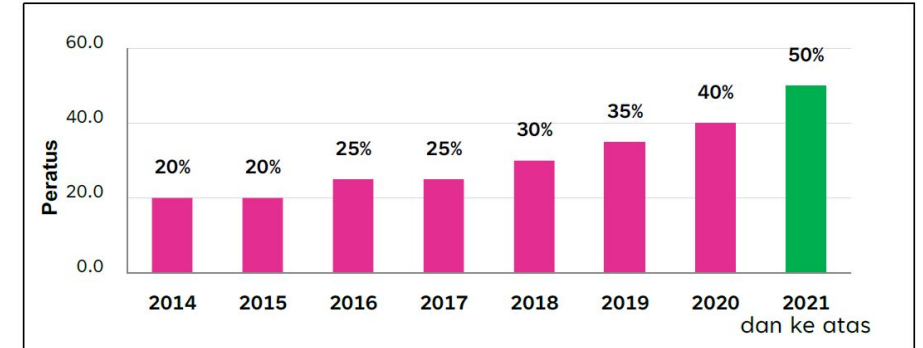


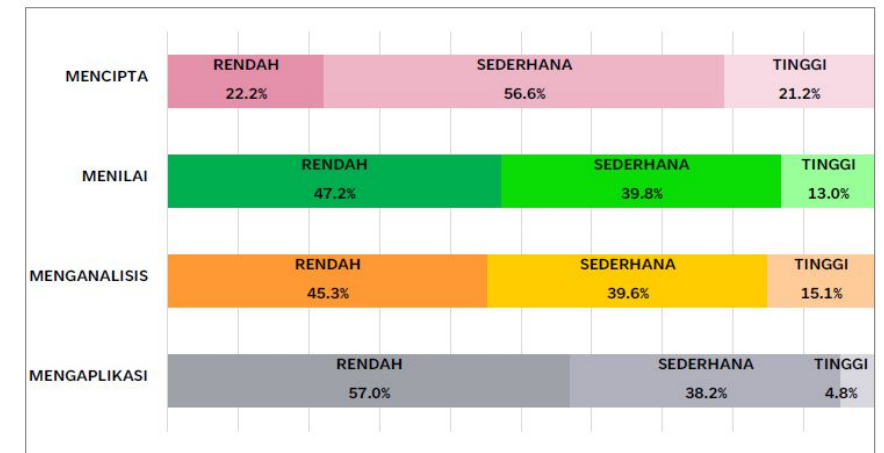
Grant Opportunity

STEM School Programme: Inquiry-based Learning for secondary school students

1. **Inquiry-based learning (IBL)** is a student-centered approach to learning that encourages students to ask questions, explore and discover information for themselves.
2. This is one of the effective approaches to improve Higher Order Thinking Skills (HOTS), such as critical thinking, problem-solving and creativity.
3. Based on the SPM 2022 Analysis Report from the Ministry of Education (MOE), the **percentage of HOTS questions in the SPM examination paper** started with 20% in 2014 and have gradually **increased to 50%** from 2021.
4. Based on the analysis conducted, it was evident that SPM 2022 candidates have the strength in creative skills however are lacking in other skills such as **evaluation, analysis and application skills**.
5. Thus, YP would like to embark on secondary school programmes involving lower secondary students that focus on an **inquiry-based learning approach** that will help to improve their HOTS.
6. Therefore, YP would like to invite interested and eligible organisations to apply for YP Grant for the implementation of inquiry-based learning programmes at secondary schools.



Rajah 15: Peratus Soalan KBAT Dalam Kertas Peperiksaan



Rajah 18: Peratusan Kualiti Jawapan Calon Mengikut Kemahiran Dalam KBAT

Source: [Laporan Analisis Keputusan Peperiksaan SPM Tahun 2022 \(moe.gov.my\)](https://www.moe.gov.my)

Project: STEM School Programme: Inquiry-based Learning (1/2)

Pillar Description	Powering Knowledge (Education) pillar in Yayasan PETRONAS aims to enable high quality STEM Education to advance human capital of Malaysia and inclusive education support for deserving students.
Project Description	Equip lower secondary students (Form 1 to Form 3) with inquiry-based learning (IBL) in nurturing higher order thinking skills (HOTS) through STEM.
Purpose of Proposal	<ol style="list-style-type: none"> To equip IBL through STEM to enhance HOTS among lower secondary school students. To improve STEM interest, awareness and competencies among lower secondary school students.
Target Group	<ul style="list-style-type: none"> Malaysian students. Priority to B40 lower secondary school students. MOE schools (i.e SMK, SMKA, SMJK)
Area(s) of Intervention	<ul style="list-style-type: none"> STEM-related topics, especially topics that promote sustainability approach Four core skills of HOTS (Creating, Analysing, Evaluating, Application) Awareness and knowledge transfer among teachers and students Skills training
Proposal Requirement	<ul style="list-style-type: none"> Clear proposal on planning, methodology, baseline study and impact measurements to track the progress against target impact. Implementation of hands-on activities that are related to STEM subjects to mould the students' skills in using IBL to enhance their HOTS. Incorporation of soft-skills elements in the project.

Project: STEM School Programme: Inquiry-based Learning (2/2)

Additionality	Priority will be given to the proposal with: <ul style="list-style-type: none">• Elements of understanding sustainable development goals (by individual/group).• Engagement or involvement of the local authorities (such as Jabatan Pendidikan Negeri) during planning and implementation of the programme.• Establishment of training of trainers (to teachers, school leaders) or committed group of communities to ensure the sustainability of the programme.
Guiding Principles	<ul style="list-style-type: none">• Project must provide services or benefits to Malaysian citizens regardless of race, religion and descendant or political affiliation• Project must provide measurable impact with proven value creation to the beneficiaries.• Impact of the project can continue beyond the time period.• Project is cost efficient i.e. can benefit as many beneficiaries as possible for the least cost.
Project Duration	At least 1 year period, inclusive of monitoring outcome and sustainable impact
Funding Estimate	RM 1,000,000.00 per project
Restrictions	Refer Exclusion List