progression Document

Subject: algorithms and safety

Topic: Journey along the Mediterranean

Year Group/ Cycle: 3 and 4 A

| Skills Revisited | Topic |
|---|-----------------|
| keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. recognise common uses of information technology beyond school | All yr 1 topics |
| Knowledge Revisited | |
| understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions use technology safely and respectfully, | All yr 1 topics |
| Skills | |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | |
| Knowledge | |
| understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle B | Topic |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output | The stone age |

| | |
|--|--|
| <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly</p> <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | |
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Computing Subject Progression Document

Subject: connect

Topic: The Empire

Year Group/ Cycle: 3 and 4 A

| Skills Revisited | Topic |
|---|--|
| keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | All yr 1 and 2 topics |
| Knowledge Revisited | |
| use technology safely and respectfully, | All yr 1 and 2 topics |
| Skills | |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | |
| Knowledge | |
| recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle B | Topic |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | Wonderful West Country Bristol and environmental change |

Computing Subject Progression Document

Subject: programming, algorithms and safety

Topic: Vikings and Anglo Saxons

Year Group/ Cycle: 5 and 6 A

| Skills Revisited | Topic |
|---|------------------------------|
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly</p> | <p>All yr 3 and 4 topics</p> |
| Knowledge Revisited | |
| <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>All yr 3 and 4 topics</p> |
| Skills | |
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly;</p> | |
| Knowledge | |

recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Revisited from Cycle B

Topic

design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
use sequence, selection, and repetition in programs; work with variables and various forms of input and output
use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
use technology safely, respectfully and responsibly;

China

Computing Subject Progression Document

Subject: web design and net working

Topic: The American dream?

Year Group/ Cycle: 5 and 6 A

| Skills Revisited | Topic |
|--|----------------------|
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | All yr 3 and 4 units |
| Knowledge Revisited | |
| recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Skills | |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; | |
| Knowledge | |
| Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle B | Topic |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the | cycles |

| | |
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| opportunities they offer for communication and collaboration recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
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Computing Subject Progression Document

Subject: programming and apps

Topic: Evolution and Inheritance

Year Group/ Cycle: 5 and 6 A

| Skills Revisited | Topic |
|---|----------------------|
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information and responsibly;</p> <p>use technology safely, respectfully</p> | All yr 3 and 4 units |
| Knowledge Revisited | |
| <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p> | All yr 3 and 4 units |
| Skills | |
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly;</p> | |
| Knowledge | |
| <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | |

| Revisited from Cycle B | Topic |
|---|---------------------|
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly;</p> <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>Benin</p> |

Computing Subject Progression Document

Subject: Algorithms and programming

Topic: Happy Holidays

Year Group/ Cycle: 1-2 B

| Skills Revisited | Topic |
|--|---|
| <p>Makes comments about what he or she has heard and ask questions his/her understanding</p> <p>Begin to use his or her small motor skills so they can use a range of tools</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Explore use of technology - use a simple program to design a superhero badge.</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Knowledge Revisited | |
| <p>Learns new vocabulary</p> <p>Offers explanations for why things might happen, making use of recently used vocabulary</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Skills | |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> | |
| Knowledge | |
| <p>recognise common uses of information technology beyond school</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| Revisited from Cycle A | Topic |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> | <p>Blast off</p> |

Computing Subject Progression Document

Subject: programming and safety

Topic: Explorers

Year Group/ Cycle: 1 and 2 B

| Skills Revisited | Topic |
|---|---|
| <p>Makes comments about what he or she has heard and ask questions his/her understanding</p> <p>Begin to use his or her small motor skills so they can use a range of tools</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Explore use of technology - use a simple program to design a superhero badge.</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Knowledge Revisited | |
| <p>Learns new vocabulary</p> <p>Offers explanations for why things might happen, making use of recently used vocabulary</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Skills | |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> | |
| Knowledge | |
| <p>recognise common uses of information technology beyond school</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| Revisited from Cycle A | Topic |
| <p>use technology safely and respectfully</p> <p>create and debug simple programs</p> <p>use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>recognise common uses of information technology beyond school</p> <p>understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | <p>Fire of london</p> |

Computing Subject Progression Document

Subject: searching and writing

Topic: Growing

Year Group/ Cycle: 1 and 2 B

| Skills Revisited | Topic |
|--|---|
| <p>Makes comments about what he or she has heard and ask questions his/her understanding</p> <p>Begin to use his or her small motor skills so they can use a range of tools</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Explore use of technology - use a simple program to design a superhero badge.</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Knowledge Revisited | |
| <p>Learns new vocabulary</p> <p>Offers explanations for why things might happen, making use of recently used vocabulary</p> | <p>R Beep Beep</p> <p>R superheroes</p> |
| Skills | |
| <p>use technology safely and respectfully</p> <p>use logical reasoning to predict the behaviour of simple programs</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> | |
| Knowledge | |
| <p>recognise common uses of information technology beyond school</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | |
| Revisited from Cycle A | Topic |
| <p>use technology safely and respectfully</p> <p>use logical reasoning to predict the behaviour of simple programs</p> <p>use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>recognise common uses of information technology beyond school</p> <p>keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p> | <p>Africa</p> |

Computing Subject Progression Document

Subject: programming

Topic: Marvellous Mexico

Year Group/ Cycle: 3 and 4 B

| Skills Revisited | Topic |
|--|--------------------------|
| use technology safely and respectfully create and debug simple programs use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content | Happy holidays |
| Knowledge Revisited | |
| recognise common uses of information technology beyond school understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | Happy holidays |
| Skills | |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information and responsibly; use technology safely, respectfully | |
| Knowledge | |
| recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact | |
| Revisited from Cycle A | Topic |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output | Greeks and Romans |

use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information and responsibly;

recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

use technology safely, respectfully

Computing Subject Progression Document

Subject: algorithms and safety

Topic: Life in the Stone Age

Year Group/ Cycle: 3 and 4 B

| Skills Revisited | Topic |
|---|--|
| keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. recognise common uses of information technology beyond school | All yr 1 topics |
| Knowledge Revisited | |
| understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions use technology safely and respectfully, | All yr 1 topics |
| Skills | |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | |
| Knowledge | |
| understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle A | Topic |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output | Journey along the Mediterranean |

| | |
|--|--|
| <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly</p> <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | |
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Computing Subject Progression Document

Subject: algorithms and safety

Topic: Life in the Stone Age

Year Group/ Cycle: 3 and 4 B

| Skills Revisited | Topic |
|---|--|
| keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. recognise common uses of information technology beyond school | All yr 1 topics |
| Knowledge Revisited | |
| understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions use technology safely and respectfully, | All yr 1 topics |
| Skills | |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | |
| Knowledge | |
| understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle A | Topic |
| design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with | Journey along the Mediterranean |

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| <p>variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly</p> <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | |
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Computing Subject Progression Document

Subject:connect

Topic:Wonderful West Country Bristol and environmental change

Year Group/ Cycle: 3 and 4 B

| Skills Revisited | Topic |
|---|-----------------------|
| keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. | All yr 1 and 2 topics |
| Knowledge Revisited | |
| use technology safely and respectfully, | All yr 1 and 2 topics |
| Skills | |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | |
| Knowledge | |
| recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle A | Topic |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | The Empire |

Computing Subject Progression Document

Subject: programming, algorithms and safety

Topic: China

Year Group/ Cycle: 5 and 6 B

| Skills Revisited | Topic |
|---|------------------------------|
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly</p> | <p>All yr 3 and 4 topics</p> |
| Knowledge Revisited | |
| <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>Recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>All yr 3 and 4 topics</p> |
| Skills | |
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly;</p> | |
| Knowledge | |
| <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns</p> | |

| about content and contact. | |
|---|--|
| Revisited from Cycle A | Topic |
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>use technology safely, respectfully and responsibly;</p> | <p>Vikings and Anglo Saxons</p> |

Computing Subject Progression Document

Subject: web design and net working

Topic: cycles

Year Group/ Cycle: 5 and 6 B

| Skills Revisited | Topic |
|--|----------------------------|
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly | All yr 3 and 4 units |
| Knowledge Revisited | |
| recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Skills | |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; | |
| Knowledge | |
| Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. | |
| Revisited from Cycle ____ | Topic |
| use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use technology safely, respectfully and responsibly; | The American dream? |

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| <p>Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | |
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Computing Subject Progression Document

Subject: programming and apps

Topic: Benin

Year Group/ Cycle: 5 and 6 B

| Skills Revisited | Topic |
|---|-----------------------------|
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information and responsibly;</p> <p>use technology safely, respectfully</p> | <p>All yr 3 and 4 units</p> |
| Knowledge Revisited | |
| <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</p> | <p>All yr 3 and 4 units</p> |
| Skills | |
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly;</p> | |
| Knowledge | |
| <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns</p> | |

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| about content and contact. | |
| Revisited from Cycle A | Topic |
| <p>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</p> <p>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</p> <p>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p> <p>use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p> <p>select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</p> <p>use technology safely, respectfully and responsibly;</p> <p>understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</p> <p>recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> | <p>Evolution and Inheritance</p> |