Policy on Thinking Skills

Our Motto: Aim High, Learn Together, Feel Proud!

At Westbrook Primary School we believe in children being critical thinkers who have the confidence and skills to ask questions and find answers independently. Thinking is at the heart of our curriculum and we take a whole school approach to the teaching of thinking. This means that thinking becomes central and explicit. All teachers and pupils develop a common thinking language and toolbox.

We have identified and selected specific thinking tools which can be used across the curriculum. Pupils will develop an understanding of how they think and be able to articulate how they think.

Six Thinking Hats: Strengthen Collaboration Skills

A Tool for Productive Critical & Creative Thinking

Six Thinking Hats is a time-tested, proven and practical thinking tool. It provides a framework to help people think clearly and thoroughly by directing their thinking attention in one direction at a time--white hat facts, green hat creativity, yellow hat benefits, black cautions, red hat feelings, and blue hat process. Dr. de Bono wrote this international bestselling book in 1985.

It's a simple mental metaphor. Hats are easy to put on and to take off. Each hat is a different colour which signals the thinking ingredient. In a group setting each member thinks using the same thinking hat, at the same time, on the same thinking challenge—we call this focused parallel thinking--a tool that facilitates creativity and collaboration. It enables each person's unique point of view to be included and considered. Argument and endless discussion become a thing of the past. Thinking becomes more thorough.

The Six Thinking Hats Tool Kit

Blue Hat Thinking- Process

- Thinking about thinking
- What thinking is needed?
- Organizing the thinking
- Planning for action

White Hat Thinking- Facts

- Information and data
- Neutral and objective
- What do I know?
- What do I need to find out?
- How will I get the information I need?

Green Hat Thinking - Creativity

- Ideas, alternative, possibilities
- Provocation - "PO"
- Solutions to black hat problems

Yellow Hat Thinking- Benefits

- Positives, plus points
- Logical reasons are given.
- Why an idea is useful

Black Hat Thinking - Cautions

- Difficulties, weaknesses, dangers
- Logical reasons are given.
- Spotting the risks

Red Hat Thinking - Feelings

- Intuition, hunches, gut instinct
- My feelings right now.
- Feelings can change.
- No reasons are given.

Introduction of the hats

Early Years – Black, Yellow, Green

Year 1 – Red, Yellow, Black, Green

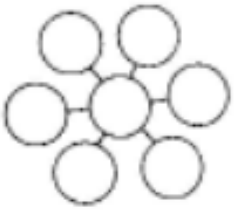
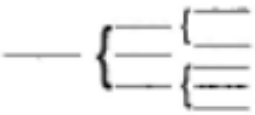
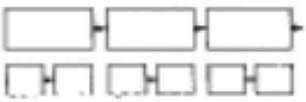
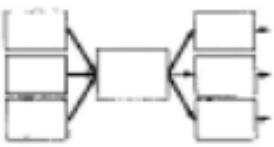
Year 2 Upwards – All Hats.

The hats will be introduced during circle time and reading sessions. They will also be incorporated into assemblies and other lessons where they naturally fit. Teachers and LSA's will incorporate them into lesson plans and activities whenever opportunities arise.

Thinking Maps

Thinking Maps are consistent visual patterns linked directly to eight specific thought processes. Each one is based on a fundamental thinking process and is used as a set of tools for showing relationships. By visualizing our thinking, we create concrete images of abstract thoughts. These patterns help our children reach higher levels of critical and creative thinking.

Each of the eight individual Maps relates to a single thinking process: defining, describing, comparing or contrasting, sequencing, deconstructing, categorising, identifying cause and effect, and establishing relationships between things.

Questions from Texts, Teachers and Tests	Thinking Processes	Thinking Maps as Tools
How are you defining this thing or idea? What is the context? What is your frame of reference?	**DEFINING IN CONTEXT**	Circle Map 
How are you describing this thing? Which adjectives would best describe this thing?	**DESCRIBING QUALITIES**	Bubble Map 
What are the similar and different qualities of these things? Which qualities do you value most? Why?	**COMPARING and CONTRASTING**	Double Bubble Map 
What are the main ideas, supporting ideas, and details in this information?	**CLASSIFYING**	Tree Map 
What are the component parts and subparts of this whole physical object?	**PART-WHOLE**	Brace Map 
What happened? What is the sequence of events? What are the substages?	**SEQUENCING**	Flow Map 
What are the causes and effects of this event? What might happen next?	**CAUSE and EFFECT**	Multi-Flow Map 
What is the analogy being used? What is the guiding metaphor?	**SEEING ANALOGIES**	Bridge Map 

1-9

Progression of Thinking Maps across the school

Nursery – Circle + Bubble
Reception – Circle + Bubble + Double Bubble
Yr1 – Circle + Bubble + Double Bubble + Tree + Flow
Yr2 – All Maps
KS2 – All Maps

Bloom's Taxonomy

Bloom's taxonomy is a cognitive model explaining the levels of thinking seen as important to the process of learning.It takes pupils through a thought process of analyzing information or knowledge critically. Bloom's taxonomy begins with knowledge/memory and slowly pushes students to seek more information based upon a series of levels of questions and keywords that brings out an action on the part of the pupil.At Westbrook Primary we consider the academic subjects in the light of Bloom's Taxonomy so that we get the deepest and most beneficial learning from the subject areas.

Each level of Bloom's taxonomy is explained as follows:

Remembering: The Remembering level of Bloom's Taxonomy includes questions that involve who, what, where, when, why and which. This level of questioning demands the lowest level of thinking in children; they are simply recalling basic facts about a text.

Understanding: The Understanding level is slightly more complex than simply recalling information; it requires learners to demonstrate a level of comprehension or understanding of the text. At this level, children are asked to explain, infer, classify or summarise.

Applying: At the Applying level, learners are asked to use what they have learned in a new way. At this level, children may be asked to solve a problem, construct their own ideas or experiment.

Analysing: At the Analysing level, learners have to find evidence in the text to support or justify their opinions. This requires children to be able to break the text down through categorising and ordering ideas.

Evaluating: By the time learners reach the Evaluating level, this places high demands on children in terms of critical thinking skills. Children are asked to make decisions about the text based on a set of criteria, to prove or disprove, to justify or to give an opinion.

Creating: The highest order thinking skill is the Creating level. Here, children are challenged to organize information in a new or unique way. They are asked to design or construct their own questions about the text, to invent new possibilities and solutions about the text, to debate and create reflective

Growth Mindset

Rationale:

The research of Carol Dweck, a Professor of Psychology at Stanford University, has shown that people who believe that their intelligence can be developed (thus demonstrating a growth mindset) outperform those who believe their intelligence is fixed (fixed mindset).It has been found that by focusing on the process which leads to learning (such as concentrating, persevering and learning from mistakes), we can foster a growth mindset in our children. Approaches to learning which involve meta-cognition, consistently have shown high levels of impact. Pupils embrace challenges, persist through obstacles, learn from criticism and seek out inspiration in others' success.

Aims:

We aim to ensure a consistency of approach across the school, in order to promote a growth mindset culture by our use of language, by modelling and managing behaviour and by organising teaching and learning. This includes the teaching, learning and assessment of learning attitudes, which aim to help us all to think about our learning more explicitly. This meta-cognitive approach teaches pupils specific strategies to set goals, and monitor and evaluate their own development.

What is the difference between a Fixed and Growth Mindset?

Fixed Mindset	Growth Mindset
Intelligence is static.	**Intelligence can be developed.**
Leads to a desire to *look smart* and therefore a tendency to	Leads to a desire to *learn* and therefore a tendency to
• avoid challenges	• embrace challenges
• give up easily due to obstacles	• persist despite obstacles
• see effort as fruitless	• see effort as path to mastery
• ignore useful feedback	• learn from criticism
• be threatened by others' success	• be inspired by others' success

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