First Principles for the Curriculum at CPS

First Principles:

Content

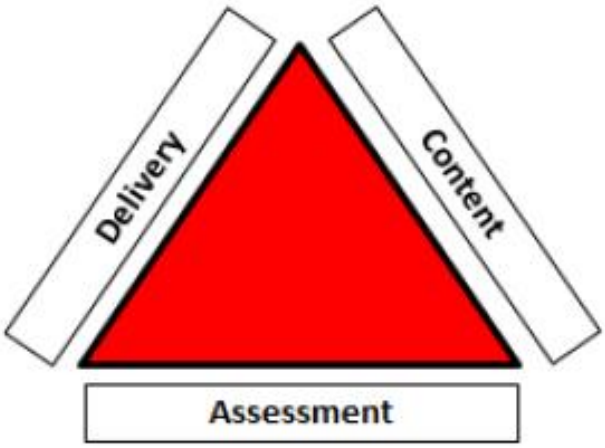
The *CPS Curriculum Map* will provide for each domain a cohesive and coherent pathway through the school. This will be designed to ensure that the essential facts, concepts, connections and techniques necessary to have a true foundation within the subject discipline, are taught and retained by the children, and which ensure that the children arrive at the defined 'Intended Outcome Statements' for each subject by the end of KS2.

Delivery

We will only use evidence-based teaching techniques that are rooted in the principles of cognitive-load theory. We passionately believe in equity of opportunity and equity of provision and we are committed to ensuring that we meet these aims, and never lower our expectations about what passes for high quality teaching at CPS.

Assessment

We will have clear definitions of what success for children within a domain looks like. We will ensure all teachers are well positioned to answer the question: have the children learned what we have taught them? To answer this, and to help us to understand the efficacy of the CPS curriculum, we will use a range of indicators, which will provide both the quantities and qualities that our curriculum yields.



Commentary

The CPS curriculum sets out to ensure that all children are equipped with the powerful knowledge that we feel it is their entitlement to know. Across the range of subject domains, children are taught the facts, concepts, techniques and specific characteristics of each subject.

The *CPS Curriculum Map* details the logical and progressive route through the school. It is designed to ensure that after seven years at CPS, the children are superbly equipped for the next stage of their education; having acquired and retained a broad suite of knowledge - as well as developing the key

virtues and characteristics we believe they need to help them successfully negotiate the vicissitudes of life.

For each domain there is a coherent pathway through the school. This is designed to ensure that the essential facts, concepts, connections and techniques necessary to have a true foundation within the subject discipline, are taught and retained by the children.

In order to share expertise and domain-specific knowledge across our primary school, each teacher is a 'Curriculum Coordinator' for a domain in which they have a specialism or a keen interest. As such, the Curriculum Coordinators at CPS are the architects of the curriculum journey for their own domain across the school.

In designing this journey, Curriculum Coordinators have considered any national curriculum requirements for their subject, as well as the substantive and disciplinary knowledge identified as being essential if children are to stand a chance of mastering a subject as their move forwards in education.

Consequently, the Curriculum Coordinators have a clearly defined picture of what success looks like for a child within their subject, and are very well positioned to support colleagues in answering the question: have the children learned what we have taught them?

To answer this, and to help us to understand the efficacy of the CPS curriculum, we use a range of indicators, which provide both the quantities and qualities that we expect our children to achieve.

This evidence suite will include:

- The information available at point of delivery through pupils' responses and the work produced. Through the intentionality of the planning at CPS, and the agreed teaching approaches (including the use of the *TLAC* techniques of Doug Lemov), there is an enhanced focus on the immediacy and accuracy of any diagnostic, formative assessment.
- The learning journeys within a child's work – across units and through the school. These will reflect the school's emphasis on the developing the frequency, volume and sophistication of a child's written work; allowing them to write with purpose - cognisant of the conventions for specific domains, and increasingly able to draw conclusions, make links and synthesize explanations within and across domains. Consequently, direct comparisons of pieces of a child's writing from throughout the year will provide a powerful source of evidence for the progress they have made. To ensure this, a range of tactics will be employed, such as *Because, But and Therefore* writing tasks, and essays which answer framed questions (eg., 'Did the Industrial Revolution benefit all members of Victorian society?')
- Use of cold and hot tasks at the beginning and end of a specific unit.
- A range of opportunities within and outside of school, where pupils can showcase their emerging proficiency and developing knowledge across a number of domains; including exhibiting art work, music performances and PE competitions.
- End of unit tests and multiple-choice quizzes for History, Geography and Science. These will seek to test the amount of substantive knowledge a child has retained by the end of the unit. Outcomes will be used diagnostically, to help identify areas where children have either successfully retained understanding, or where they have struggled; and to potentially compare the performance of individual children and groups of pupils, where appropriate.
- CPS outcomes in the statutory national reporting stages.
- In-school pupil performance information for reading (PIRA), writing (TA) and mathematics (PUMA).
- The school will continue to consider and trial additional opportunities for evidence of impact – including relevant information from current resources (such as *Times Tables Rock Stars*); and the use of pupil questionnaires and other methods of pupil feedback.

Intended Outcomes across the CPS Curriculum

The *CPS Curriculum Map* defines the journey that children will experience across their seven years of at the school.

It has been designed to provide children with a secure grounding within each domain, which we feel will ensure that they can move forwards into secondary education secure in their understanding of certain essential facts and principles about the subject (what is termed the substantive knowledge).

We also strive to ensure that children will be aware of the 'rules' and features of a subject that govern how the subject content should be taught, retained, considered and applied (what is termed the disciplinary knowledge).

Our teaching across the school will aim to ensure equity of opportunity and provision: inspiring children with the awe and wonder of the world around them, and the fact that knowledge can be constantly reviewed, discussed, challenged and applied, however they see fit.

It will also ensure that the statutory obligations that we have under the national curriculum are met.

Art

- By the end of Year 6, we will expect children to understand the substantive knowledge related to the life and work of specific artists, such as: Jackson Pollock, Pieter Breughel, Berthe Morisot, Christopher Wren, Angie Lewin, Frida Kahlo, Pablo Picasso, John Constable, Georgia O'Keeffe, Andy Warhol, Auguste Rodin, Wassily Kandinsky.
- As well as this, the children will acquire substantive knowledge regarding a range of art movements and styles and how art relates to cultures, civilisations and historical contexts.
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates art from other domains, such as:
    - the notion that art is a product of its time and place, and how history, culture and personal experience plays a role in the creation of art and the development of art movements
    - the practical skills and techniques involved in creating works of art. Children will develop their skill and confidence by practising and mastering various art techniques. By the time they reach Year 6, children will be confident in the use of a wide range of media.
- Children will have had the opportunity to create individual work, expressing their ideas and developing a style of their own. They will also be able to analyse and evaluate their own pieces and those of others (including the artists they have learnt about), using subject specific vocabulary.

Computing

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
    - the design and debugging of programming
    - the various forms of input and output within programmes
    - the use of logical reasoning to explain algorithms
    - the detection of errors in algorithms
    - the relationships between sensible use of the Internet and the opportunities it provides
    - the effective use of search technologies
    - the selection and combination of software for effective purposes
    - safe and responsible use of technology.
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates computing from other domains. This will include:

- the principles of safe usage
- making educated justifications of using programmes to produce the most effective output
- learning to generate effective searches efficiently to enhance their substantive knowledge
- developing the confidence and creativity to design their own algorithms
- developing the skills to systematically identify and debug algorithms they are presented with or have previously made.

Design Technology

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
  - building and strengthening structures
  - use and understanding of mechanisms and electrical systems
  - properties of materials (including textiles) and nutrition
  - reviewing and reflecting upon past and present designs and use up to date methods to explore and innovate their ideas, developing imaginative and practical ways to solve given problems
  - key designers of our time and the importance of innovation with regards to environmental impact and resources
  - how key principles of DT support the teaching of other domains (including Science, Art and History).
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates DT from other domains. This will include:
  - the principles of critiquing, evaluating and testing their ideas demonstrating a reflective approach to the use of resources and tools. This will be both practical and hypothetical, using developing skills in understanding material and tool use and computer technology
  - gaining an understanding of other cultures and needs though the design process and evaluate and review the work of others
  - designing simple, nutritious dishes and know how these should be cooked, using tools appropriately and competently.

English

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins: spoken language, reading (decoding and comprehension) and writing (transcription and composition).
- During their study of this subject, the children will be exposed to the disciplinary knowledge that places English in a pre-eminent position in our curriculum. Children will demonstrate the ability to:
  - read easily, fluently and with good understanding
  - develop the habit of reading widely and often, for both pleasure and information
  - acquire a wide vocabulary, an understanding of grammar and knowledge of linguistic conventions for reading, writing and spoken language
  - appreciate our rich and varied literary heritage
  - write clearly, accurately and coherently: adapting their language and style in and for a range of contexts, purposes and audiences
  - use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas
  - become competent in the arts of speaking and listening, making formal presentations, demonstrating to others and participating in debate

  In addition, children will be expected to write frequently and with increasing volume and sophistication.

French

- By the end of year 6, we will expect children to understand the substantive knowledge that underpins the communication of ideas, facts, and feelings, through an explicit focus on:
    - the automatized knowledge of the French phonic system
    - a strong, basic vocabulary, not necessarily topic bound, but covering a range of frequently occurring lexical items, including a good number of common verbs
    - a range of basic grammatical features, including the present tense forms of common irregular verbs, such as be, have, go and do; and the conjugation of regular 'er' verbs
- During their study of French, children will be exposed to the disciplinary knowledge that demarcates languages from other domains. This includes recognising:
    - the syntax and semantics of language
    - the grammatical complexities
    - the key phoneme grapheme correspondence
    - vocabulary; including idioms and colloquialisms
    - any relationships or connections between language 'families'

Geography

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
    - diverse places, people, and resources
    - natural and human environments
    - the Earth's key physical and human processes.
    - localities of Cottenham, Ely (including the Fens) and Cambridge.
    - regions of the UK.
    - the continents and oceans of the world
    - countries and their capital cities; particularly focusing on those within Europe (Italy and Scandinavia), North and South America and Australia.
    - the key aspects of physical geography, including climate zones, biomes, vegetation belts, rivers and basins, mountains, volcanoes, earthquakes and the water cycle.
    - key features of human geography, including population, settlement and land use, economic activity - including trade and the distribution of natural resources.
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates geography from other domains. This will include:
    - the principles of geographical skills and fieldwork
    - contextual knowledge of the location of globally significant places
    - how key physical and human processes interact to effect the ever changing landscapes of the world.
    - how to collect and analyse data through fieldwork
    - how to interpret a range of sources
    - how to communicate their findings using Tier 3 vocabulary.
- The children will also develop their ability to identify and explain links with other subject areas as they identify the geographical changes over time and how this has shaped the world around them.

History

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
    - pre-history
    - Ancient Civilisations of the world
    - a chronological understanding of key periods in British History including within our local area

- important events in British and World History e.g. The Great Fire of London and The American Revolution
- the development of Parliament, Monarchy and Democracy.

- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates history from other domains. This will include developing an understanding of:
  - historical debate and the ability to present a balanced argument through the use of reliable historical sources
  - the impact of bias
  - the motivation behind, and impact of, certain decisions in history
  - the cause and effect of specific historical events
  - links between key historical events
  - individuals who have shaped British and World history.

Mathematics

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following in relation to number:
  - place value, counting, addition and subtraction, multiplication and division and algebra, fractions, decimals and percentages.
- They will also have substantive knowledge of 2D and 3D shapes, position and direction, measure and statistics
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates Maths from other domains. They will demonstrate mastery of these areas through their fluency.
- In addition they will be able to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations and developing an argument, justification or proof using mathematical language.
- They will also be able to solve problems with increasing sophistication including breaking down problems into a series of simple steps and persevering in seeking solutions.

Music

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
  - musical notation
  - instruments of the orchestra
  - choral voice types
  - key musical terms
  - musical structures and key theoretical elements of music such as dynamics, pitch, texture, timbre and tempo
  - characteristics of periods of music and the significant composers within them.
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates music from other domains. This will include:
  - understanding the purpose of music
  - the identification of key themes and comparisons between pieces of music and between periods of musical history
  - the ability to listen, appreciate and appraise musical pieces and express informed opinions
  - using their understanding of the theory of music to create and perform pieces of music
  - explaining how historical events, culture and the evolution of instruments have influenced and shaped the development of music over time.

Physical Education (PE)

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
    - running, jumping, throwing and catching in isolation and in combination
    - playing competitive games (or simplified versions) of basketball, cricket, football, hocky, netball, rounders and tennis; and applying basic principles suitable for attacking and defending
    - developing flexibility, strength, technique, control and balance through multi-skills, circuits, athletics and gymnastics activities
    - dance performances, using a range of movement patterns
    - taking part in outdoor and adventurous activity challenges; both individually and within a team
    - comparing their performances with previous ones and demonstrating improvements to achieve a personal best.
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates PE from other domains. This will include the principles of:
    - developing the personal competence to excel in a broad range of physical activities
    - being physically active for sustained periods of time and understanding the positive impact of this
    - taking opportunities to engage in competitive sports and activities, representing the school as appropriate
    - lead healthy, active lives in and out of school.

PSHE

- PSHE is not simply '*teaching about*' (what is known as the Substantive Knowledge) it is '*teaching how to manage*' (what is termed the 'Disciplinary Knowledge') moments and situations in life.
- PSHE at CPS is based around 3 core themes grounded in the real life experiences of the pupils.
    1) Health and wellbeing
    2) Relationships
    3) Living in the wider world
- By the end of Year 6, we will expect children to understand the following:
    - emotional competency
    - diversity and communities
    - health and wellbeing,
    - sex and relationships
    - financial capability
    - social justice and moral responsibility
    - E-safety and bullying.
- Through the PSHE curriculum we intend to enable children to realise the impact of their own choices and behaviour and use this to make informed decisions (including about the trusted adults in their lives, who they can seek out for support and advice).
- The PSHE curriculum at CPS also underpins the promotion of virtues and characteristics that are explicitly covered in weekly assemblies and the Year 6 SHINE programme, and which contribute to ensuring all members of the CPS community align with its special culture.

Religious Education

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
    - understanding the foundation knowledge of the six major world religions and Humanism
    - developing a greater depth of knowledge of Christianity including different denominations and the Christian calendar
    - knowing the major festivals of these religions

- considering the importance of religious buildings and how they vary
- appreciating the significance of religious artefacts and the role they play
- learning stories from across religions and consider the messages they are conveying and be aware of reoccurring themes across religions, such as light and colour.

- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates RE from other domains. This will include:
  - understanding and evaluating the diversity of belief in different religions, both nationally and globally
  - making connections between different beliefs and practices of all religions
  - articulating and applying the different responses to ethical questions from a range of different religions
  - both in debate and essay form
  - Considering the links between RE and other subject domains.

Science

- By the end of Year 6, we will expect children to understand the substantive knowledge that underpins the following:
  - states of matter
  - atomic structure
  - organisation of the Periodic Table
  - human circulation, respiration, digestion, and reproduction
  - classification
  - the life cycles of living organisms
  - plants and their structures
  - inter-relationships between living organisms and their environment
  - magnetic forces
  - electricity (including circuits, the concepts of charge and voltage)
  - light (including the behaviour of light and the colour spectrum)
  - the properties of sound
  - the structure of the Universe (including the role of gravity and the Solar System)
  - the understanding of planet Earth (geology and meteorology).
- During their study of this knowledge, the children will be exposed to the disciplinary knowledge that demarcates science from other domains. This will include the principles of scientific methodology – the identification of appropriate hypotheses and consequently exploring all relevant variables, and the changing of just the one that is being investigated.
- From this, children should be able to synthesize explanations through reliable evidence; and the fact that science is an ever-changing discipline: through constant research, humans are able to learn more about the universe, as well as our own planet and all living things.
- They will also learn about some of the scientists who have shaped history – as well as the concepts they discovered or attempted to explain.