Viking International School

Design and Technology

CURRICULUM INTENT

Viking International School's curriculum aligns with the Danish Fællesmål and meets the standards of the British National Curriculum, leading to GCSE-level outcomes.
We focus on developing critical thinking, creativity, and problem-solving, encouraging students to apply knowledge across subjects through inquiry-based and real-world learning. Collaboration, communication, and cultural understanding are central to our approach. Students learn to work effectively with others, respect diverse perspectives, and develop as responsible global citizens.
Digital literacy and responsible technology use are integrated throughout all subjects to prepare students for the modern world. We promote a growth mindset and lifelong learning, ensuring that our curriculum provides the knowledge, skills, and values students need to succeed in further education—whether in Denmark or internationally—and to contribute positively to society. Each child is supported to reach their full potential through personalized teaching.
The purpose of Design and Technology teaching at VIS is to develop students' ability to investigate, analyse, and apply knowledge of materials, systems, and processes confidently and appropriately for age and context. The subject fosters creativity, problem-solving, sustainability awareness, and intercultural understanding, preparing students to engage meaningfully with the global community through innovative design, responsible technology use, and collaborative communication.
Students' progress in Design and Technology is assessed continuously through classroom participation, practical application, and formative feedback. Summative assessments and self-reflection are used to evaluate understanding and development in relation to the Fællesmål sub-goals.
Learning connects naturally to other areas of the curriculum, supporting a holistic educational experience that encourages students to make connections across disciplines and apply their knowledge in diverse contexts.
Teaching is adapted to meet individual learning needs, ensuring accessibility and inclusion for all learners. Students who require additional support, such as those with dyslexia or other learning differences, benefit from personalized instruction, assistive technology, and tailored strategies that help them thrive within the classroom environment.

YEARGROUP ALIGNMENT

Danish	VIS	Key Stage (KS)
0 Klase	IC 1	KS 1
1 Klase	IC 2	KS 1
2 Klase	IC 3	KS 1
3 Klase	IC 4	KS 2
4 Klase	IC 5	KS 2
5 Klase	IC 6	KS 2
6 Klase	IC 7	KS 3
7 Klase	IC 8	KS 3
8 Klase	IC 9	KS 4
9 Klase	IC 10	KS 4
10 Klase	IC 11	KS 4

OVERVIEW

Requirement (Friskoleloven §1a)	How VIS meets this
Final Goals	Defined through Fælles Mål competence objectives for each subject area.
Sub-goals	Described in the “Skill” and “Knowledge” columns per Key Stage.
Teaching Plan	This document outlines how goals are taught, sequenced, and assessed through each phase.

Common Goals Outcomes Expected to be reached by end of each Key Stage (KS)

Competence Area	After KS 1	After KS 2	After KS3	After KS 4
Design and Technology ‘Students can…’	Students can create and refine simple design ideas using sketches, models, and basic digital tools; make products safely using appropriate materials and techniques; apply basic knowledge of materials, mechanisms, and sustainability; use simple software responsibly; and prepare balanced dishes safely, understanding food origins and nutrition.	Students can design and refine products using sketches, prototypes, and digital tools; make accurate, well-finished products using a range of materials and techniques; apply knowledge of material properties, sustainability, and cultural context; use computing to create, edit, and debug programs and digital content responsibly; and plan, prepare, and present balanced dishes independently, considering seasonality, sustainability, and nutrition.	Students can plan and deliver complex design projects using advanced digital tools and modelling, produce high-quality products that integrate mechanical, electrical, and programmable systems, and critically evaluate their work considering sustainability, ethics, and cultural context. They can apply computing skills to design, program, and model systems, and use technology responsibly. In cooking, students can plan and prepare varied meals for individuals or groups, applying nutritional knowledge, sustainability principles, and cultural awareness, and justify food choices using evidence.	Final I can statements

After KS1

Area of competence	Competency goals		Product Design - Design		Product Design - Production		Product Design - Evaluation		Computing		Cooking	
			Skill (Students can…)	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**
Design and Technology	Students can create and refine simple design ideas using sketches, models, and basic digital tools; make products safely using appropriate materials and techniques; apply basic knowledge of materials, mechanisms, and sustainability; use simple software responsibly; and prepare balanced dishes safely, understanding food origins and nutrition.	**IC1**	Student can use knowledge of existing products to generate ideas and explain how their product will look and work through talking and simple drawings.	Understand purpose, intended user, and basic design contexts (home, school, imaginary).	Student can build simple structures and explore improvements, using basic mechanisms like levers and wheels.	Know simple mechanisms and how to assemble basic structures safely	Student can talk about what they are making and suggest simple improvements.	Understand basic design criteria and how to compare ideas.	Student can use simple computing software to design models with support.	Understand basic digital tools and simple design contexts.	Student can follow simple recipes, use kitchen tools safely, and combine ingredients correctly.	Understand hygiene rules and basic food preparation steps.
		IC 2	Student can design models using simple computing software and test ideas using templates and mock-ups, following simple design criteria.	Know how to use basic digital tools, templates, and criteria for design.	Student can use hand tools safely, measure and cut materials with some accuracy, and join components to make simple products.	Understand safe tool use, basic measuring, and joining techniques.	Student can explore and evaluate existing products, identify positives and areas for improvement, and evaluate their own ideas against simple criteria.	Know how to discuss materials and design features in simple terms.	Student can design models independently using simple software and test ideas digitally.	Know how to use templates and basic digital functions for design.	Student can cut, peel, grate, and weigh ingredients accurately and explain where foods originate.	Know food groups, origins, and basic nutrition principles.
		IC 3	Student can identify design features that appeal to users, use annotated sketches and prototypes, and explain material choices for function and aesthetics.	Understand annotated sketches, design criteria, and how to test ideas through prototypes.	Student can select tools and materials carefully, follow systematic production steps, and apply finishing techniques to improve appearance.	Know functional and aesthetic qualities of materials and basic workshop safety.	Student can evaluate products against original design criteria and consider views of others to improve their work.	Understand purpose, function, and how technological developments influence design.	Student can use computer-aided design to develop and communicate ideas following design criteria.	Understand digital design tool basics and how to apply design principles digitally.	Student can prepare and cook savoury dishes safely using heat sources, measure accurately, and explain seasonality and taste.	Understand healthy diet principles, energy needs, and seasonality.

After KS2

Area of competence	Competency goals		Product Design - Design		Product Design - Production		Product Design - Evaluation		Computing		Cooking	
			Skill (Students can…)	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**
Design and Technology	Students can design and refine products using sketches, prototypes, and digital tools; make accurate, well-finished products using a range of materials and techniques; apply knowledge of material properties, sustainability, and cultural context;	**IC 4**	Student can generate several design ideas, create prototypes, and refine them through testing and feedback.	Understand basic properties of materials, simple design criteria, and how to sketch and label ideas clearly.	Student can use basic hand tools and simple machines safely to make products with attention to detail.	Know safety rules, basic craft techniques (cutting, joining, finishing), and material behaviour.	Student can reflect on mistakes and suggest improvements to enhance product quality.	Understand basic evaluation criteria such as function and finish.	Student can write and debug simple programs using sequence, selection, and repetition.	Understand basic algorithms, variables, and safe online behaviour.	Student can follow recipes, apply basic techniques safely, and present simple dishes considering health and seasonality.	Understand food groups, hygiene, and origins of common ingredients.

	use computing to create, edit, and debug programs and digital content responsibly; and plan, prepare, and present balanced dishes independently, considering seasonality, sustainability, and nutrition.	**IC 5**	Student can research user needs, develop multiple design ideas, and justify choices using function, durability, and aesthetics.	Know how to apply design criteria, sustainability principles, and use structured planning and evaluation methods.	Student can apply advanced shaping and joining techniques, plan multi-step processes, and maintain safe workshop habits.	Understand technical properties of materials, measurement accuracy, and sustainability consideration.	Student can evaluate their own and others' products, giving detailed feedback on function, quality, and craftsmanship.	Know how to apply criteria like durability, sustainability, and aesthetics in evaluation.	Student can design programs with loops, conditionals, and variables, and explain algorithms using logical reasoning.	Know basics of networks, data handling, and evaluating digital tools.	Student can plan balanced meals, apply advanced techniques, and adapt recipes for flavour and presentation.	Know nutritional principles, sustainability, and cultural aspects of food.
		IC 6	Student can analyse user requirements, produce complex design solutions, and iterate prototypes using evidence from testing.	Understand advanced design principles, technical drawings, and how cultural and environmental factors influence design	Student can use a wide range of tools and machinery confidently, applying high craftsmanship standards and solving practical problems.	Know detailed material criteria, reinforcement methods, and how to minimise waste through efficient processes.	Student can critically analyse products against multiple criteria and propose specific technical improvements.	Understand advanced evaluation frameworks, including mechanics, materials, and environmental impact.	Student can create programs using functions, loops, and conditionals, and understand encryption and secure data transfer.	Understand advanced computing concepts like networks, privacy, and intellectual property.	Student can prepare complex dishes independently, justify ingredient choices, and evaluate meals critically for health and impact.	Understand ethical food sourcing, environmental impact, and advanced cooking methods.

Area of competence	**Competency goals**		**After KS3**									
			Product Design - Design		**Product Design - Production**		**Product Design - Evaluation**		**Computing**		**Cooking**	
			Skill (Students can…)	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**	**Skill (Students can…)**	**Knowledge**
Design and Technology	Students can plan and deliver complex design projects using advanced digital tools and modelling, produce high-quality products that integrate mechanical, electrical, and programmable systems, and critically evaluate their work considering sustainability, ethics, and cultural context.	**IC7**	Student can analyse user needs and existing products, generate creative ideas, and communicate them using annotated sketches, models, and basic digital design tools. They can refine designs iteratively with feedback.	Understand design specifications, basic modelling techniques, and sustainability principles.	Student can apply increasing precision in handcraft techniques, select tools appropriately, and combine traditional craftsmanship with digital fabrication tools to produce accurate prototypes.	Know material properties, safe tool use, and basic mechanical/electrical systems.	Student can test products against specifications, give and respond to feedback, and suggest improvements based on evidence.	Understand evaluation criteria and basic sustainability concepts.	Student can embed simple programmable components in products and apply scientific and mathematical knowledge to improve design accuracy.	Understand material properties, structures, and basic electronics.	Student can prepare balanced savoury dishes independently, explain nutrients, and evaluate food using sensory analysis.	Understand seasonality, sourcing, and basic nutrition.

	They can apply computing skills to design, program, and model systems, and use technology responsibly. In cooking, students can plan and prepare varied meals for individuals or groups, applying nutritional knowledge, sustainability principles, and cultural awareness, and justify food choices using evidence.	**IC 8**	Student can plan and deliver an extended independent design-and-make project, defend design choices through structured argumentation, and evaluate aesthetic, cultural, and historical qualities of their work.	Understand advanced modelling (physical, digital, computational), cultural influences, and how to justify design decisions effectively.	Student can demonstrate high-level manual dexterity, integrate advanced technologies and produce finished products that meet functional and aesthetic requirements.	Understand integrated mechanical–electrical–digital systems and sustainability considerations.	Student can engage in structured critique and dialogue, argue for material and design choices, and assess societal and cultural impacts of design decisions.	Know ethical considerations, cultural context, and advanced evaluation frameworks.	Student can design integrated mechanical–electrical–digital systems, model systems computationally, and justify design choices based on efficiency and sustainability.	Understand principles of energy, electronics, and computational modelling.	Student can plan meals for groups considering cost, time, sustainability, and cultural traditions, interpret food labelling and marketing, and justify food choices using evidence.	Understand cultural and historical food traditions, consumer awareness, and ethical/environmental impacts.