



Thornccliffe Association
Curriculum
Age 9 - 12



RoboThink is an international leader in STEM education, offering fun and engaging programs in **robotics, coding, and engineering** for children of all ages. Our hands-on curriculum is designed to spark curiosity, foster creativity, and build critical problem-solving skills.

Through guided activities, students learn to **design, build, and program robots** while developing teamwork, logical thinking, and confidence. Each session is structured to balance **learning and play**, ensuring that children not only gain valuable technical knowledge but also have fun throughout the process.

RoboThink programs are trusted by schools and learning centers worldwide and are carefully tailored to meet the needs of different age groups, ensuring that every student is challenged at the right level.

Our mission is simple: to inspire the next generation of **engineers, innovators, and problem solvers** through exciting, hands-on STEM experiences.



Program Description

Get ready for an exciting six-week journey through **transportation, machines, and engineering!** Students will use RoboThink's hands-on robotics system to build a different project each week while exploring concepts such as **motion, motors, gears, mechanical design, and problem-solving.**

Each project gives students a new engineering challenge and encourages them to build, experiment, modify, and learn through hands-on STEM activities.

Weekly Projects:

- **Week 1 – The Pequod:** Build a model inspired by the famous ship and explore mechanical design and movement.
- **Week 2 – The F-16:** Engineer a model inspired by the F-16 while learning about aircraft design and engineering.
- **Week 3 – Steam Engine:** Discover the evolution of transportation by constructing a steam-engine-inspired model.
- **Week 4 – Armored Tank:** Build a rugged tank model and explore mobility, stability, and mechanical engineering.
- **Week 5 – I.R. Plane:** Construct an aircraft-inspired robotic model while exploring movement, structure, and creative engineering.
- **Week 6 – Build Your Own:** Put your new skills and imagination to work by designing and building your **own unique creation.**

Throughout the program, students develop **critical thinking, creativity, problem-solving, fine motor skills, and confidence** while having fun with robotics and engineering.

No previous robotics experience is required—just bring your imagination and get ready to build!

Robothink Schedule

Week	Activity
Week 1	The Perquod
Week 2	The F 16
Week 3	Steam Engine
Week 4	Armored Tank
Week 5	I R Plane
Week 6	Build Your Own Race Car

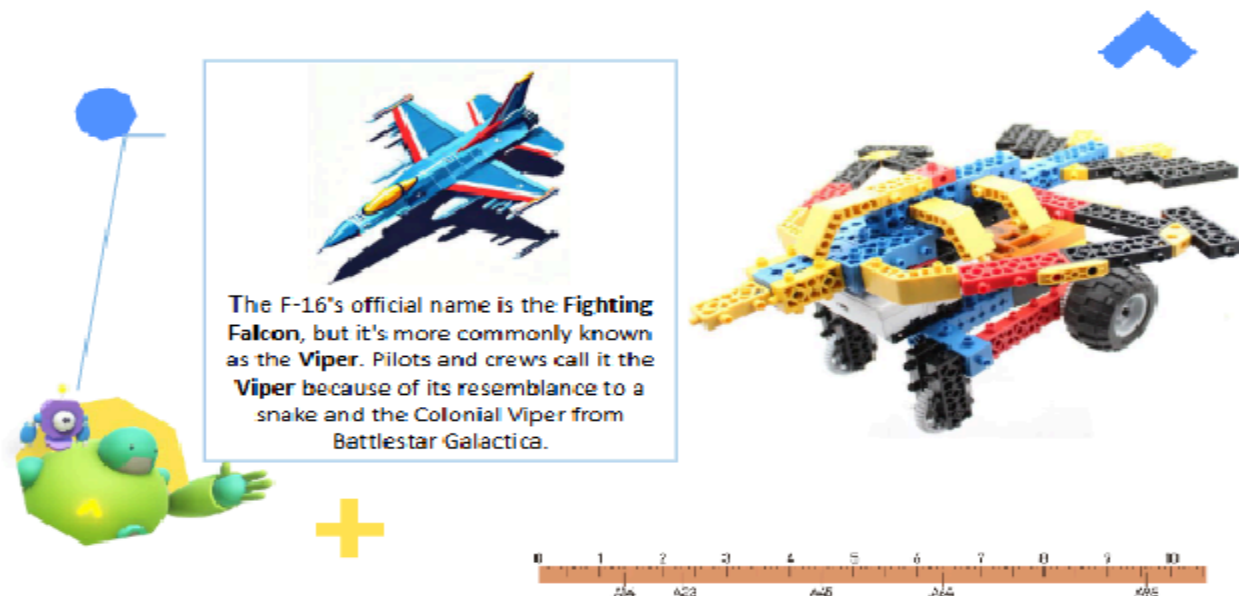
TRAINS, PLANES AND AUTOMOBILES

LESSON 1: THE PEQUO



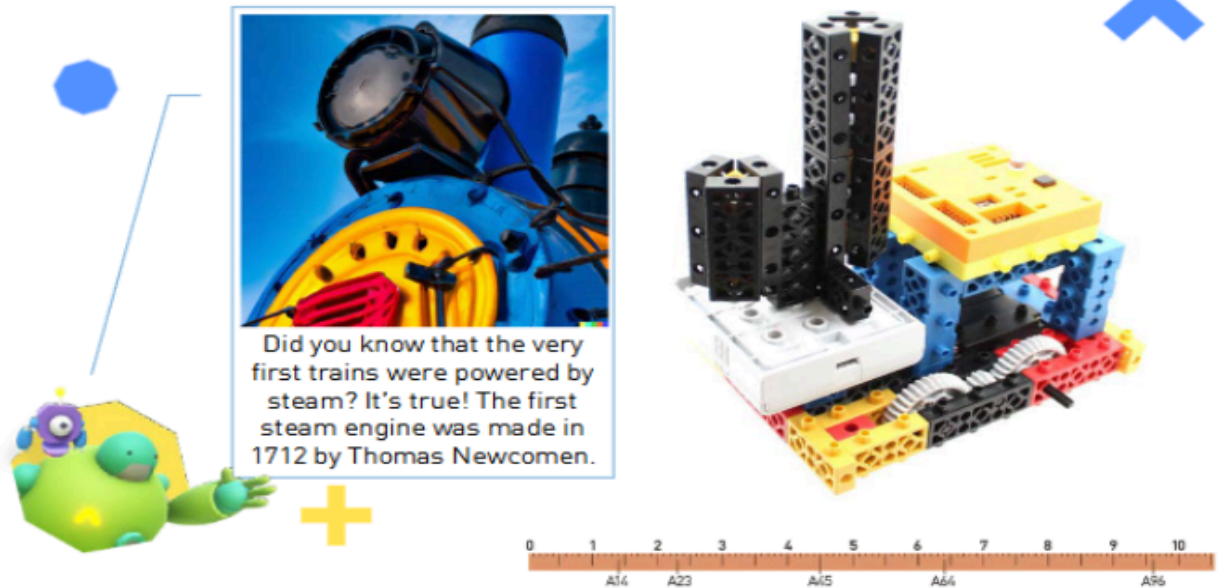
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LESSON 2: THE F-16



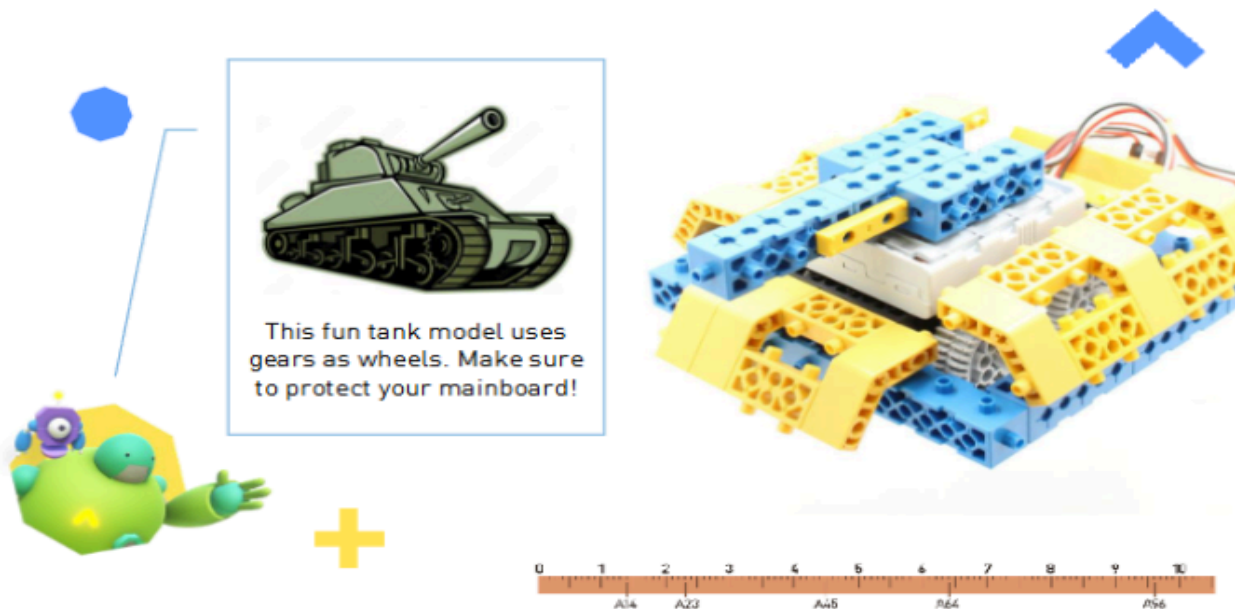
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LESSON 3: STEAM ENGINE



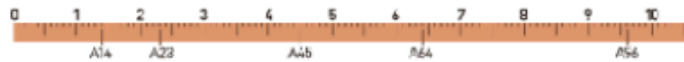
TRAINS, PLANES AND AUTOMOBILES

LESSON 4: ARMORED TANK



TRAINS, PLANES AND AUTOMOBILES

LESSON 5: A-IR PLAN



TRAINS, PLANES AND AUTOMOBILES

LESSON 6: Build Your Own Ride

