



Subject Self Evaluation Form

Subject: Design and Technology

School Context

Katherine Semar Infant and Junior Schools serve an established and settled residential area in Saffron Walden. The socio-economic circumstances of the pupils are better than the average nationally although lower than the other schools in our local cluster. The proportion of pupils eligible for a free school meal is slightly below average although many families are on low incomes and need support through regular food banks and uniform referrals. The majority of parents are supportive but a significant minority have low aspirations and this has an impact on their support for their children's academic progress and on the extent to which they become involved in their children's learning. As a result of this, some of the pupil premium supports these families financially through clubs and educational visits. We have identified that 20% of our pupils have home lives that may negatively affect their school life and sometimes their ability to thrive (adverse childhood experiences). Significant work is completed to support these children through learning mentors and our school listening service as well as more recently employing a family engagement champion, who works with our most vulnerable children on improving attendance. A significant minority of our families live in the flats surrounding schools in overcrowded, damp accommodation without access to a garden.

Unfortunately, we have had a high number of parents within our school community who have died or have been diagnosed with a life limiting condition. Within the last five years, we have had eleven children who have had a parent who has died. We have received support from charities like Winston's wish and our school educational psychologist. Currently we have two children who are supporting a parent cope with multiple sclerosis and we have ten children in last two years whose parent has been diagnosed with cancer. In the infant school, we also have a child whose father is receiving specialist care and hoping that may prolong his life for six months. We have used our school play therapist to support these children and we have two trained learning mentors who have received additional training on grief and bereavement. We have looked at our PSHE curriculum and worked on the zones of regulation as well as work on grief and bereavement to support the children in our school. We have re-designed our curriculum and changed the books in Year Three as we felt 'The Wild Way home' was triggering for the two children whose Mothers have recently died. In Year Two, three of the children can be dysregulated for sustained periods of time and we are continually looking for the best ways to support them with their grief.

The largest ethnic groups are White British (75.98%) and any other white background (16%). Mixed White & Asian (1.44%), Mixed White & Black Caribbean (1.15%). Mixed White & Black African (0.92%), Mixed any other mixed background (2.07%). The percentage of children who are not white British has increased by 6.2% since last year. This school has 12 out of 17 possible ethnic groups. The average number of groups for this phase of education is identified as 9 so we like to celebrate our cultural diversity. Staff retention is very high. This means the shared vision and ethos is well-developed as staff have built this vision with staff team. Monitoring, evaluation and review has happened in a cycle where each subject has a deep dive on a rolling programme which has happened for the past 12 years so experienced subject leaders know their subject's strengths and areas for development well.

The school currently holds:
The Healthy Schools' Enhanced Award
Sports Mark – Platinum Award
Music Mark
Philosophy for children Silver Award

Katherine Semar Infant and Junior Schools are not faith schools but our ethos is broadly Christian. We have close links with St Mary's Church, which is the nearest Anglican Church, as well as the community church and the Baptist church regularly having assemblies from the Saffron Walden assemblies team. Inclusion is a school priority and we welcome and value diversity. We are particularly keen to build on the supportive relationships we have forged with many partners involved with the school. The school focuses on promoting high academic achievement, providing plentiful opportunities for sport and exercise, creative arts and personal development. Promoting good health is a school priority.

Saffron Walden and the local surrounding area does not have any specialist provision locally and consequently we have a number of children with severe and complex needs who are seeking specialist provision. The LA have placed them in our school whilst looking for a specialist setting. In response to this the Trust are looking at providing specialist provision but this is in an early stage of planning.

The infant and junior schools work extremely closely to further enhance the continuity for children and cohesive community provision. The infant and junior school operate as one school, which has been developing since 2011 when Julie Puxley became the headteacher. This has been further enhanced by Julie Puxley becoming executive headteacher in 2017 of the Junior school and infant school as well as the rest of Senior Leadership Team working across both schools. The children have a smooth transition from Year 2 to Year 3 and beyond. There is now a single governing body, policies, procedures and governor training is aligned. We continue to have a joint website and joint weekly newsletter for parents. We have shared co-ordinator posts, enriching subject leadership. Planned, shared staff meetings and training are of a high quality and create continuous professional development for staff. There is a deeper understanding of the progression of learning between key stages and shared assessment methods. The SLT work together daily to enhance provision in classrooms, using staff specialisms. Due to high staff retention the shared vision and ethos is well-developed as staff have built this vision with key stakeholders over a number of years.

Baseline

Expressive Arts

Being Imaginative

Exploring and using Media and Materials

Both aspects, EXS + approx. 66% and 5% GDS

Listening 72% EXS+ Listening 29% GDS

Speaking 67% EXS+ Speaking 17% GDS

Understanding 74% EXS+ Understanding 25% GDS

School Vision

School Values

Our curriculum cannot be separated from our school's core values: be kind, be confident, be curious, be positive, be respectful and be resilient. These permeate all aspects of school life and underpin our school curriculum. Although these are directly taught within our curriculum they are also 'lived' throughout our school and effectively create the culture that allows our curriculum to be successful.

Curriculum Aims

Alongside our school values we have a set of aims for our school curriculum. These are the key threads that underpin and link our children's curriculum experiences together. We want children to: question; challenge themselves and each other; investigate the world around them; experience the world first hand; communicate effectively; and seek to develop their understanding of themselves, each other and the world around them. These aims were developed by and for the school community; parents, teachers, staff and governors collaborated to create our INSPIRE curriculum aims.



Intent

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Specific tasks are designed to encourage children to respond ambitiously showing originality and creativity in response to a stimulus. By drawing upon real life experiences provided by the school to support all children, they combine practical skills with an understanding of aesthetics, social and environmental issues and function. During innovations, children are encouraged to consider possible risks and how to manage them.

High expectations

Our curriculum is designed with the national curriculum as a starting point but as we have extremely high expectations for our children, we have added additional challenge to help develop crucial life skills. These can be seen in the bold objectives in our INSPIRE curriculum.

Implementation

- Each year group will teach the areas of DT identified in the school's long term plan to ensure coverage of statutory knowledge and skills.
- The school's DT progression of skills will be used to identify the learning objectives for each year group, in line with the school's raised expectations.
- The school's vocabulary progression will be taught to ensure explicit vocabulary is taught.

Cross-curricular learning

- At Katherine Semar, we stimulate pupils' curiosity and sustain their interest through cross curricular links with our topics, as well as pupil's own interests and environment. We give high priority to pupils' experimentation with ideas and media, allowing opportunities to review practical work to develop specific skills, supported by inspiring examples by other pupils.

Topic launch and land

- Each half term topic will begin with a cross-curricular launch event to engage and motivate the children. This will also act as 'knowledge harvest' allowing teachers to assess children's existing knowledge and skills in order to adapt planning and ensure appropriate levels of challenge for all children.
- Each half term will end with a land event which celebrates children's learning and progress. This will involve the children communicating their learning in some way, for example exhibitions or assemblies.

A whole school commitment to Design and Technology

- Design and Technology is a highly valued aspect of our school curriculum
- We have a purpose-built DT room with a wide range of DT equipment to ensure the children have the opportunity to complete all skills on our progression.

Challenge and Support for all Learners

- We understand that every learner develops differently and adapt our provision continuously to ensure every child receives the correct balance of support and challenge in order to achieve their very best. We recognise this fact and provide suitable learning opportunities for all children (including those who may be high prior attainers or have additional needs) by matching the challenge of the task to the ability of the child. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

Teaching sequence

- We have designed a teaching sequence which is used across DT units



INSPIRE DT Unit Sequence



Design Brief	Terminology	Investigate	Design	Draft	Create	Evaluate
<ul style="list-style-type: none"> Set the scene of the project Detail needs of the user Establish purpose and functionality Identify key criteria needed for design Define the critical skill to be developed 	<ul style="list-style-type: none"> Explicitly teach precise vocabulary and terminology to support knowledge and skill acquisition Include opportunities for oral rehearsal and application Record key vocabulary 	<ul style="list-style-type: none"> Explore existing products Experiment with a range of exemplars to compare: <ul style="list-style-type: none"> Functionality Form Flavour Aesthetics Compare and contrast examples to inform next steps 	<ul style="list-style-type: none"> Apply knowledge from Design Brief and Investigation to Design stage of the process Create a visual representation and / or prototype of final design 	<ul style="list-style-type: none"> Map each step and stage of the design process Annotate with critical details Consider potential issues and consider options to mitigate 	<ul style="list-style-type: none"> Enact each step of the process to create a final piece Apply knowledge and skill to the practical process 	<ul style="list-style-type: none"> Evaluation the project against the following criteria: <ul style="list-style-type: none"> Design Brief Investigation Design Draft Create Include Self and Peer Assessment Focus on <ul style="list-style-type: none"> What went well Even better if

- We teach construction, cooking and nutrition, mechanics, electronics and textiles with a clearly mapped knowledge and skills progression across the school.

Assessment

- We use MAPP (Mapping attainment and progress for pupils) to assess children's progress against the expectations of our INSPIRE curriculum. We assess children against both the requirements and standards of the National Curriculum as well as our school's own raised expectations for all children.

Impact

DT	Y1	Y2	Y3	Y4	Y5	Y6	Correct in July 2023	KS1 Average	KS2 Average
Total	59	60	60	60	61	79	Total	60	65
Foundation%							Foundation%		
Working Towards%	3	5	10	8	2	4	Working Towards%	4	6
Expected + %	97	95	90	92	98	96	Expected + %	96	94
Higher Standard%	15	30	35	22	39	29	Higher Standard%	23	31

<u>Disadvantaged</u>							<u>Disadvantaged</u>		
Total	5	8	9	6	9	5	Total	7	7
Foundation%							Foundation%		
Working Towards%	20	25	22	17		20	Working Towards%	23	15
Expected + %	80	75	78	83	100	80	Expected + %	78	85
Higher Standard%		13			11	40	Higher Standard%	6	13

<u>Not Disadvantaged</u>							<u>Not Disadvantaged</u>		
	-	-	-	-	-			-	

Total	54	52	51	54	52	74	Total	53	58
Foundation%							Foundation%		
Working Towards%	2	2	8	7	2	3	Working Towards%	2	5
Expected + %	98	98	92	93	98	97	Expected + %	98	95
Higher Standard%	17	33	41	24	44	28	Higher Standard%	25	34

SEN	-	-	-	-	-		SEN	-	
Total	4	4	5	7	9	6	Total	4	7
Foundation%							Foundation%		
Working Towards%	50	25	20	14	11		Working Towards%	38	11
Expected + %	50	75	80	86	89	100	Expected + %	63	89
Higher Standard%		25			22		Higher Standard%	13	6

Not SEN	-	-	-	-	-		Not SEN	-	
Total	55	56	55	53	52	73	Total	56	58
Foundation%							Foundation%		
Working Towards%		4	9	8		4	Working Towards%	2	5
Expected + %	100	96	91	92	100	96	Expected + %	98	95
Higher Standard%	16	30	38	25	42	32	Higher Standard%	23	34

EAL	-	-	-	-	-		EAL	-	
Total	8	11	7	10	10	16	Total	10	11
Foundation%							Foundation%		
Working Towards%			14	10		6	Working Towards%		8
Expected + %	100	100	86	90	100	94	Expected + %	100	92
Higher Standard%	25	27	43		40	31	Higher Standard%	26	29

Not EAL	-	-	-	-	-		Not EAL	-	
Total	51	49	53	50	51	63	Total	50	54
Foundation%							Foundation%		
Working Towards%	4	6	9	8	2	3	Working Towards%	5	6
Expected + %	96	94	91	92	98	97	Expected + %	95	94
Higher Standard%	14	31	34	26	39	29	Higher Standard%	22	32

Boys	-	-	-	-	-		Boys	-	
Total	29	32	20	29	28	41	Total	31	30
Foundation%							Foundation%		
Working Towards%	7	6	25	7		2	Working Towards%	7	9
Expected + %	93	94	75	93	100	98	Expected + %	93	91
Higher Standard%	7	25	10	17	29	24	Higher Standard%	16	20

Girls	-	-	-	-	-		Girls	-	
Total	30	28	40	31	33	38	Total	29	36
Foundation%							Foundation%		
Working Towards%		4	3	10	3	5	Working Towards%	2	5
Expected + %	100	96	98	90	97	95	Expected + %	98	95
Higher Standard%	23	36	48	26	48	34	Higher Standard%	30	39

Significant developments in the subject

- Subject leader is working with curriculum specialist at feeder high school to develop progression for year 5 and 6.
- Year 5 will visit SWCHS to complete their cams project.
- Year 6 will complete an electronics unit following advice from the secondary subject specialist from feeder secondary school.
- Crumbles has been purchased to begin to develop electronics across year 4/5/6.
- Established teaching sequence across the whole school

Strengths

- Children can evaluate their ideas based on design criteria.
- Photographic evidence of process and final product.
- Crumbles has been purchased to build practical coding opportunities into DT
- Opportunities for children's individual design against criteria.
- Wide range of DT skills being taught.
- Evaluating their own designs against criteria and considering what improvements can be made.
- Established curriculum that re-visits key strands of DT teaching.
- Strong evidence in books/booklets across year groups demonstrating opportunities for designing against criteria and evaluating designs and products.
- Examples of cross curricular links which further enhances DT opportunities e.g. Three little pigs in Year One, pizza making in Year 5.
- Members of staff received training in using Crumbles in DT and Computing. Crumbles purchased to build in practical coding opportunities in DT. DT subject leader has worked with curriculum specialist at feeder high school to develop progression for Y5 and 6. DT progression in electronics and mechanisms revised for KS2.
- New tools and equipment purchased following discussion with each year group to support teaching and learning.
- DT vocabulary progression developed (Summer 2021) establishing specific Tier 3 vocabulary to be taught in each year group.
- Early years milestones incorporated into subject progression document.
- Specific teaching sequence established across the whole school (Spring 2022):

Design brief – similar to a 'hook' – 'set the scene' and 'detail the project'. Add in the criteria that you expect to see. We will revisit the design criteria in the evaluation. Design brief should be in books.

Vocabulary – share the vocabulary we will be using. Needs to go in books after the design brief. This should be taken from the vocabulary spine. In Y1 and 2 children are given vocabulary at the beginning of the unit then highlight them as they learn them across the unit.

Investigate – e.g. in cooking they may try different ingredients (or versions of a final product) and evaluate the flavour then make decisions as to what they want to include.

Design – go back to the design criteria. This is drawing but also having a go (creating a prototype). This is where skills will be introduced too. Bring safety in at this point.

Plan – This is where the steps are clearly shown and annotated.

Make – The process is more valuable than the product.

Evaluate – The evaluation should be made against the design brief. More specific comments on 'what went well' for example.

Areas for development

- Year 6 Make do and Mend to develop skills progression in Textiles – investigate expert to come and train the children in pattern making.
- To continue to develop the quality of teaching and learning by acquiring high quality tools and resources for the children to use, including building further links with the local secondary school SWCHS.
- To introduce the vocabulary – product, user, purpose for each DT unit
- Year 4 – To develop skills progression in the new unit - mechanics/pneumatics linked to Egyptians topic

Monitoring and evaluation systems

At Katherine Semar we believe that the most effective way to monitor the impact of our DT policy is to utilise and triangulate a broad range of moderating activities, involve our stakeholders, and apply these regularly, consistently and robustly. Through our annual Monitoring, Evaluation and Review cycle, we employ the following monitoring activities in DT:

- **Lesson Observations and Learning Walks**
Senior leaders and subject co-ordinators regularly undertake planned and unplanned lesson observations and learning walks. These have a clear focus and feedback and findings are used to inform individual and whole-school Continuing Professional Development (CPD), School Development Planning and future monitoring activities.
- **MAPP (Mapping attainment and progress for pupils)**
We use MAPP to assess children's progress against the expectations of our INSPIRE curriculum. We assess children against both the requirements and standards of the National Curriculum as well as our school's own raised expectations for all children. This is analysed annually and used to inform our school development plan.
- **Work Scrutinies**
 - Work scrutinies are carried out by subject coordinators, Senior Leadership Team and whole staff.
- **Governor Visits**
 - As part of the Governors' Monitoring, Evaluation and Review cycle, lead governors in each subject, make regular visits to school to monitor progress towards the school development plan.
 - Monitoring activities include a range of teaching and learning observations, discussions with subject co-ordinators, meetings with pupils, visits to subject specific celebration assemblies, work scrutinies and subject leader reports.
- **Pupil interviews**
 - Senior staff, subject co-ordinators and governors take regular opportunities to listen to the views of pupils in relation to their experience of DT at our school and their feedback actively informs subject development through our curriculum action plan.

SMSC

Spiritual

- Recognising their own creativity and that of others.
- Developing thinking and reasoning skills.
- Making decisions about usefulness, beauty, cost-effectiveness.
- Persevering and taking care, to produce something unique – a sense of achievement and worth.
- Appreciating variety, beauty, ingenuity, achievement, magnificence, and simplicity in design.
- Designing with the needs of others in mind (Mrs Trotter's home).
- Creating something good out of 'rubbish' (e.g. make and mend project).

Moral

- Considering how a product affects society and the environment (now and through history), factories, convenience foods, packaging and recycling.
- Considering issues of health and safety.

Social

- Learning to treat the ideas and finished products of others with respect.
- Developing the skill of co-operation in designing, planning and making.
- Considering the impact of design and technology on society.
- Ensuring variety in content and tasks to provide access and scope for success for girls and boys.

Cultural

- Considering the aesthetic principles of design.
- Appreciating design and technology from a wide variety of cultural contexts.
- Developing awareness that design can communicate and reflect cultural identity.
- Looking at how design in Britain is influenced by different cultures.
- Being aware of differing cultural attitudes to certain products e.g. food, clothes.
- Designs for different climates.
- Instruments from different countries e.g. cooking utensils.

Training

Please see Training Folder.

Enrichment

- Links with SWCHS – visits.
- STEM Week (once every 4 years).
- Year 5 will visit SWCHS to complete their cams project.
- Year 6 will complete an electronics unit following advice from the secondary subject specialist.
- In Year 1, following the creation of Mrs Trotter's houses there was a visit from a property specialist.
- EYFS visit Pizza Express to enhance their topic of Food Glorious Food. (Pre covid)
- In Year 3 during Stone Age topic, children go to Forest School to build structures.
- In Year 4 the children land their Fairground topic by building electronic fairground rides to show their parents.
- In Year 5 they have launched their Pizzeria topic by taste testing a variety of pizzas.
- In Year 6 the children visit Duxford.

- Year 6 Make do and Mend to develop skills progression in Textiles – investigate expert to come and train the children in pattern making.
- Crumbles has been purchased to build practical coding opportunities into DT.
- Knitting Club for KS2 children.