Technological Design
TDJ2O

Course Description: This course provides students with opportunities to apply a design process to meet a variety of technological challenges. Students will research projects, create designs, build models/prototypes, and assess products/processes using appropriate tools, techniques, and strategies. Student projects may include design for homes, vehicles, bridges, robotic arms, clothing, or other products. Students will develop an awareness of environmental & societal issues related to technological design and will learn about secondary, postsecondary education and alternate training leading to careers in this field.

Level:	Grade 10 - Open
Credit Value:	1.0
Prerequisite:	None
Department:	Technology Department
Course Fees:	None

Textbooks & Resources:

- Growing Success: Assessment, Evaluation and Reporting in Ontario Schools
- The Ontario Curriculum Grade 9 and 10 Technological Education
- Google Classroom will be for general documentation, SATEC drop/pick up for Digital Drawings, TDSB Software

Course Evaluation: Student Evaluation consists of three components...

1) Learning Skills & Work Habits:

Students are evaluated on 6 Learning Skills & Work Habits. The 6 Essential Skills are:

- Responsibility
- Organization
- Independent Work
- Collaboration
- Initiative
- Self-Regulation

These six attributes are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) & Needs Improvement (N) and reported on the report card. They are not included in the course mark, unless specified in the curriculum expectations

2) 100% = Course Mark (Assessment of Learning):

Student performance standards for knowledge and skills are described in the curriculum Achievement Chart. The curriculum is assessed in four categories:

- Knowledge 20%
- Thinking & Inquiry 20%
- Communication 20%
- Application 40%

Evaluation of these four categories within each project generates the course mark:

PROJECT #1 = 50%
PROJECT #2 = 50%

It is the student's responsibility for submitting evidence of Learning.

For a detailed description on Course Evaluation, see www.satec.on.ca

Course Conduct Policies: See Student Agenda.

Toronto District School Board

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Course Outline:

Unit	Description	Approx. Length	Unit Evaluation
Safety	**Students will learn basic understanding of workplace safety & rights.**	**{home}**	
Additive Manufacturing	**Students will create an 'ECO' character:** ● research 'ECO' initiative ● design sketches ● learn AutoCAD 2D/3D ● draw 3D 'ECO' character = 3D Printer ● design process report	**{5 weeks }**	Research + Character Design (20%) AutoCAD Skills (20%) 3D Printer Character (40%) Design Process Report
(and/or)			
Engineering: CO2 Dragster	**Students will make a CO2 Dragster:** ● research + presentation ● design sketches ● technical drawings ● wood shop safety training ● use of woodworking hand tools to build dragster ● RACE! ● report	**{ 5 weeks }**	Research (20%) Technical Dwg (20%) Safety Training (20%) Built Work (40%)
(and/or)			
Industrial Design: Furniture	**Students will design a custom Home Office:** ● research + presentation ● design sketches ● technical drawings ● model ● report	**{ 5 weeks }**	Research (20%) Technical Dwg (20%) Report (20%) Built Work (40%)
(and/or)			
Product Design:	**Students will design a product in response to COVID19:** ● research + presentation ● design sketches ● technical drawings ● model ● report		Research (20%) Technical Dwg (20%) Report (20%) Built Work (40%)

Note:
Order and/or type of units delivered may change due to student needs, available resources and equipment.
Two (2) of the above units will run.

General Information:

Field Trips: There will be no field trips due to Covid19.
Recommended Resources: Google Classroom, School network documents and internet, library.
How to Seek Extra Help: Mornings, during class, email.
Certifications: None.
Safety Training: All students will complete wood shop safety training to the Teacher's standards prior to use.