

## **GRADE 9 – LEARNING THROUGH INVENTION**

### **SPRING BREAK ACTIVITY**



Dear Parent

As part of the 'Cambridge Internal Assessment,' Merryland International School would like to provide an excellent platform for pupils to exhibit their talents in various subjects by participating enthusiastically in research and model making activities during this spring vacation.

**Participation is compulsory as every child is expected to take part in at least 1 research of his/ her area of interest. The work will be marked for internal assessment and will also be on display for parents and important visitors.**

**All projects must be submitted on 10<sup>th</sup> April 2017**

We request our dear parents to encourage your child to take active part in this activity as it helps develop writing, oral presentation, creative thinking, and problem solving skills.

#### **Topics for Research**

##### **English**

Great Personalities- Research- based on happiness and success

##### **Science and Math**

Finding an idea for the project can be the most difficult part. Some students spend more time looking for a topic than doing the actual experiment. Ideas for projects can come from many sources of the World Wide Web.

List of websites with topics and ideas

- <http://www.sciencekids.co.nz/projects.html>
- <http://www.scholastic.com/teachers/article/40-cool-science-experiments-web>
- [http://www.scienceprojectresources.com/3rd\\_Grade\\_Science\\_Fair\\_Projects.asp](http://www.scienceprojectresources.com/3rd_Grade_Science_Fair_Projects.asp)
- <http://www.science-fair-guide.com/>
- <http://www.cool-science-projects.com/Science-Fair-Project-Ideas.html>
- <http://www.isd77.k12.mn.us/resources/cf/ideas.html>
- [http://www.sciencebuddies.org/mentoring/register\\_guest.php](http://www.sciencebuddies.org/mentoring/register_guest.php) 4.
- <http://www.twingroves.district96.k12.il.us/ScienceInternet/GetStarted.html>
- <http://www.all-science-fair-projects.com/>
- Love Math? Math Projects <http://camel.math.ca/Education/mpsf/>
- Energy Quest Science Fair Projects  
<http://www.energyquest.ca.gov/projects/index.html#chemical>

- Electrochemistry Experiments  
[http://www.funsci.com/fun3\\_en/electro/electro.htm](http://www.funsci.com/fun3_en/electro/electro.htm)

### **Working and static models for**

#### **Math:**

Research- Locus and circle theorem

Model Making: Any topic of mathematics for the working model

#### **Physics:**

Research: Super conductivity and super fluidity

Research- Alternative energy sources at home

#### **Chemistry:**

Research: Synthetic Polymers

Model Making: Electrolysis – synthetic polymers- fractional distillation

#### **Biology:**

Model Making: Structure of DNA, Nucleus, Protein Synthesis, Application of Biotechnology

Research – Genetics and Biotechnology

#### **ICT:**

Model Making: Computer networking

Research: Net work security

#### **Business Studies:**

Research: seven largest and successful Businesses in the world

Model Making: Innovative products