KANG CHIAO INTERNATIONAL SCHOOL 康橋國際學校

Spring 2022/23 Grade 6 Future Skills Syllabus

Harnessing Wind Power			
Week	Stage	Syllabus content	Note
1	Ask	Project introduction – context and problem to be solved	p. 2
2	Imagine	Review of renewable and non-renewable energy sources Research and discussion on potential, kinetic, and mechanical energy	p. 3-4
3	Imagine	Research wind turbine blade design Introduce available materials and design constraints	p. 3-4
4	Plan	Study available materials and brainstorm design ideas. Complete a rough sketch for a wind turbine.	p. 5
5	Plan	Finalize hand-drawn design complete with accurate measurements and labels.	on graph paper
6	Design	Tinkercad basic skills lesson	-
7	Design	Tinkercad basic skills lesson	-
8	Design	Create a 3D model of the chosen wind turbine design in Tinkercad	-
9	Design	Create a 3D model of the chosen wind turbine design in Tinkercad	-
10	Create	Build the wind turbine using chosen materials and design specifications	-
11	Create	Build the wind turbine using chosen materials and design specifications	-
12	Create	Finish construction of the wind turbine and ensure functionality	-
13	Test	Test the wind turbine and assess results based on the specified task	p. 6
14	Redesign	Analyze test results and assess areas of improvement Draw a redesign plan	p. 7-8
15	Create	Improve the wind turbine based on test results and redesign plan	p. 7-8

16	Retest and Communicate Results	Test the wind turbine and assess results based on the specified task Present findings in a comprehensive report	