A Malaysian Teachers' Guide to GCED
in Primary School (Years 4 to 6)

Understanding and Practice of Global Citizenship Education

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Penang Arts Education Society

A Malaysian Teachers' Guide to GCED for Primary School (Years 4, 5, and 6): *Understanding and Practice of Global Citizenship Education*

A Malaysian Teachers' Guide to GCED for Primary School (Years 4 to 6):

Understanding and Practice of Global Citizenship Education

Asia-Pacific Centre of Education for International Understanding (APCEIU)

APCEIU is a UNESCO Category 2 Centre established in 2000 by the Agreement between the Government of the Republic of Korea and UNESCO in order to promote and develop Education for International Understanding (EIU) and Global Citizenship Education (GCED) with UNESCO Member States. APCEIU has played a pivotal role in promoting GCED reflected in both the UNESCO Education 2030 and UN Sustainable Development Goals (SDGs).

https://www.unescoapceiu.org

Educational Planning and Research Division, Ministry of Education Malaysia

The Educational Planning and Research Division (EPRD) is a division under the Policy and Curriculum Sector of the Ministry of Education Malaysia. It is responsible for the educational development planning, providing educational policies as well as data collection and educational information. The main functions of this division are conducting policy research, policy analysis, evaluation, educational data collection and documentation. It serves as the heart of MoE, responsible for reviewing and assessing organisational development of professional divisions of the MoE, State Education Departments, and District Education Offices towards a quality educational system.

https://www.moe.gov.my/bahagian-perancangan-dan-penyelidikan-dasar-pendidikan

Penang Arts Education Society (Arts-ED)

Arts-ED is a non-profit organisation based in Penang, Malaysia. The organisation's ethos is to provide innovative community-based arts and culture education in rural and urban communities. Arts-ED's programmes focus on the themes of arts, culture, and heritage and utilise creative educational approaches that encourage learning based on issues in the real world.

https://www.arts-ed.my

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The National Education Philosophy

"Education in Malaysia is an ongoing effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally, and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving high levels of personal wellbeing as well as being able to contribute to the harmony and betterment of the family, the society, and the nation at large."

Source: Education Act 1996 (Act 550)

Foreword

Preface

Our world is deluged by challenges: violent conflicts, natural disasters, climate change and many other issues. There is an imminent need to educate the future generation to become change-makers that understand how to champion peace, justice, sustainability and liveability. Global citizenship is a call to action – for people to realise the impact of their behaviours, and embrace their personal as well as shared roles and responsibilities in safeguarding the planet and all life on it.

Global Citizenship Education (GCED) is an approach that aims to prepare and empower learners with the knowledge, skills, and values needed to think critically; reflect and respond compassionately; problem-solve; and take action. As GCED is a lifelong learning process, it is important to start instilling in learners the required competencies from a young age. This book has been carefully crafted as a guide for Malaysian primary school teachers on how to incorporate GCED into the Upper Primary Curriculum.

This guidebook provides teachers with a clear understanding of the concept of GCED and current critical issues that need to be addressed and outlines the knowledge, skills, and competencies that learners require in order to tackle local and global challenges. It provides instructions and exemplars on how to infuse GCED into lessons, and suggests useful learning and assessment strategies that teachers can adopt and adapt. The guidebook provides for classroom as well as community-based practice of GCED.

The publication of this guidebook was truly a team effort that involved several organisations and stakeholders. UNESCO APCEIU is the convener of the Global Citizenship Education Curriculum Development and Integration (GCED CDI) project, a 3-year project that aims to kickstart the mainstreaming of GCED in the educational system. On the Malaysian side, the Educational Policy Planning and Research Division in the Ministry of Education acted as project secretariat and chair, bringing together a technical committee involving relevant MoE divisions. Arts ED, a non-profit organisation based in Penang, was engaged to conduct baseline research on the current status and practices of GCED in Malaysian primary schools, and to develop the guidebook with support and feedback from a panel of 17 teachers nationwide.

This guidebook highlights that learning is not just about knowing, but should inspire learners to be part of the solution.

Janet Pillai
Founder of Arts-ED

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Chapter 1

Introduction to Global Citizenship Education

Image 1 (Top): Learners observe plant growth in an urban garden. (Source: SJK(C) Kg Baru Ampang)
Image 2 (Bottom): Learners conduct inquiry in real sites to capture communities' views on issues.

Chapter 01
Introduction to Global Citizenship Education

1.1 GLOBAL CITIZENSHIP

As citizens of Malaysia, we have special rights and responsibilities. We have the "rights" to live and work in Malaysia, but we also have the "responsibilities" to obey the laws of the country and live peacefully with our neighbours.

As global citizens, we are members of humankind who live on a planet with limited resources. We have the right to use these resources, but we must be sure that we leave some for our future generations. ***All good things should last for all forever.*** With globalisation, we are politically, economically, and socially interdependent. Therefore, we have a joint responsibility to work together to ensure that everyone has the opportunity to benefit from education and learn the values, behaviours, and lifestyles required for a peaceful, clean, and just world.

We need to care, respect, and protect communities, the environment, and resources at the local, national, and global levels because we are now highly interconnected and what we do at one level can impact another.

> 66 A global citizen is considered someone who is aware of the wider world and has a sense of personal responsibility as a world citizen. 99

(Oxfam, n.d.)

1.2 GLOBAL CITIZENSHIP EDUCATION (GCED)

"[GCED] represents a conceptual shift [in our education system] in that it recognises the relevance of education in understanding and resolving global issues. It also acknowledges the role of education in moving beyond the development of knowledge and cognitive skills to build values, soft skills and attitudes among learners that can facilitate cooperation and promote social transformations." (APCEIU, 2014)

As primary school teachers, we need to go beyond teaching the basic 3Rs (Reading, Writing, and Arithmetic) to our pupils. We need to prepare our pupils to understand real-world challenges that affect us all, such as climate change, conflict, discrimination, violence, poverty, and inequality. We also need to prepare our pupils to take an active role as citizens, to contribute to and improve the world we live in. We need to inculcate the universal values of respect, justice, peace, and sustainability among our pupils so that they can understand, act, and relate to others and the environment appropriately.

1.3 IMPORTANCE OF GCED

In recent times, our world has become very interconnected and interdependent. Raw materials, food, humans, knowledge, and technology are being transported and shared across the globe. This interdependence can cause positive and negative consequences. For example, when one country sources cheaper labour from another country, it can lead to problems of out-migration, breakdown of family structures, and labour issues. Similarly, if one country burns their forests in preparation for agriculture, it can cause air pollution in a neighbouring country and lead to cross-border conflict.

Image 3 (Left): "Indonesia haze: Why do forests keep burning?" (Vaughn, 2019)
Image 4 (Right): "The haze comes again." (Saad, 2023)
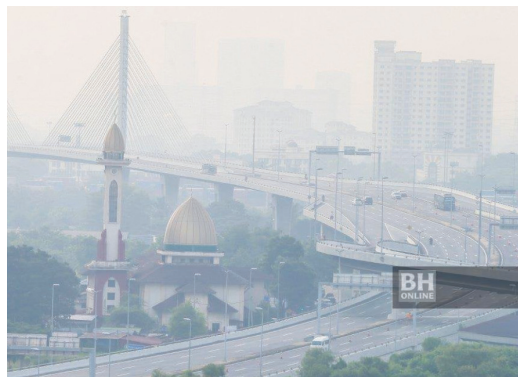
This interdependence makes it extremely important for us to collaborate to safeguard our planetary resources and systems. The principle of "Think Global, Act Local" urges us to consider the wellness of the entire planet and to take action in our own communities and cities. The ideals of global citizenship are made real through our personal attitudes and behaviour, our consumption choices, and our social and political actions.

As the world changes rapidly, we also need to change our teaching approaches so our pupils have the knowledge and skills to manage change on a personal level and at their future workplace. UNESCO promotes GCED to help learners understand the world around them and work together to fix the big problems that affect everyone.

GCED can be viewed as an "umbrella term" that covers various forms of value-based education, such as education for sustainable development, peace education, human rights education, education for appreciation of diversity, conflict resolution, and civic education.

1.4 OBJECTIVES OF GCED

Global Citizenship Education (GCED) aims to instil a sense of solidarity and responsibility among pupils to play an active role in addressing local and global challenges, contributing to a more peaceful, just, sustainable, and safe world.

GCED also aims to empower pupils with core citizenship competencies and enhance their responsiveness, proactiveness, and ability to apply the knowledge, skills, and values that they gain towards solving problems facing humanity and the environment.

1.5 GCED IN THE CONTEXT OF PUPILS' LEARNING

Exploring local and global connections

Exploring issues of social justice locally and globally

Reflecting on our views, values, and assumptions

Exploring the complexity of global issues and engaging with multiple perspectives

Applying learning to real-world issues and contexts

Taking opportunities to make informed, reflective actions and be heard
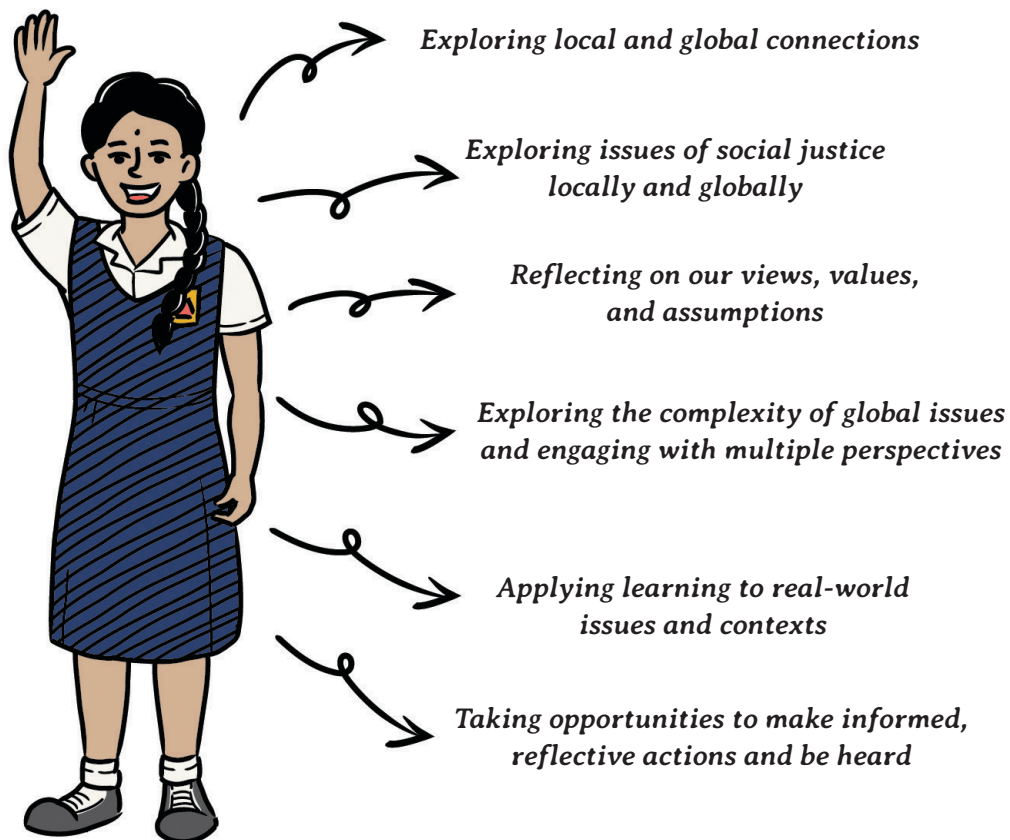
Adapted from Oxfam (n.d.)

Figure 1: GCED in the context of pupils' learning

Chapter 2

A GCED Conceptual Framework
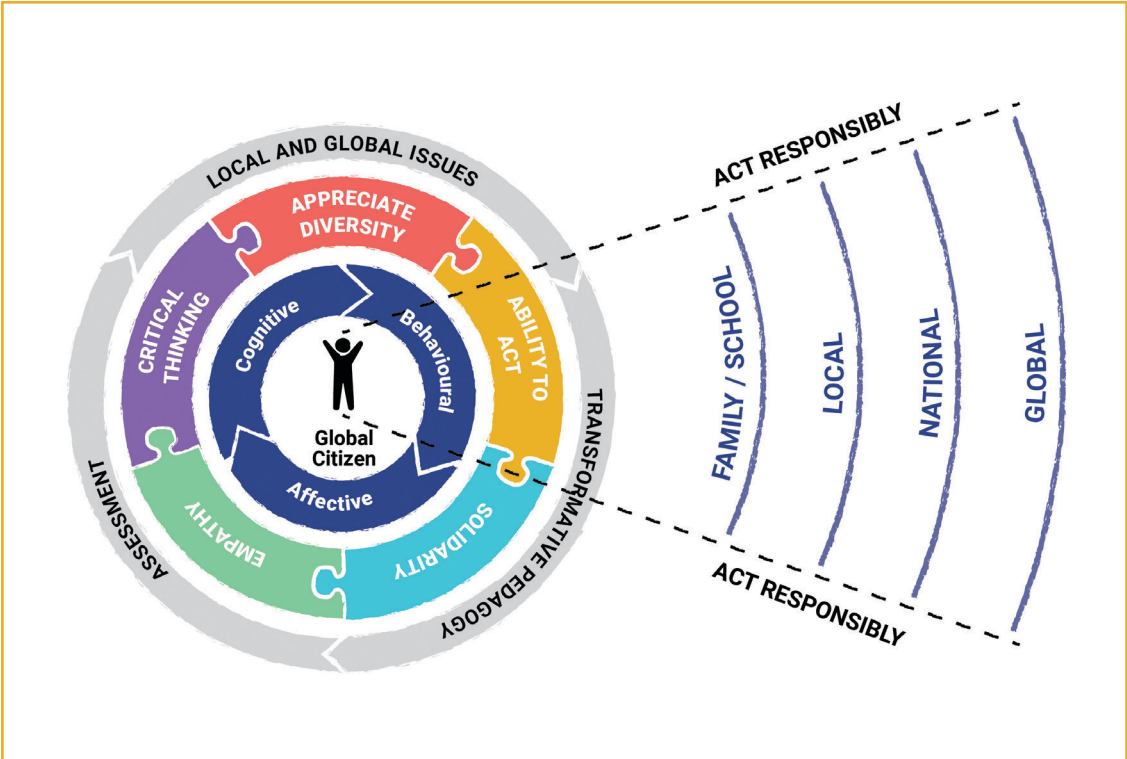
Figure 2 (Top): Proposed framework for GCED in the Malaysian education context
Image 5 (Bottom): Introducing GCED and its importance in 21st century teaching and learning to teachers.

Chapter 02
A GCED Conceptual Framework

The following conceptual framework is a guide for understanding the various components that we need to consider while preparing to integrate GCED into the school curriculum.

The conceptual framework of this GCED teachers' guide is well aligned with the forthcoming '***Kerangka Kurikulum Persekolahan 2027*** (2027 School Curriculum Framework)', the goals of which include balanced development, lifelong learning, respecting diversity, responsible citizenship, and global responsiveness. More specifically, the 2027 School Curriculum Framework promotes project-based learning and multimodal learning towards the acquisition and application of knowledge, skills, and values.

These principles and components of the 2027 School Curriculum Framework allow teachers to easily integrate and infuse GCED into existing subjects, and to introduce GCED through projects which can be carried out by a particular class or throughout the school.
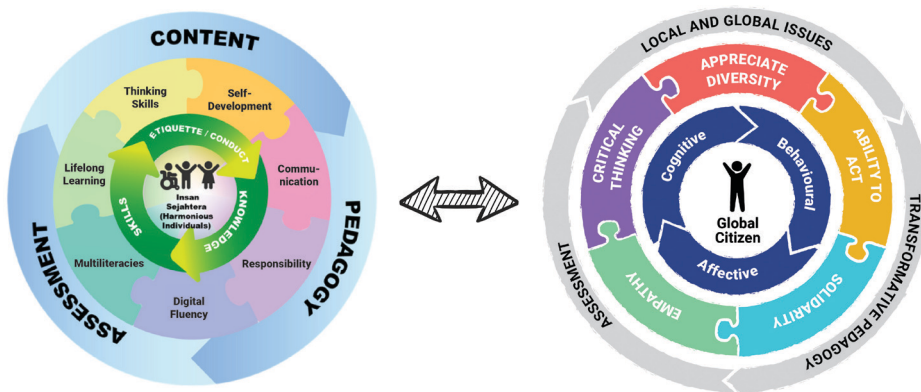
Figure 3: The GCED conceptual framework is connected with the 2027 curriculum framework (Kementerian Pendidikan Malaysia, n.d.).

2.1 COMPONENTS OF THE FRAMEWORK

2.1.1 GCED Content, Pedagogy, and Assessment

To prepare our pupils to face local problems and global challenges, we, as teachers, need to change what and how to teach, as well as how to assess GCED learning. The teaching and learning of GCED has specific content, pedagogy, and assessment as follows:

1. Knowledge and understanding of local and global issues through learning in, about, and from real situations.

2. Transformative pedagogy which aims at enabling pupils to examine any issues critically from various perspectives and act accordingly to bring about change.

3. Assessment of knowledge gained, cognitive skills, values and attitudes, as well as behavioural change.

Figure 4: Infusing GCED content, pedagogy, and assessment into the curriculum

In teaching any topic of our subject, we can highlight relevant local issues and link these issues to the global level. To examine these issues, we can use documentary evidence or bring our pupils to real-world situations so that they can observe, experience, and study the realities on the ground. We need to guide our pupils to examine these issues critically from different viewpoints and, if possible, think of ways to solve the problems. Our goal is to involve our pupils in helping to transform the problem situations around them.

2.1.2 Skills and Competencies Required for Global Citizenship

As global citizens, our pupils need to acquire the following skills and competencies:

Critical thinking
understanding of how one's behaviour at a local level can impact the global situation.

Respect for diversity
understanding of cultural differences and knowing how to adapt and value diverse experiences.

Empathy
cultivating tolerance, compassion, and motivation to help those in need.

Ability to act
participating actively in problem-solving at the personal, communal, or global level.

Solidarity
working together with others to improve a situation or problem-solve for the common good.

Figure 5: Skills and competencies required for global citizenship

With these skills and competencies, pupils can act responsibly at different levels: as an individual, in their family, in their school, in their local community, nationally, or globally.

2.1.3 Engaging the Three Domains of Learning

Very often we tend to focus our teaching on too much factual knowledge, sometimes to the extent of neglecting to develop the affective aspects of our pupils. Similarly, most of our pen-and-paper tests also only focus on cognitive learning and skills such as the ability to recall, analyse, and problem-solve on paper. Thus, our pupils tend to have poor soft skills and lack the ability to solve problems on the ground.

One way of helping our pupils become good global citizens is to expose them to real-life/ world situations so that they can learn how to inquire critically about the circumstances and context of such situations. They also need to learn how to exercise

empathy and manage bias when faced with a real-life situation. They are expected to contribute actively to problem-solving and participate in creating change.

Our teaching approaches should aim at the "*head, heart, hands, and being*". Teaching and learning GCED should be experiential, participatory, reflective, practical, and relevant. Besides knowledge, we should also teach skills and competencies, as well as inculcate the appropriate values and attitudes to be a good global citizen.

Learning impact is targeted not just at the cognitive domain, but also the affective and behavioural domains:

Cognitive Domain *(involving the intellect)*
Ability of pupils to understand, analyse critically, and apply knowledge creatively to resolve a problem situation.

Affective Domain *(involving emotions)*
Ability of pupils to interact, communicate, empathise, and handle problem situations in a balanced and peaceful manner.

Behavioural Domain *(involving behaviour)*
Pupils possess the competencies and skills to take action to improve a problem situation.
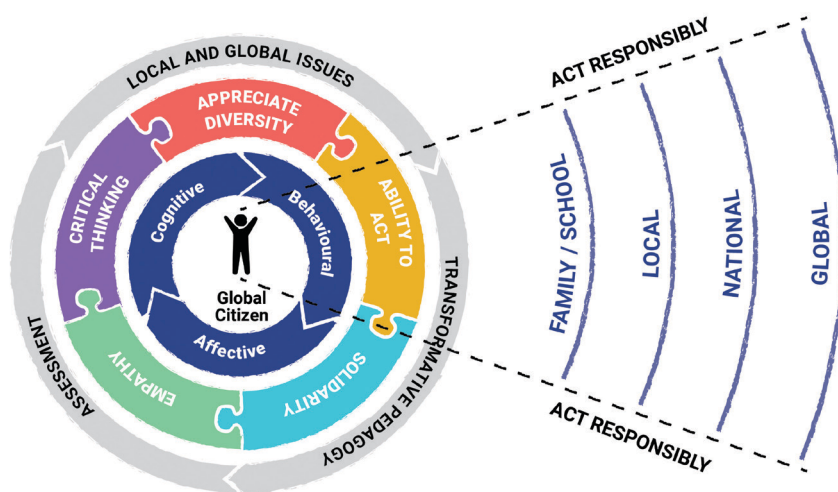
Figure 6: GCED engages the three domains of learning

Chapter 3

Preparing to Teach GCED

Image 6 (Top): Teachers receive an introduction to the history and development of their study site from a local tour guide.
Image 7 (Bottom): Teachers share their experience in project-based learning at an introductory workshop to GCED.

Chapter 03
Preparing to Teach GCED

After understanding the concept of GCED and its importance in the previous two chapters, we shall now learn how to integrate GCED into our daily teaching practice.

3.1 UNDERSTANDING GCED THEMES AND ISSUES

GCED does not introduce new content into the curriculum, but it requires us to take a broader perspective and re-contextualise the topics that we normally teach in school to take into account the current local and global issues and challenges our society faces. We also need to figure out what we need to do to manage or change the situation. Examples of global issues include disputes and conflicts, environmental degradation, climate change, ethnic, gender and religious discrimination, poverty, malnutrition, etc.

As such, to teach GCED, we must familiarise ourselves with pressing issues at the local and global levels, and know the causes and impacts of these issues. We could invite experts, and use films/videos, documentaries, articles, or other materials as a stimulus to introduce these issues to our pupils. We can also encourage our pupils to research the issue themselves online, on the ground, or even voice their own opinions on issues that concern them.

Some of the common GCED themes are as follows:

1. Cultural Diversity
2. Conflict and Peace-building
3. Justice and Human Rights
4. Environmental Sustainability
5. Health and Wellbeing

We can identify various current issues under each of these themes. Here are some examples of issues related to each theme.

CULTURAL DIVERSITY

Current Issues
- Lack of understanding of other cultures and their practices
- Prejudice towards and discrimination against:
  - Other cultural practices
  - Other ethnic groups
  - Other religions
  - Different physical and mental abilities

CONFLICT AND PEACE-BUILDING

Current Issues
- Bullying in school and cyberbullying
- Violence towards women and children
- Territorial, religious, or ethnic disputes
- Social disputes in the family, community, and workplace
- War between countries

JUSTICE AND HUMAN RIGHTS

Current Issues
- Unjust treatment of migrants and refugees
- Ethnic, religious, or gender discrimination
- Child labour

ENVIRONMENTAL SUSTAINABILITY

Current Issues
- Air and water pollution
- Environmental degradation
- Resource depletion
- Climate change
- Loss of biodiversity
- Overconsumption
- Food wastage
- Water and energy wastage
- Overdependence on single-use plastic

HEALTH AND WELL-BEING

Current Issues
- Obesity
- Poor diet and lifestyle
- Substance abuse
- Anxiety and depression
- Social isolation

Figure 7: Examples of current issues related to each GCED theme

A good understanding of the themes and issues above will help us identify which topics in the subject(s) we teach in school can be linked to which theme or issue. We can then map each of these themes and issues with the topics in our textbooks or syllabi.

3.2 APPROACHES TO DELIVER GCED IN SCHOOLS

As we already have many subjects in our school curriculum, it would be difficult to add another new subject, such as GCED. Therefore, we have to find ways to integrate GCED in the existing school subjects as well as in co-curricular activities. There are several ways we can achieve this:

Subject-based GCED Integration

In this approach, GCED knowledge, skills, and competencies are taught across the existing subjects. As teachers, we have to look for opportunities to cover the various GCED themes and issues when we teach our own subjects. As mentioned earlier, we have to identify the topics in our subjects that are related to each of these themes or issues to do so. This approach allows for GCED to be incorporated into daily lessons.

Project-based GCED Integration

Another approach – which is more learner-centred – is through project work, where we introduce pupils to a challenge or problem at the local level, be it in their home, school, or neighbourhood. We can guide our pupils to investigate the problem, its cause and impact on the community, and then facilitate them to design, develop, and implement solutions to the problem. This approach provides a hands-on and team-oriented learning opportunity.

Single-subject GCED project:

In this approach, we expand a subject topic into a mini project so that our pupils can develop some practical skills in research and inquiry, collaboration, communication and interaction, as well as management.

> ### *Interdisciplinary GCED project:*
>
> In this approach, we work together with other subject teachers in designing a GCED-themed project for pupils in the same class. For example, a project promoting inter-ethnic understanding among pupils may involve history, art, and language teachers contributing to activities such as collecting family migration stories, exchanging knowledge on cultural artefacts and their symbolism, and sharing proverbs.

> ### *Co-curricular GCED project:*
>
> In this approach, GCED-themed projects are carried out as part of co-curricular club activities. These projects will usually incorporate GCED knowledge and co-curricular skill sets to address a real issue. Examples of such projects are tree planting by the environmental club, clean environment campaigns by the art club, etc.

Incorporation into school culture would be the most holistic way of integrating GCED into teaching and learning. By embedding GCED in school policy, GCED can involve the whole school community – the head teachers, teachers, staff, pupils, and parents. This approach promotes the subject-based integration of GCED and GCED-themed projects, which are often carried out by teachers and pupils from all the different classes, e.g. a green school project, a school-wide healthy food campaign, or banning the use of plastic containers in school.

3.3 MAPPING THE CURRICULUM

When integrating GCED into our curriculum, it is important to consider the various GCED themes and how they relate to the subjects we teach at school. The following subjects in the Malaysian primary school curriculum offer ample opportunities for integrating GCED using a subject-based approach or a project-based approach:

- Malay Language (Bahasa Melayu)
- English
- History
- Science
- Design and Technology
- Visual Arts Education

When integrating GCED into the curriculum, we can use two entry points:

i) You can use a **subject topic that is linked to a GCED theme** as an entry point.

Entry Point through Subject Topic

Subject and Year	Subject Topic	GCED Theme	GCED Issue
History Year 6	Challenges towards the formation of Malaysia	Conflict and Peace-building	Regional Conflict
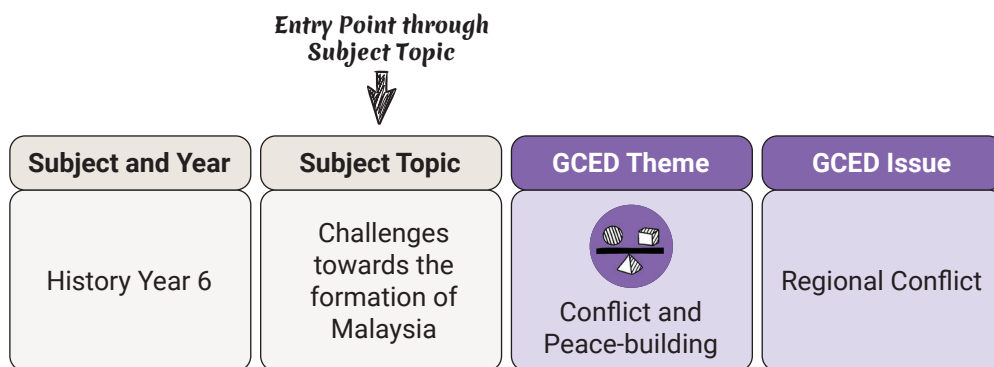
Figure 8: Integration of GCED using a subject topic as entry point

ii) Alternatively, you can use a **current issue** as an entry point. We can first identify a current issue that **aligns with a GCED theme**, and then match it with an appropriate subject topic.

Entry Point through Current Issue

GCED Issue	GCED Theme	Subject and Year	Subject Topic
Over-dependence on single-use plastic	Environmental Sustainability	Design and Technology Year 4	Packaging design
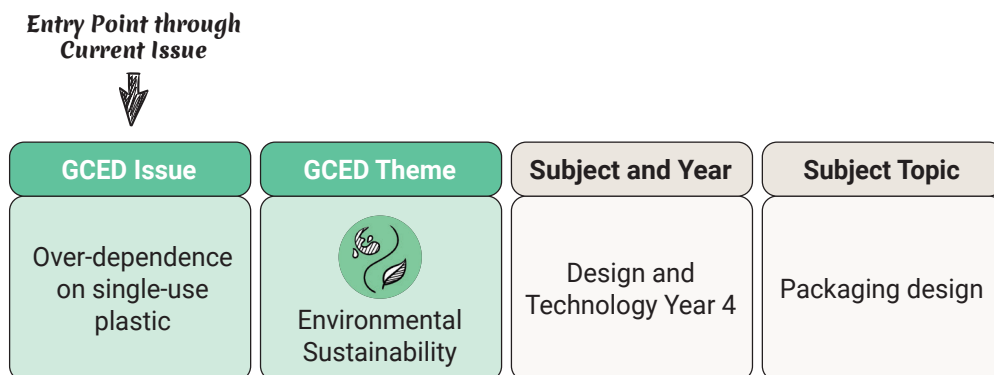
Figure 9: Integration of GCED using a current issue as entry point

We can use the first entry point if we are more familiar with our subject topics. However, if we feel strongly about specific current issues that we want our pupils to be aware of and act on, then we should use the second entry point.

One way to select a current issue that is relevant to your pupils' lives is to identify issues and needs in the community:

Tips for incorporating a current issue that is relevant to your pupils

- Identify important issues or needs in the communities near your school

- Integrate the issue or need into your teaching and learning activities

- When planning your lesson or project, consider what roles pupils can play in helping to address the issue or need

See Appendix B for more examples of GCED mapping and integration in different subjects

Lesson Planning

Image 8 (Top): Teachers collaborate on a lesson plan for project-based GCED integration.
Image 9 (Bottom): Teachers pilot and experience creative activities for teaching and learning.

Lesson Planning

> 66 We cannot **teach** another person directly;
> we can only **facilitate** [their] learning. 99
>
> - Carl Rogers

As mentioned, GCED is not taught as a standalone subject in our schools at the moment. Instead, we have to integrate a selected GCED issue into a relevant subject topic. The content for that particular topic is given in the syllabus, but we also have to incorporate GCED competencies into our lessons or projects. In this chapter, we focus on developing lesson plans with learning outcomes based on GCED competencies and designing appropriate activities to achieve these learning outcomes.

4.1 GCED COMPETENCIES

Let us examine the competencies across the three domains (cognitive, affective and behavioural) that we need to develop among our pupils when we integrate the various GCED themes and issues into our lessons or projects:

THEME	Global Citizenship Competencies based on Domain		
	Cognitive	Affective	Behavioural
Cultural Diversity	Understand the importance of cultural diversity. Able to understand similarities and differences between different cultures, religions, perspectives, and lifestyles.	Respect and appreciate different cultures, religions, perspectives, and lifestyles.	Be open-minded, sensitive, and inclusive towards different cultures, religions, perspectives, and lifestyles.
Conflict and Peace-building	Ability to understand the causes, dynamics, and consequences of conflicts.	Be open-minded, sensitive, and empathetic to different perspectives that cause conflict.	Ability to resolve conflicts peacefully by creating mutual understanding and trust.
Justice and Human Rights	Understand the universal values of justice, equality, and liberty and the importance of human rights.	Feel a sense of empathy and solidarity towards marginalised and oppressed groups or individuals.	Act responsibly and ethically to address injustice and discrimination against certain groups or individuals.
Health and Wellbeing	Understand the importance of physical, mental, and emotional health. Knowledge of strategies to maintain wellbeing and supportive social networks.	Develop self-esteem, sense of purpose, and meaning in life.	Ability to make informed decisions, self-manage, adapt to change, and practise a healthy lifestyle.
Environmental Sustainability	Understand the limits of natural resources and the effects of climate change. Knowledge of the consequences of human actions on other species and the environment.	Motivated to respect and care for ourselves, other species, and the environment.	Ability to take responsible action for protecting the environment for future generations. Ability to make informed decisions to practise a sustainable lifestyle.

Table 1: Global citizenship competencies based on three domains of learning for each theme

4.2 INTEGRATING GCED INTO SUBJECTS

We can integrate GCED while teaching our subjects or while carrying out our co-curricular activities and extra-curricular projects. We can also integrate GCED across the curriculum by doing team-teaching with our colleagues. Additionally, we can design GCED projects that may cover a few subjects such as Science, Moral Education, and English.

In planning our lessons or projects, we must not only deliver the knowledge on the topic but also encourage our pupils to think critically, analyse and reflect on their own values and behaviour, as well as motivate them to take action in improving the situation. Our lesson plans or project designs should cover the knowledge, values, and skills related to that particular GCED topic.

We can follow the steps below to develop a GCED-integrated lesson or project:

STEP 1
Map the subject topic with its related GCED theme and issue.

STEP 2
Identify how the GCED issue is relevant to pupils' daily life and determine a suitable question for pupils to investigate in the lesson or project.

STEP 3
Frame the learning outcomes based on the GCED competencies.

STEP 4
Design the lesson or project by incorporating learner-centred strategies that are aligned with the learning outcomes.

Figure 10: Steps to develop a GCED-integrated lesson or project

4.2.1 Subject-based GCED Integration

Example

History (Year 6)

This is an example of subject-based GCED integration that uses a topic from the Year 6 History curriculum and matches it to a GCED theme and issue. It is key to contextualise the GCED theme and issue to the lesson as well as the pupils' daily lives before we frame the learning outcomes and design the lesson.

STEP 1 **Map the subject topic with its related GCED theme and issue.**

Subject and Year	Subject Topic	GCED Theme	GCED Issue
History Year 6	Challenges towards the formation of Malaysia	Conflict and Peace-building	Regional Conflict

Figure 11: Mapping the subject topic with its related GCED theme and issue: Year 6 History lesson example

STEP 2 **Identify how the GCED theme is relevant to pupils' daily lives and determine a suitable question for pupils to investigate in the lesson.**

Contextualising GCED components to the lesson and pupils' lives			
GCED Theme	**GCED Context**	**GCED Discussion Point**	**Essential Question**
Conflict and Peace-building	During the formation of Malaysia, there was a regional political conflict involving neighbouring countries which resulted in confrontation. The GCED theme of conflict and peace-building highlights the importance of avoiding unnecessary harm by resorting to more peaceful resolutions.	Learning how conflicts can be managed peacefully and collaboratively	What was the importance of consensus-building and negotiation in the formation of Malaysia?
	What are the causes and effects of the GCED issue? How is the GCED issue connected to pupils' daily lives?	**What is the key GCED knowledge, skill, or value that pupils can develop?**	**What is the question that pupils will investigate in this lesson?**

Figure 12: Contextualising GCED components to the lesson and pupils' lives: Year 6 History lesson example

STEP 3 Frame the learning outcomes based on the GCED competencies.

Learning Outcomes (Cognitive)

1. Pupils are able to explain the challenges faced in the formation of Malaysia.
2. Pupils are able to analyse the pros and cons of an action.

Subject Topic:
Challenges towards the formation of Malaysia

GCED Theme:
Conflict and Peace-building

GCED Issue:
Regional Conflict
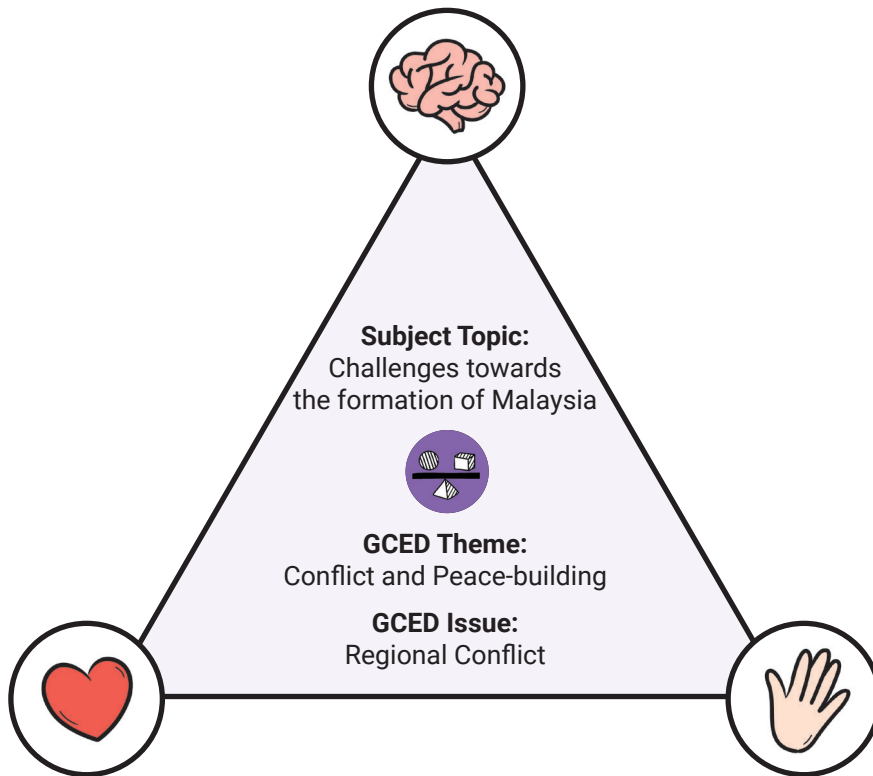
Learning Outcomes (Affective)

1. Pupils are able to approach a conflict calmly.

Learning Outcomes (Behavioural)

1. Pupils are able to approach a conflict situation through dialogue and discussion.

Figure 13: Framing the learning outcomes based on target GCED competencies:
Year 6 History lesson example

STEP 4 **Design the lesson by incorporating learner-centred strategies that are aligned with the learning outcomes.**

● **Set Induction: Who should get the object?**

A valuable object (e.g. a handphone) is placed in the centre of a circle. 5 pupils are asked to share their desperate need for the object. After their explanations, pupils are given five minutes to debate their needs with one another to decide who gets to keep the object.

● **Activity 1: Brainstorming**

Pupils brainstorm the challenges faced by Malaya from other countries in the formation of Malaysia.

● **Activity 2: What is your choice?**

In groups, pupils discuss each of the three strategies and what can be gained from each strategy to handle other countries' resistance to the formation of Malaysia: A (go to war), B (negotiate), or C (no action).

● **Activity 3: Presentation**

Pupils choose one strategy and present it to the class, providing clear reasons to support their choice.

● **Closing Activity: Reflection**

Pupils vote for the group(s) with the most peaceful strategy and the most harmful strategy.

● **Extension Activity:**

Pupils write down a conflict they have experienced outside of the classroom and how they addressed it for further discussion with the teacher and their peers.

See Appendix D for the detailed lesson plan and other sample lesson exemplars

4.3 INTEGRATING GCED INTO PROJECT-BASED LEARNING (PBL)

Compared to the subject-based integration of GCED, Project-based Learning (PBL) allows for more time and deeper exploration of GCED issues and the building of GCED competencies. The project-based integration of GCED engages pupils in real-world problems, where they investigate, analyse a situation, and generate ideas for solutions.

GCED projects can be based on a single subject, or they can be interdisciplinary, co-curricular, or involving the whole school. GCED projects would take more than one lesson and may involve a few sessions conducted after school or over the weekend.

Advantages of Project-based GCED Integration

- ☑ Prepare pupils to accept and explore new things, and also address challenges in the real world

- ☑ Enable pupils to obtain in-depth learning through continuous research and investigation

- ☑ Encourage pupils to solve problems critically and creatively

- ☑ Strengthen pupils' understanding of particular concepts or content in the curriculum

- ☑ Develop pupils' ability to collaborate and communicate effectively with others to solve problems

- ☑ Equip pupils with project management skills

- ☑ Empower pupils as innovative designers, creative communicators, and effective collaborators

Project-based Learning Cycle

The PBL learning cycle is a guide for us to plan our GCED project. Through the 4 phases in the learning cycle, pupils can connect what they learn in the classroom to what they observe or experience outside the classroom in real-world situations. Based on the evidence they have collected or on their experiences, they will reflect on their attitudes, values, and beliefs, and be motivated enough to either change their behaviours or take action to change the situation. We can arrange these phases in any order depending on our project needs.

Understanding Of Topic And Context
Pupils learn about a particular topic and its content.

Experience And Inquiry
Pupils investigate, explore, and interact in a real-life situation.

Critical Analysis And Reflection
Pupils analyse research findings and find solution.

Action
Pupils share findings or start taking small actions towards positive changes.
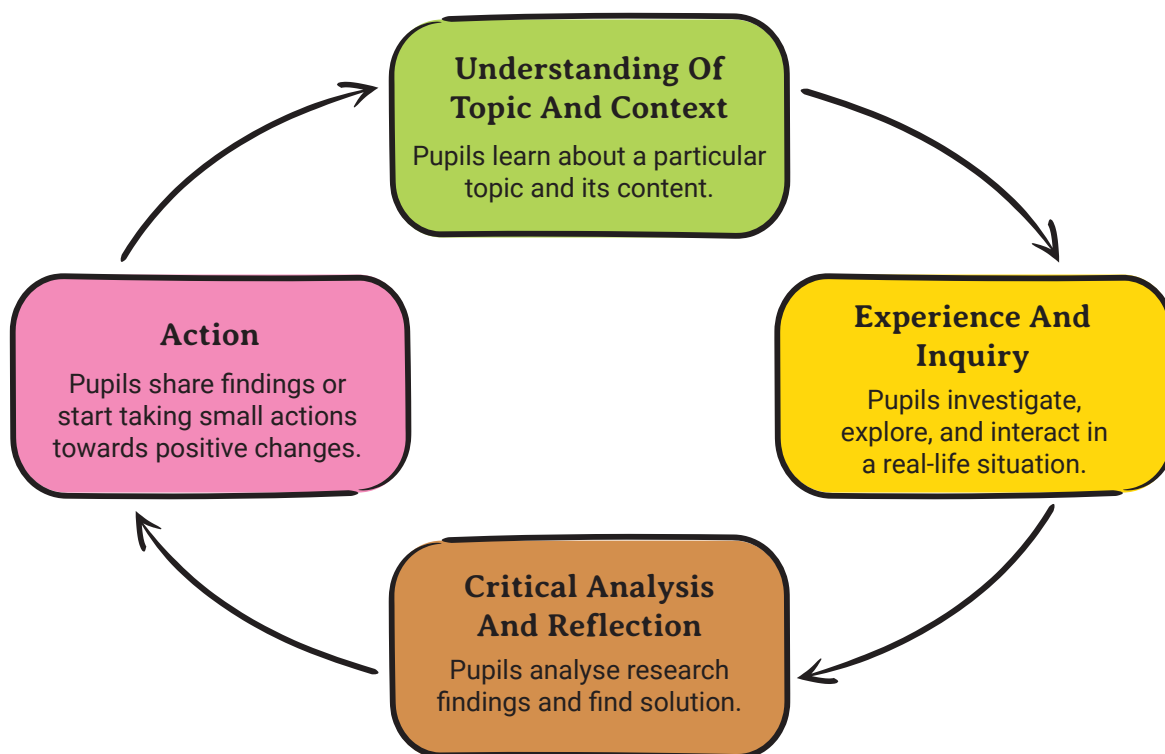
Figure 14: Four phases in the Project-based Learning cycle

We can follow the guidelines below to plan and implement each phase of our GCED projects:

Understanding Of Topic And Context	• Identify a GCED topic or issue that aligns with a topic in the syllabus of our subject. • Pupils research the topic and situation on their own, or are introduced to it by the teacher, community, or expert.
Experience And Inquiry	• Pupils explore the issue or problem by participating in an inquiry thatis based on real life. • Facilitate and engage pupils in collaborative activities to collect data or evidence on the problem or situation. • These activities may use multimedia including observations, interviews, hands-on experiences, and online research.
Critical Analysis And Reflection	• Pupils share and process data, and critically analyse the information collected. • Pupils brainstorm ideas or solutions.
Action	• Pupils act on the problem. They collaborate to devise real solutions such as journals, exhibitions, tangible products, or online advocacy campaigns that can help to bring change among the public or community. • Pupils may also act by changing their personal behaviour. • Pupils reflect on their own learning.

4.3.1 Project-based GCED Integration

Example Science and English (Year 4)

This is an example of PBL where a Science teacher and an English teacher came together to design a project that focuses on the issue of unhealthy eating habits. They designed the project by relating the issue to their respective subject topics, and each carried out different parts of the project with the same group of pupils over 4 weeks.

STEP 1 Map the subject topic with its related GCED theme and issue.

Subject and Year	Subject Topic	GCED Theme	GCED Issue
Science Year 4	Excretion and Defecation	Health and Wellbeing	Unhealthy eating habits
English Year 4	Healthy Plate		

Figure 15: Mapping the subject topic with its related GCED theme and issue: Year 4 Science and English Language project example

STEP 2 Identify how the GCED theme is relevant to pupils' daily lives and determine a suitable question for pupils to investigate in the lesson.

Contextualising GCED components to the lesson and pupils' lives			
GCED Theme	GCED Context	GCED Discussion Point	Essential Question
Health and Wellbeing	A healthy defecation system is key to ensuring a healthy body and a healthy diet is essential to ensure our defecation system functions well. By cultivating pupils' awareness of the importance of healthy eating habits and their ability to practise a healthy diet, we can help prevent health-related problems.	Learning to make informed eating choices that will help ensure a healthy body	How can healthy eating habits help ensure a healthy defecation system?
	What are the causes and effects of the GCED issue? How is the GCED issue connected to pupils' daily lives?	**What is the key GCED knowledge, skill, or value that pupils can develop?**	**What is the question that pupils will investigate in this lesson?**

Figure 12: Contextualising GCED components to the lesson and pupils' lives: Year 6 History lesson example

STEP 3 **Frame the learning outcomes based on the GCED competencies.**

Learning Outcomes (Cognitive)

1. Pupils can discuss at least 2 good dietary practices that can help the body's defecation system.
2. Pupils can explain the effects of poor dietary practices on the body's defecation system.
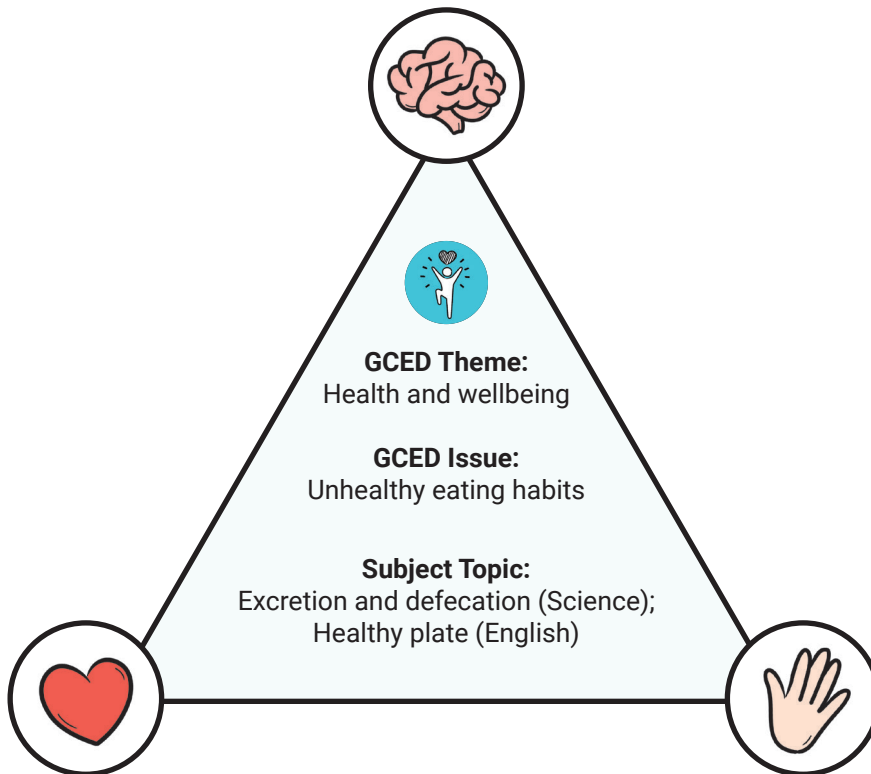
GCED Theme:
Health and wellbeing

GCED Issue:
Unhealthy eating habits

Subject Topic:
Excretion and defecation (Science);
Healthy plate (English)

Learning Outcomes (Affective)

1. Pupils are able to openly discuss their defecation and eating habits with their peers.

Learning Outcomes (Behavioural)

1. Pupils choose healthy foods high in fibre, demonstrating their commitment to good health practices, for a week.

Figure 17: Framing the learning outcomes based on target GCED competencies:
Year 4 Science and English Language project example

STEP 4 — Design each phase of the project by incorporating learner-centred strategies that are aligned with the learning outcomes.

> **Understanding of Topic and Context**

Science | **Brainstorming**

1. Pupils brainstorm the importance of the defecation system in removing toxins, balancing bodily fluids, and regulating blood pressure.
2. Pupils brainstorm and share ideas on how to prevent constipation through dietary changes and lifestyle habits.

English | **Drafting and conducting a mini survey**

Pupils work individually or in pairs to draft survey questions that explore how eating habits influence the digestive system.

> **Experience and Inquiry**

English | **Creating a visual journal and healthy plate**

1. Creating a visual journal to document daily eating habits through sketches or drawings accompanied by captions.
2. Creating and designing a healthy plate using local dietary habits and ingredients.

> **Critical Analysis and Reflection**

English | **Analysis, reflection, hypothesis, and discussion**

1. Pupils reflect on the findings from their visual journal regarding their daily eating habits and discuss the similarities and differences in eating habits among their peers.
2. Pupils discuss how different food choices impact their digestive system.
3. Pupils come up with a hypothesis on how their healthy plates will change their defecation habits.

Science and English | **Reflection**

Pupils reflect and improve on their eating habits based on the findings from their visual journal.

> **Action**

Science and English | **Creating a healthy plate and visual journal**

Pupils practise creating a healthy plate and record their meals in a visual journal individually.

Science and English | **Presentation**

Pupils showcase the causes, effects, and solutions related to eating habits based on the defecation system

See Appendix D for the detailed lesson plan and other sample lesson exemplars

Paradigm Shift in Teaching and Learning

Image 10 (Top): Learners listen to views from the local community while on a field visit.
Image 11 (Bottom): Learners interview a fishmonger at a wet market.

Chapter 05 — Paradigm Shift in Teaching and Learning

5.1 TRANSFORMATIVE PEDAGOGY

GCED encourages us to apply transformative pedagogy as an approach to teaching, learning, and assessment. We need to make a paradigm shift in our roles as teachers to become agents of change. Not only do we need to change ourselves, but also others and society. We also need to change our approach to teaching from teacher-centred to learner-centred. We should place our pupils at the centre of our lessons and involve them actively in the learning process. We should also engage their heads, hearts, hands, and beings through our GCED lessons or projects.

Transformative pedagogy goes beyond completing the syllabi and passing examinations. It also aims at developing our pupils to become caring individuals and responsible citizens, who can help build a better and just society. It enables our pupils to critically examine problem situations and to identify some of the factors causing the problems. It also encourages our pupils to self-reflect and to:

> *become more aware of the context of their [own personal] problematic understanding and beliefs, more critically reflective on their assumptions and those of others, more fully and freely engaged in discourse, and more effective in taking action on their reflective judgement.*

(Mezirow, 2000, p.31)

We need to develop our pupils in all aspects of their lives including intellect, spirit, emotions, and physical health. We need to produce citizens who are knowledgeable, competent, and have high moral standards. Besides helping our pupils to know more about and be more aware of local or global issues, we also need to inculcate universal values and cultivate positive attitudes and appropriate behaviours among our pupils. GCED is a holistic approach that engages the cognitive, affective, and behavioural domains of our pupils.

Cognitive Learning

In general, we tend to focus much of our teaching on knowledge and the development of intellectual skills, which include the recall or recognition of specific facts and concepts and the analysis of some given situations. But in using transformative pedagogy, we need to encourage our pupils to connect the knowledge acquired to a real context, examine the variables in the real situation, and apply critical and creative thinking to innovate or to improve the situation if necessary.

Affective Learning

Using transformative pedagogy, we encourage our pupils to engage and interact with the community, to listen to different viewpoints, and to respect diversity. We encourage our pupils to reflect on their own attitudes, emotions, and responses to people and situations, and to develop their self-awareness, social awareness, as well as their communication and relationship skills.

Behavioural Learning

In transformative pedagogy, we hope that our pupils will develop decision-making skills and take responsible action within their capacity to improve a problem situation.

"Transform" means "change". In short, transformative pedagogy means changing our roles as teachers to be agents of change. By changing ourselves, we can change others around us and society. Our goal is to develop our pupils to be all-rounded individuals and responsible citizens. Together we can make our world a better, cleaner, and safer place.

Transforming the Pupil
- Engage head, heart, hand, and being
- Motivated and prepared to act

Transforming the Classroom
- Learner-centered
- Active participation by all pupils

Transforming the Community
- Stronger social network
- A better and more just society

Teacher as global citizen

Teacher as facilitator

Figure 18: GCED as transformative pedagogy means transforming the teacher, the classroom, the pupil, as well as the community

5.2 SOME TRANSFORMATIVE, LEARNER-CENTRED PEDAGOGICAL STRATEGIES

Transformative pedagogy requires us to encourage our pupils to construct their own knowledge through active participation and self-directed learning. We should provide our pupils with opportunities to explore, investigate, interact, and take action in the context of the real environment to solve issues.

The following are some general guidelines to help us design transformative, learner-centred pedagogical strategies:

- Design activities that **provide opportunities** to all our pupils for active participation.

- Strengthen our pupils' agency by giving them **voices and choices**.

- Design activities that promote relational engagement and **building connections** such as learner-to-learner, learner-to-instructor, and learner-to-content engagement.

- Design **individualised** and **group study** programmes.

- Use **popular culture** and **community exposures** to introduce GCED themes, topics, and issues to our pupils.

- Include **community engagement and immersion** as a co-curricular component of teaching GCED to our pupils.

- Use **arts-based activities** and **creative pedagogies** as tools to demonstrate and deliver GCED themes and topics.

- Use **ICT and digital media**.

Tips **for the Implementation of Teaching and Learning Strategies to Support Transformative Pedagogy**

- Teaching and learning strategies need to be carefully selected and aligned with learning objectives

- Strategies can be used in classroom subject teaching or in project-based learning (longer periods inside and also outside of classroom lessons)

- You may use one or more learner-centred strategies at any one time

We can use various learner-centred strategies to integrate GCED into our subjects or co-curricular activities, namely collaborative learning, experiential learning, contextual learning, and inquiry-based learning.

Collaborative Learning
Pupils take on responsibilities, share through discussions, and evaluate different opinions and perspectives.

Experiential Learning
Pupils explore and interact with their surroundings through hands-on activities.

Contextual Learning
Pupils connect lessons to their daily lives and apply what they have learned to real contexts.

Inquiry-based Learning
Pupils investigate, collect data, and interpret data critically, to apply the knowledge and skills learned to new situations.

Figure 19: Learner-centred strategies for integrating GCED

In using any of the strategies above, we can use various methods that suit pupils' learning styles and allow pupils to demonstrate their learning through different media:

Multimodal Methods

Examples:

V*isual*

Mapping, Exhibition, Drawing, Sketching, Storyboard/Object creation, Analysis of photos/videos

A*uditory*

Brainstorming, Discussion, Show-and-tell, Presentation, Debate, Interview, Storytelling

R*eading/Writing*

Writing or reading essays/stories/articles/novels/magazines/comics, Data analysis, Inventory-making, Reflection writing

K*inaesthetic*

Demonstration, Drama, Skit, Role-play, Conflict Simulation, Games

5.3 TRANSFORMATIVE PEDAGOGY IN ACTION

When we introduce GCED to our pupils, we need to make some changes in our teaching and learning strategies. We have to shift our teaching and learning from the classroom to the community, and from instructive learning to constructive learning.

Constructive Learning

1. Self-directed learning by pupils
2. Experiential and contextual learning
3. Critical analysis and problem-solving
4. Cognitive, affective, and behavioural engagement

Classroom ⟶ **Community**

1. Teacher-centred
2. Instructive and textbook learning
3. Passive acquisition of knowledge
4. Cognitive engagement only

Instructive Learning
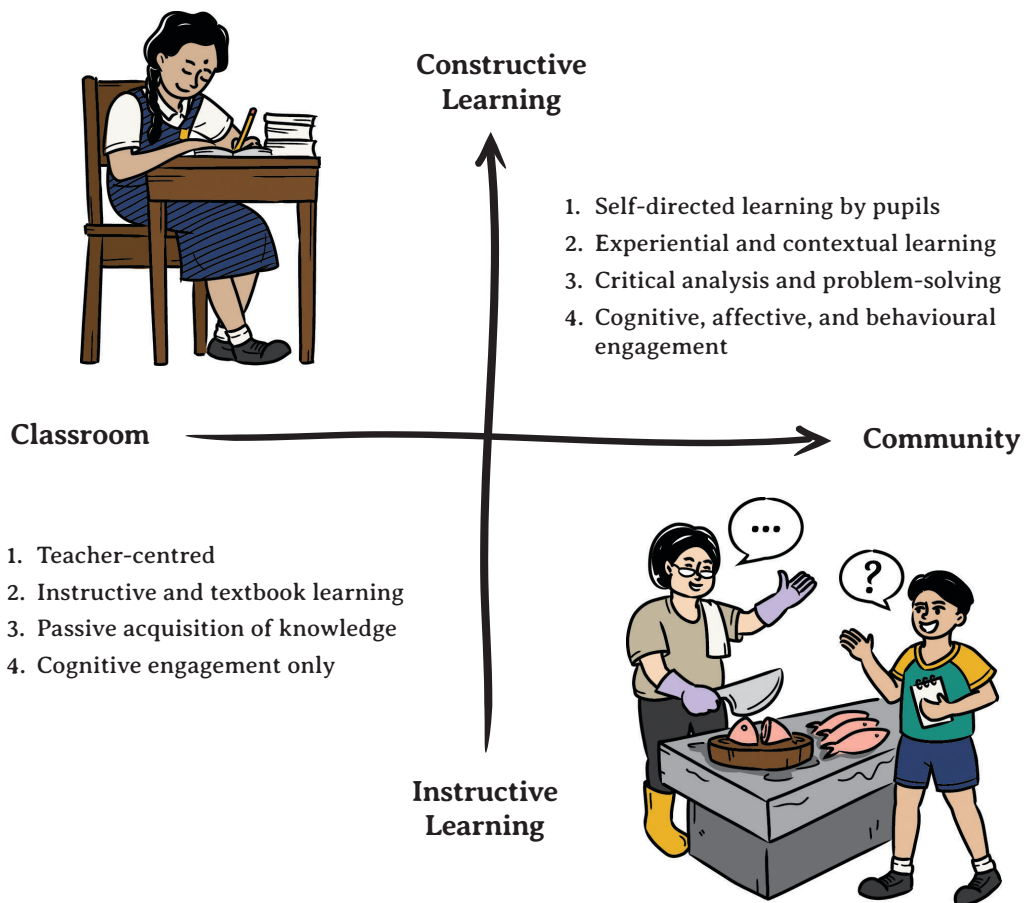
Figure 20: A paradigm shift in teaching and learning from classroom to community, and from instructive to constructive learning

In the case study below, the teacher shifted from being teacher-centred to learner-centred by involving her pupils actively in the project. Besides relying solely on textbooks and restricting teaching and learning to the classroom, she took her pupils out beyond the school walls to learn from the community through experiential and contextual learning. She also used inquiry-based learning to develop critical analysis and problem-solving skills among her pupils. Pupils were engaged cognitively, affectively, and in a behavioural manner as they investigated how everyday lifestyle choices can contribute to marine pollution.

Example | **Marine Pollution Awareness**

Relevant Subject: Science (Year 6)
School: SJK(C) Chung Hua Musi, Sarawak

This is a single-subject GCED project where the teacher used the issue of marine pollution as an entry point. She chose this issue because she noticed that throwing away trash irresponsibly is a common practice, and her pupils do not understand how their daily decisions can have an environmental impact.
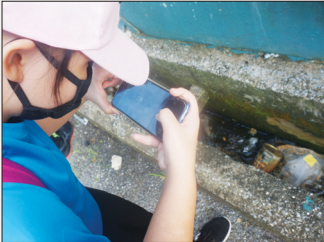
THEME	Global Citizenship Competencies based on Domain		
	Cognitive	**Affective**	**Behavioural**
Environmental Sustainability	Understand the limits of natural resources and the effects of climate change. Knowledge of the consequences of human actions on other species and the environment.	Motivated to respect and care for ourselves, other species, and the environment.	Ability to take responsible action for protecting the environment for future generations. Ability to make informed decisions to practise a sustainable lifestyle.

Table 2: Targeted global citizenship competencies in the Marine Pollution Awareness project

Here are some activities adapted from the teacher that target the competencies mentioned above:

Cognitive	Affective	Behavioural
ONLINE RESEARCH Pupils searched online for further information about the causes and effects of marine pollution. 🔍 *Inquiry-based Learning*	**COMMUNITY INTERVIEW** Near the beach, pupils interviewed fisherfolk about how marine pollution affects their lives and livelihoods. 🔍 *Inquiry-based Learning* 🌐 *Contextual Learning* ✋ *Experiential Learning*	**BEACH CLEAN-UP** *Image 13: Learners clean up the beach.* At the end of their field trip, pupils practised taking responsibility and helped clean up the beach. 🌐 *Contextual Learning* ✋ *Experiential Learning*
ONSITE INVESTIGATION *Image 12: Learners took photos of the trash found.* Pupils went to a nearby neighbourhood to trace how trash that is not properly thrown away can end up in drains, flow into a river and then into the ocean. Group members took on different roles such as taking photos, recording videos, and jotting down observation notes. 🔍 *Inquiry-based Learning* 🌐 *Contextual Learning* ✋ *Experiential Learning* 🖐 *Collaborative Learning*		

Photos Credit: Michelle Lim Chia Wun

Table 3: Activities that aimed to develop the targeted global citizenship competencies in the Marine Pollution Awareness project

Assessment of GCED Learning
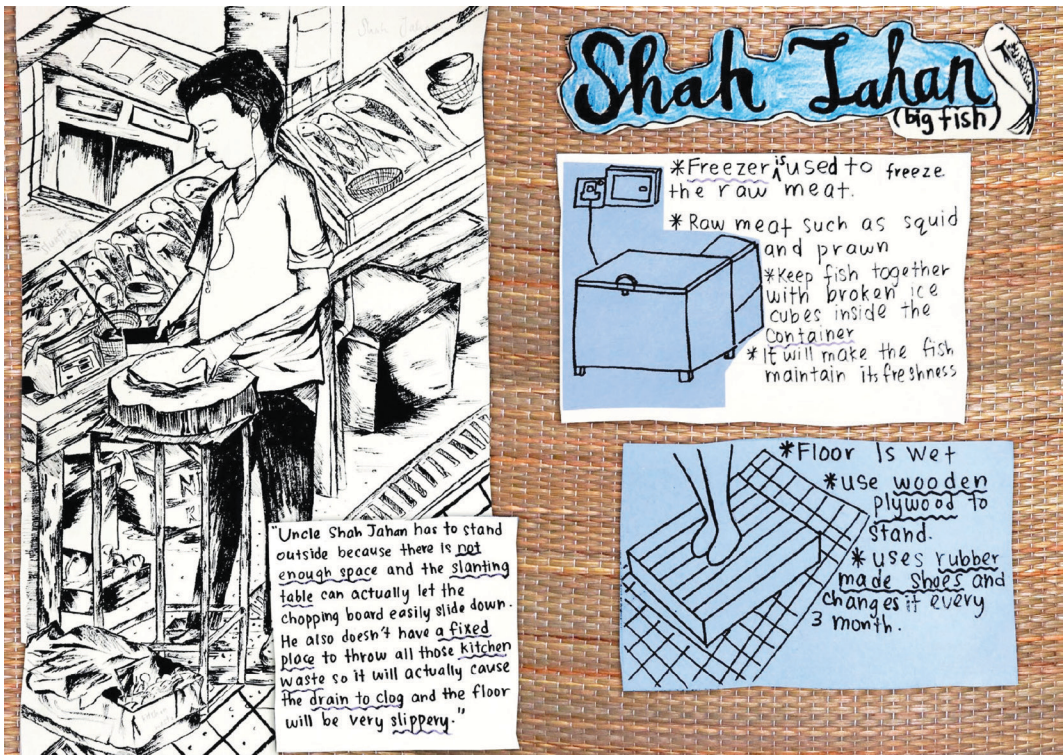
Image 14 (Top): Learners explain about their photo essay on local trades displayed at a school-based exhibition.
Image 15 (Bottom): A learner's reflections on ergonomics at the marketplace using illustration and text.

06 Assessment of GCED Learning

6.1. TYPES OF ASSESSMENT

Generally, 3 types of assessment methods can be used to assess GCED learning, namely diagnostic, formative, and summative.

Diagnostic Assessment

We use diagnostic assessment to identify our pupils' knowledge about the subject topic and the GCED theme or issue, as well as their attitudes, values and behaviour at the beginning of a lesson. We need to know our pupils' strengths and weaknesses before we plan what to teach and how to teach.

Formative Assessment

We use formative assessment to obtain feedback and information during our lessons or projects while learning is taking place. We use this method to measure our pupils' engagement in the GCED content or activity, as well as their progress in terms of understanding or capabilities.

Summative Assessment

Summative assessment usually takes place at the end of our lessons or the completion of our projects. We use this method to obtain feedback and information that sums up the learning process, that is, to evaluate what our pupils have learnt and to what extent our learning objectives have been achieved.

Usually, we develop a set of standards, expectations, and criteria, known as an **assessment rubric** to carry out our assessment. The assessment rubric will guide us to assess the level of our pupils' performance based on specific criteria. In the case of GCED, our assessment rubric should consist of the three domains of learning as we need to evaluate our pupils' learning in terms of knowledge, skills and values. As such, a GCED assessment supplements classroom assessment (*Pentaksiran Bilik Darjah*) but does not replace it.

Our GCED assessment rubric should consist of 3 important elements as follows:

Criteria: As GCED encourages holistic learning, we need to evaluate the 3 domains of learning, i.e. the cognitive, affective, and behavioural domains.

Level: We need to evaluate our pupils' level of performance based on each of these criteria, i.e. high, moderate, or poor level of achievement.

Descriptor: We need to list out the performance indicators which describe the level of mastery that our pupils have achieved in each of the learning domains.

Learning Domains as Criteria	High Level of Achievement	Moderate Level of Achievement	Low Level of Achievement
Cognitive	• high understanding of the content • able to think critically and analyse well • able to problem-solve	• moderate understanding of the content • able to think critically and analyse, but to a lesser level • moderate ability to problem-solve	• poor understanding of the content • poor ability to think critically and analyse • poor ability to problem-solve
Affective	• displays values of openness, respect, empathy • demonstrates skills in communication, collaboration, self-awareness, and management of emotions	• moderate display of values of openness, respect, empathy • moderate demonstration of skills in communication, collaboration, self-awareness, and management of emotions	• poor display of values of openness, respect, empathy • low demonstration of skills in communication, collaboration, self-awareness, and management of emotions
Behavioural	• is motivated to develop solutions • takes initiative to execute responsible action	• moderate motivation to develop solutions • demonstrates moderate initiative to execute responsible action	• poor motivation to develop solutions • takes little or no initiative to execute responsible action

Table 4: Example of assessment rubric for GCED

In GCED, we not only foster a strong understanding of local and global issues in our pupils, but we also inculcate among them attitudes and values that can help overcome the challenges that humans and the planet are facing today. We have to select which content to focus on in our lesson or project, and what activities/tasks to give so that our pupils will be able to gain not just knowledge, but also the right attitudes and values that would challenge common biases and prejudices. Then, we use summative assessment to check if our pupils have understood the issues related to the selected topic. We can also use pre- and post-formative assessments to see if our pupils have changed their attitudes and values which would motivate them to act accordingly.

To sum things up, we need to assess the following knowledge, attitudes, and values among our pupils when we teach GCED:

Knowledge	• Understanding of local and global issues such as pollution, climate change, violence, and discrimination. • Understanding of the concept of globalisation (interdependence and interconnectedness) and the importance of local action.
Attitudes	• Developing an understanding and respect for diversity and multiple layers of identity, such as national, religious or ethnic identity. • Developing an understanding of and a sense of belonging to the global community.
Values	• Understanding and practising universal values such as justice/fairness, equality, dignity, and respect for all humans and living things.

We also need to foster certain skills and competencies among our pupils to prepare them to be responsible global citizens. We have to identify a set of skills, and plan and carry out the relevant activities to help our pupils to develop these skills over a period of time (in a term/semester). We can then use formative assessment to see if our pupils have acquired the targeted skills or competencies.

> ### Examples of GCED skills or competencies to be assessed
>
> **Cognitive Skills**
> - Can our pupils think critically, systematically, and creatively?
> - Can our pupils understand and accept different perspectives or different viewpoints?
> - Can our pupils reason and problem-solve?
>
> **Socio-emotional Skills**
> - Can our pupils work with others respectfully and peacefully?
> - Can our pupils empathise with the situation of others?
> - Can our pupils communicate their feelings?
> - Can our pupils interact effectively with people from different backgrounds?
>
> **Behavioural Skills**
> - Have our pupils developed the capacity to collaborate with others?
> - Can our pupils make well-informed decisions?
> - Can our pupils take responsible and committed action?

We need to identify our learning outcomes, activities, and assessment in our lesson plans. We also need to decide whether to target the 3 domains in 1 lesson or different domains in different lessons. Project-based learning makes it easier because we can target different domains through different activities across several sessions.

6.2 ASSESSMENT TECHNIQUES AND TOOLS

We should be mindful of how we select or design assessment techniques as some techniques may be more useful in certain situations than others. Diagnostic, formative, and summative assessments may each use different techniques. Some techniques are more suited to evaluating the cognitive domain, while others may work better to evaluate the affective or behavioural domains. Also, we can use either group or individual assessments depending on our learning objectives and strategies. We often carry out diagnostic or summative assessments on our pupils but sometimes we can let our pupils evaluate their own learning through self- or peer assessment.

The various techniques that are commonly used for the different types of assessments are listed below:

Types of Diagnostic Assessment	Types of Formative Assessment	Types of Summative Assessment
• Pre-tests (on content and abilities) • Self-assessments (identifying skills and competencies) • Discussion board responses (on content-specific prompts) • Brief interviews with each pupil • Focus group interviews • Quizzes	• Observations of pupil's participation during in-class activities • Reflection and feedback from pupils at the end of lessons or project activities • Formal and spontaneous question-and-answer sessions • In-class activities where pupils informally present their results or feedback • Self-evaluation or peer evaluation of progress • Flipped classroom exercises to review learning • Reflection journals that are reviewed periodically	• Final examination • Final assignments • Final journals or portfolios • Performances or exhibitions • Problem-solving action or innovation

Adapted from Northern Illinois University Center for Innovative Teaching and Learning (2012)

Table 5: Techniques commonly used for different types of assessment

6.3. SAMPLES OF ASSESSMENT TOOLS

6.3.1 Diagnostic Assessment Tools

Sample 1: **Diagnostic Assessment Tool**

Topic: Intercultural Social Interaction
Mode: Pupil self-assessment checklist

Learning Domains		YES	NO
Behavioural	I visit the homes of pupils from other cultures	☐	☐
	I have friends from other cultures	☐	☐
Affective	I am very comfortable mixing with peers from other cultures	☐	☐
	I like it when pupils from other cultures want to partner with me	☐	☐

Figure 21: Sample 1 – Diagnostic assessment tool

Sample 2: **Diagnostic Assessment Tool**

Topic: Conflict and Violence
Mode: Warm up Visual
Instructions: Use **red stickers** to indicate countries you know of that are currently experiencing war.
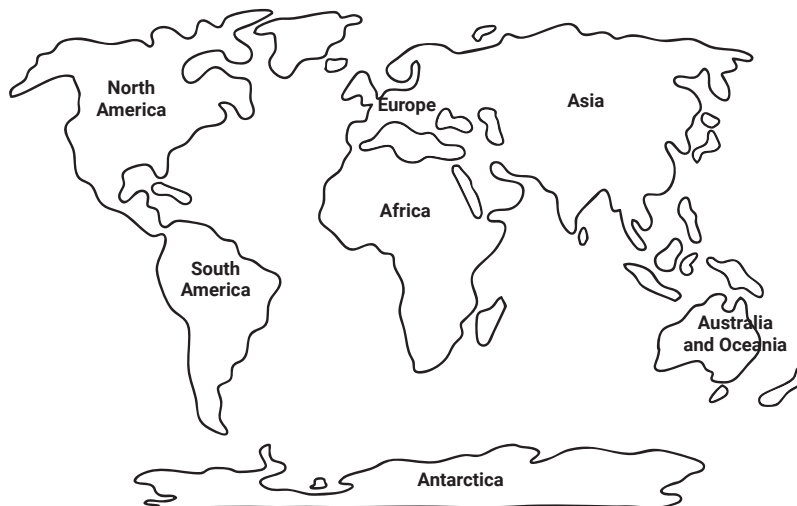
Figure 22: Sample 2 – Diagnostic assessment tool

6.3.2 Formative Assessment Tools

Sample 1: Formative Assessment Tool

Topic: Single-use plastic - straws (Behavioural Domain)
Mode: Speaking and listening among peers

Pupils work in pairs to ask each other questions using the *"Duck beak origami"* which has embedded questions. Pupils assess their partner based on the number of positive and negative answers.

(Pushkin, 2020)

Figure 23: Sample 1 – Formative assessment tool

Sample 2 : Formative or Summative Assessment Tools

Topic: Any topic(s)

Mode: Select different Modes - Visual, Auditory, Reading/Writing, Kinaesthetic (V-A-R-K)

Examples of **V**isual Assessment Instruments	
Infographic	**Concept Mapping**
Pupils design an infographic to summarise their understanding of a particular topic visually.	Pupils create a visual concept map to organise information.

Examples of **A**uditory Assessment Instruments	
Think - Pair - Share	**Podcast / Video**
Pupils think about the question given, discuss it with their partner, and then share with the class.	Pupils create a podcast or video about what they have learnt and what they are curious about.

Examples of **R**eading/Writing Assessment Instruments	
3-2-1 Exit Slip	**Reflective Journal**
Pupils write down 3 things that they have learnt, 2 things they find interesting, and 1 question they are curious about.	Pupils keep a journal to reflect on their learning process.

Examples of **K**inaesthetic Assessment Instruments	
Roleplay	**Games**
Pupils take on the characters and behaviours of stakeholders and improvise on a given situation, such as decision-making and conflict management.	Pupils engage in a physical activity or sport that involves specific skills, knowledge, or chance guided by certain rules.
	e.g. Game Of Four Corners
	Pupils move to one of four corners of the room to indicate their opinion or answer to the question asked.

Table 6: Sample 2 – Formative or summative assessment tools

6.3.3 Summative Assessment Tools

Sample 1 Summative Assessment Tool

Topic: Cultural Diversity

Mode: Teacher observation checklist

Learning Domains	Indicators	High	Moderate	Low
Affective	Pupil appreciates and respects different cultural practices.			
	Pupil empathises with cultural groups that are often stereotyped.			
Cognitive	Pupil understands cultural diversity and its occurrence in relation to adaptation to place and history.			
	Pupil is able to communicate with pupils from other cultural groups effectively using a common language.			
Behavioural	Pupil is interested to conduct research on other cultures.			
	Pupil is willing to collaborate on cross-cultural assignments.			

Table 7: Sample 1 – Summative assessment tool

Sample 2 : Summative Assessment Tool - Peer Assessment

Topic: Health & Wellness

Mode: Peer Evaluation - Interview and Writing

Invite pupils to identify 2 things their partner has done well in and 1 area for improvement.

Figure 24: Sample 2 – Summative assessment tool

Appendix

Appendix A: Elaboration of GCED Themes

CULTURAL DIVERSITY

Importance of the theme:

- To understand the importance of respecting and appreciating different cultures, religions, perspectives, and lifestyles.
- To encourage a deeper understanding of different cultures and nurture a sense of unity in diversity.

Example Issues	Example Topics
• Prejudice • Discrimination • Stereotypes • Racism • Communication gaps • Lack of awareness and under-standing of other cultures • Marginalisation of Indigenous cultures • Migration • Cultural heritage conservation	• Understanding of countries, communities, and cultures around the world • Respect and appreciation of diversity and differences • Learning to live and work together • Understanding of common values • Inclusivity • Cultural celebrations • Tolerance and acceptance • Cultural diversity in society • National identity

Table A1: Example issues and topics in the Cultural Diversity theme

CONFLICT AND PEACE-BUILDING

Importance of the theme:
- To develop the ability to resolve conflicts peacefully through building mutual trust and empathy
- To empower pupils to contribute to creating a culture of peace

Example Issues	Example Topics
• Poverty • Violence and non-violence • Hunger • Discrimination • Human rights • War and justice • Humanitarian crisis • Barriers to conflict resolution • Regional conflict • Violence and extremism • Migration and forced displacement • Political instability • Bullying • Cyberbullying and cyber safety	• Peace-building initiatives • The role of education in peace-building • International organisations • The role of media in shaping perceptions of conflicts • Interfaith dialogue • Sources of conflict (information, values, interests, relationship, structure) • Ethnic conflict • Dynamics of conflict • Environment and conflict • Gender-based conflict • Micro-aggression

Table A2: Example issues and topics in the Conflict and Peace-building theme

JUSTICE AND HUMAN RIGHTS

Importance of the theme:

- To understand the importance of respecting every individual regardless of gender, age, ethnicity, and background.
- To feel a sense of empathy and solidarity towards marginalised and oppressed groups or individuals.

Example Issues	Example Topics
• Freedom of expression • Freedom of religion • Gender inequality • Refugee crisis • Poverty and inequality • Corruption • Human trafficking • Detention without trial • Torture • Violence against women and children • Discrimination based on race, religion, or cultural background • Child labour and exploitation	• Rights and responsibilities • Children's rights • Workers' rights • Rights of people with disabilities • Senior citizens' rights • Migrants' rights • Right to vote • Right to privacy • Right to quality education • Right to healthcare • Equality before the law • Women empowerment • Indigenous peoples' rights

Table A3: Example issues and topics in the Justice and Human Rights theme

ENVIRONMENTAL SUSTAINABILITY

Importance of the theme:
- To understand the limits of natural resources and the effects of climate change.
- To act responsibly, with respect and care for ourselves, other species, and the environment.

Example Issues	Example Topics
• Biodiversity loss • Deforestation • Irresponsible human behaviours • Pollution (air, water, soil, plastic, industrial, etc.) • Greenhouse gas emission • Depletion of natural resources • Unequal distribution of resources • Extreme weather events • Malnutrition • Climate refugees • Overdependence on single-use plastic • Greenwashing • Unethical supply chains • Overfishing • Fast fashion	• Wildlife conservation • Carbon footprint • Waste generation and management • Use and conservation of resources like energy and water • Pollution • 6R – Rethink, Reject, Reduce, Reuse, Repair, Recycle • Natural resource management • Land use • Environmental conservation • Sustainable agricultural practices • Sustainable city • Environmentally-friendly technology • Sustainable transportation • Renewable energy • Sustainable tourism

Table A4: Example issues and topics in the Environmental Sustainability theme

HEALTH AND WELLBEING

Importance of the theme:
- To understand the importance of physical, mental, and emotional health.
- To be able to make informed decisions and self-manage to practise a healthy lifestyle.

Example Issues	Example Topics
• Mental health and illnesses • Smoking and vaping • Lack of physical activity • Obesity • Fall and injury • Environmental quality • Unhealthy or unhygienic habits • Global health inequalities • Infectious diseases • Access to healthcare • Dietary choices • Imbalanced lifestyle	• Sleep quality • Healthy relationships • Work and occupations • Food and nutrition • Spiritual and religious beliefs • Hobbies and recreational activities • Self-esteem • Sense of purpose and meaning • Sense of belonging • Life in a just and democratic society • Food security • Ageing population • Healthcare infrastructure • Global disease control • Disease prevention and control • Health education • Diet and health

Table A5: Example issues and topics in the Health and Wellbeing theme

Appendix B: Examples of GCED Integration into Various Subjects

The following examples serve to provide ideas for integrating GCED into various subjects in Years 4, 5, and 6. The examples are categorised according to the five GCED themes. Teachers can find inspiration in the different ways of linking GCED issues with subject topics as well as the suggested activities used to address the GCED discussion points.

Theme: CULTURAL DIVERSITY						
Subject	**Year**	**Subject Unit and Topic**	**GCED Issue**	**GCED Discussion Point**	**Suggested Activity**
Design and Technology	4	Reka Bentuk Makanan	Loss of cultural significance in the food design of various ethnic groups	Understand different aspects of food design (composition, shape, colour, etc.) and their connections to cultural meanings and values.	Create a scrapbook of traditional food design, its cultural meanings, and how and where the food is enjoyed.
Malay Language	6	Warisan Budaya Kekal Terpelihara - Adab Berkunjung	Lack of skills to socialise with people from different backgrounds	Learn to be respectful and sensitive towards cultural differences when visiting others' homes	Role-play how to be culturally sensitive as guests and hosts of different ethnic and religious backgrounds. Pupils consider: the time of day, what to bring, attire, way of greeting, and any do's and don'ts.
History	6	Perayaan Masyarakat di Malaysia	Surface-level understanding of other cultures and festivals	Understand how different cultural groups celebrate their festivals and appreciate the importance of such festivals for strengthening connections between people	Attend an important local festival and interview one person there about how they celebrate, why they celebrate, and how the festival affects their relationships with other people. Then, pupils will reflect on their own experience, compare it to the interviewee's experience, and create a video about the similarities and differences.

Table B1: Examples of GCED integration in the Cultural Diversity theme

Theme: CONFLICT AND PEACE-BUILDING				
Subject	**Year**	**Subject Unit and Topic**	**GCED Issue**	**GCED Discussion Point**	**Suggested Activity**
History	5	Campur Tangan dan Penjajahan Kuasa Asing	Negative effects of colonisation	How British rule caused economic inequities along ethnic lines in Malaysia.	Listen to the histories of people of different ethnicities who lived through the British colonial era and analyse how British colonial policy contributed to the link between occupation and race.
Visual Arts	6	Bersatu teguh, bercerai roboh	Barriers to conflict resolution	Relating the meaning of the idiom "*Bersatu teguh, bercerai roboh* (United we stand, divided we fall)" in the context of teamwork or family	Create a stable sculpture in terms of shape, balance, and unity. Reflect: what are the factors that contribute to the stability of the sculpture? Can you connect those factors to your experiences in your family or working with others in a team?
English Language	6	Tell me a story - The Perfect Swan	Jumping to conclusions can lead to unnecessary conflict and misunderstanding	Understanding others' efforts and perspectives can help prevent conflict and promote peace. Having patience, empathy, and the will to understand others are key to resolving conflicts peacefully.	Role-play the traditional story, "The Perfect Swan". Reflect on how the emperor's quick judgement created tension, and how better communication and understanding of the artist's process could have led to a peaceful outcome.

Table B2: Examples of GCED integration in the Conflict and Peace-building theme

Theme: JUSTICE AND HUMAN RIGHTS				
Subject	**Year**	**Subject Unit and Topic**	**GCED Issue**	**GCED Discussion Point**	**Suggested Activity**
History	4	Saya dan Keluarga - Peranan Anggota Keluarga Saya	Awareness of own rights and responsibilities as children	Understand that children have the right to safe shelter and fulfilment of their basic needs, and at the same time have responsibilities to their families.	Create a family tree and list down the roles and responsibilities of each family member. Reflect: "Am I fulfilling all of my responsibilities in the family? What can I do better to fulfil my responsibilities?" Decide on 2 concrete actions that they want to practise for one month. Then, take 5 mins of the class every week to share what they have done with your tablemate.
Malay Language	4	Keistimewaan Rakyat Malaysia	Inequality between citizens and non-citizens	To understand that citizenship status determines what rights people have or do not have.	Watch the documentary "Aku Mau Skola" *https://youtu.be/NtzR7OkjmPk?si=rErt-3j1WClDQUvl* and discuss: "Why can you go to school while the children in the film cannot? Do you think this is fair or unfair? Why?"
History	6	Agama dan Kepercayaan di Malaysia	Freedom of religion and freedom of expression	To understand how the Constitution allows for the freedom of religion and how it is practised in real life.	Unpack good values in the Street of Harmony in Seberang Jaya, Penang *https://www.youtube.com/watch?v=WFUpOO3NcnA* and reflect: "How do the different houses of worship coexist on one street?"

Table B3: Examples of GCED integration in the Justice and Human Rights theme

Theme: ENVIRONMENTAL SUSTAINABILITY				
Subject	**Year**	**Subject Unit and Topic**	**GCED Issue**	**GCED Discussion Point**	**Suggested Activity**
English Language	4	Help the Earth - Recycle!	Waste generation and management	Understanding recycling and how it helps protect the environment.	Track your own family's waste generation and recycling habits for one month. Present and reflect on findings.
Visual Arts	5	Sayangilah Habitat Kita	Biodiversity loss	Identify causes of species extinction and explore how they can help address the problem by spreading this information publicly.	Draw a poster about an endangered animal and include one cause of its endangerment. Pupils can then upload the poster to social media platforms.
Design and Technology	5	Aplikasi Reka Bentuk Kejuruteraan-Kegunaan tenaga yang boleh dibaharui	Energy loss or overconsumption of energy	Understand and appreciate natural resources that can be used to generate renewable energy and create a positive impact on the environment	As a follow-up activity to the solar fan, pupils can create a poster or short video with key messages on solar energy and its benefits towards climate change.
Science	6	Biodegradable and non-biodegradable materials	Pollution	How the use of non-biodegradable materials causes pollution	Create a photo essay on pollution found in your area.
Malay Language	6	Penternakan Janakan Pendapatan	Sustainable food production	Locally sourced food reduces carbon footprint, ensures healthier and fresher food, and promotes food security	Investigate how much chicken and eggs are consumed in the school canteen every week and propose a plan to run a school farm that supplies chicken and eggs directly to the canteen.

Table B4: Examples of GCED integration in the Environmental Sustainability theme

Theme: HEALTH AND WELLBEING				
Subject	**Year**	**Subject Unit and Topic**	**GCED Issue**	**GCED Discussion Point**	**Suggested Activity**
Malay Language	4	Pilih Gaya Hidup Sihat- Teknik Masakan Berkhasiat	Unhealthy diet- overconsumption of oil and fats	Understanding the negative health effects of a diet high in oil and fats, and learning some cooking methods that require less oil	Prepare a favourite local food using the deep fry method and two other cooking methods. Compare the amount of oil used in each cooking method and brainstorm other types of cooking methods that involve less oil.
Science	4	Bunyi yang berfaedah dan yang memudaratkan; Mengurangkan pencemaran bunyi	Physical and mental health	Learning to be sensitive to how different types of sound may impact people in various ways.	Pupils list the sounds they find in the classroom and school at different times, plot the sounds on the decibel scale, and reflect on how they feel about each sound. What are the effects of the loudest sounds and what can be done to make the noises less damaging? *https://www.marine.usf.edu/pjocean/ packets/f00/f00u2le5.pdf*
English Language	4	What are germs?	Unhygienic practices	Understanding that germs are invisible but exist all around us. So, it is a good habit to wash our hands before eating, as some may make us sick.	Conduct the glitter experiment. Track and reflect on how often we wash our hands before eating.
English Language	5	School Food	Unhealthy food and its impact on health	Identify how different school lunches around the world reflect healthy or unhealthy practices, and what we can learn from them to improve our own eating habits.	Create a Meal Comparison Chart (covering at least three different countries) and redesign an ideal healthy school lunch for your school.
English Language	6	Sugar, sugar	Unhealthy diet -overconsumption of sugar	Learning about how overconsumption of sugar affects our health and what we can do to make healthier choices.	Conduct a sugar consumption survey among pupils and reflect on the findings.

Table B5: Examples of GCED integration in the Health and Wellbeing theme

Appendix C: Learner-Centred Strategies

COLLABORATIVE LEARNING

Importance	Implementation Methods
• Develop critical and creative thinking, oral communication, and leadership skills among pupils • Increase positive social interactions among pupils through working together, taking responsibility, and practising tolerance as a team	• Design tasks that encourage pupils to think critically and creatively to solve problems or innovate • Allow pupils enough time and space to discuss, debate, and act in teams • Create opportunities for pupils to evaluate each other's opinions or suggestions, and make decisions together to complete the task • Empower pupils to form "smart partnerships" and take on different roles in a group based on different strengths, personalities, genders, cultural backgrounds, language abilities, or interests

Table C1: Importance and implementation methods of Collaborative Learning

EXPERIENTIAL LEARNING

Importance	Implementation Methods
• Enable pupils to learn in the real world • Develop pupils' sensitivity towards their surroundings • Enhance pupils' understanding of a concept through hands-on exploration • Build pupils' ability to solve problems proactively	• Design tasks that enable pupils to experience, explore, and do something hands-on • Give pupils enough time to process and reflect on their learning experience and the data collected • Encourage pupils to share ways to apply the knowledge, skills, or values they developed in the process to handle real-world issues

Table C2: Importance and implementation methods of Experiential Learning

CONTEXTUAL LEARNING

Importance	Implementation Methods
• Enable pupils to relate the lessons to their daily lives • Prepare pupils to apply what they have learned in real contexts • Develop pupils' ability to learn from their own experiences	• Design tasks that enable pupils to understand and experience real-life situations, and solve problems • Plan activities that allow pupils to explore, create, innovate, or learn from a person with relevant knowledge or skills • Encourage pupils to ask questions throughout the learning process while they work towards solving a problem • Allow pupils enough time and space to process and reflect on the experiences and knowledge they obtain

Table C3: Importance and implementation methods of Contextual Learning

INQUIRY-BASED LEARNING

Importance	Implementation Methods
• Enable learning that integrates knowledge, skills, and values • Build pupils' higher-order thinking skills (HOTS) • Develop pupils' ability to ask the right questions to gather suitable and accurate information	• Create a learning environment that stimulates pupils' curiosity and interest to investigate • Guide pupils to investigate, collect data, and interpret data critically • Encourage pupils to apply the knowledge and skills learnt in new situations • Facilitate pupils in reflecting on and evaluating their own learning

Table C4: Importance and implementation methods of Inquiry-based Learning

Appendix D: Sample Lesson Exemplars

The lesson plan samples provided here are to be used as a guide and inspiration for teachers to develop their own GCED-infused lesson plans. These lesson plans illustrate how GCED themes and issues can be integrated into relevant topics within a subject without detracting from conventional lesson goals. The template of these lesson plans can be adapted to any Year 4, 5, and 6 subjects.

These examples also illustrate how transformative pedagogy and using a variety of learner-centred strategies can help pupils reflect on classroom knowledge, real-world issues, their personal attitudes and behaviour, and gradually take small steps towards change.

	APPROACHES TO GCED INTEGRATION	GCED THEME	SUBJECT	TOPIC
1	SUBJECT-BASED	Environmental Sustainability	Malay Language Year 6	Cage fish-farming
2	SUBJECT-BASED	Justice and Human Rights	English Year 6	Cool jobs
3	SUBJECT-BASED	Conflict and Peace-Building	History Year 6	Challenges in the formation of Malaysia
4	PROJECT-BASED	Cultural Diversity	Visual Arts Education Year 4	Motifs of different cultures
5	PROJECT-BASED	Health and Wellbeing	History and Malay Language Year 4	Roles of my family members
6	PROJECT-BASED	Environmental Sustainability	Design and Technology Year 5	Urban agriculture
7	PROJECT-BASED	Health and Wellbeing	Science and English Language Year 4	Healthy defecation and eating habits

Table D1: Overview of subject-based and project-based lesson exemplars

1. MALAY LANGUAGE SUBJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as collaborative learning (group discussion), inquiry-based learning, experiential learning (game), and multimodal methods (visual, speaking and listening, reading and writing). The assessment methods include both summative and formative methods.

Subject: MALAY LANGUAGE (YEAR 6)	Topic: CAGE FISH-FARMING	Duration: 1 HOUR

	GCED Theme	Environmental Sustainability
	GCED Issue	Overfishing
	GCED Context	The increasing price of fish is due to its decreasing supply, which is related to the issue of overfishing. Therefore, implementing effective ways of rearing fish is necessary to help address the problem of overfishing.
	GCED Discussion Point	Identify the consequences of overfishing and ways to address the issue to ensure there is enough fish supply for the public at reasonable prices.
	Essential Question	While cage fish-farming is a solution for overfishing, what should be done about the severe depletion of fish in rivers and oceans?

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)	
Subject-related Skills	Grammar
Content Standards	Understand active and passive voice, and form sentences according to context.
Learning Standards	Understanding what active and passive voices are, and forming active and passive sentences according to context.

LEARNING OUTCOMES	
Cognitive	• Pupils are able to form and write active sentences to explain the processes from cage fish-farming to selling fish at the market. • Pupils are able to explore solutions on how to solve the problem of overfishing.

Affective	• Pupils are able to demonstrate feelings of care and responsibility for conserving marine life and its ecosystem.
Behavioural	• Pupils are able to consider diversifying their protein diet to include vegetable protein. • Pupils are able to show support for marine conservation initiatives.

Table D2: Malay Language subject-based integration at-a-glance

LESSON PLAN			
Step	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Set Induction **(5 minutes)**	[Flipped Classroom] Pupils read a passage in the textbook (pg. 162) about the cage fish-farming method. Question: What is cage fish-farming? 1. In groups, pupils identify the active sentences in the passage in Round Robin.		
Step 1 **(20 minutes)**	Question: What is the process from cage fish-farming to selling fish at the market? 1. In groups, pupils discuss the methods of cage fish-farming using phrases (key words and information) given. 2. Pupils create a flow chart with active sentences to explain the process from cage fish-farming to selling fish at the market. 3. Pupils present their flow charts.	Cognitive Learning Assessment Teachers assess students' flow chart, including the active sentences formed.	Use key words and photos given in the textbook (p.162) to create active sentences and flow chart.
Step 2 **(20 minutes)**	Question: Is cage fish-farming an effective approach to address the issue of overfishing? 1. In groups, pupils brainstorm all the foods that they or their family eat that are made from seafood produce (fish, prawns, squid, etc.). 2. Pupils list all the seafood products they consume on sticky notes and paste them on the blackboard. 3. Teacher places drawings of three types of seafood (10 fish, 10 prawns, and 10 squids) in a large box or basket. 4. Teacher explains a scenario: "The demand for fish crackers has become so high that fishermen are rushing to capture more fish."	Affective Learning Assessment Teacher listens to pupils' discussion to assess whether they show empathy for the environment.	Teacher prepares photos/drawings of three types of seafood and other tools needed for harvesting.

	5. Four pupils volunteer as fishermen to "harvest" as many fish as possible from the box or basket in 60 seconds. 6. Pupils observe the remaining fish in the box or basket after the harvest and predict what would happen to the price of fish and fish crackers. 7. Pupils reflect: What would happen to marine life when over 34 million Malaysians insist on consuming all these seafood products listed on the blackboard? Pupils discuss the impact of overfishing on marine life versus on humans.		
Step 3 **(10 minutes)**	Question: What are some suitable ways to address the issue of overfishing? 1. Pupils discuss ways the different parties below can help manage the problem of overfishing: • what fisherfolk can do • what the government can do Extension Activity: Pupils form active sentences about ways to address the issue of overfishing based on their discussion.	<u>Cognitive Learning Assessment</u> Teacher listens to pupils' discussion and assesses whether pupils have used critical thinking when suggesting the actions to be taken by fisherfolks and the government	Examples of active sentences about ways to address the issue of overfishing: *1. Nelayan boleh menggunakan jala yang berlubang besar.* *2. Kita boleh menternak ikan di kolam.* *3. Penjual ikan boleh menaikkan harga ikan.* *4. Kerajaan menghadkan nelayan menangkap ikan.*
Closing and Reflection **(5 minutes)**	Question: What can I do to help address the issue of overfishing? Pupils reflect on and share some personal actions they would take to help address the issue of overfishing.	<u>Behavioural Learning Assessment</u> Teachers listen to pupils' suggestions of what action they would take.	

Table D3: Malay Language subject-based integration lesson plan
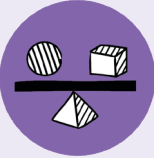
2. ENGLISH LANGUAGE SUBJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as inquiry-based learning (web search), experiential learning (interviews), and multimodal methods (reading and listening). Assessment methods include both summative and formative methods.

Subject: ENGLISH LANGUAGE (YEAR 6)	Topic: COOL JOBS	Duration: 1 HOUR

	GCED Theme	Justice and Human Rights
	GCED Issue	Social rejection towards 3D (Dirty, Dangerous, Difficult) jobs
	GCED Context	When pupils are asked what jobs they look to as a career for themselves, they tend to aim for what they see as high paying professional jobs such as doctor, lawyer, banker etc. Jobs that may seem undesirable, such as 3D (Dirty, Dangerous, and Difficult) jobs, are regarded with prejudice, and people working such jobs are discriminated against.
	GCED Discussion Point	Every person, regardless of their job, contributes meaningfully to society as they provide valuable services. 3D jobs require as much knowledge and skills as office jobs. We should respect and appreciate hard work and honest living as important values to be upheld in any kind of job.
	Essential Question	Why should we appreciate different jobs and the contributions of workers?

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)	
Subject-related Skills	Reading and Listening
Content Standards	• Understand a variety of linear and non-linear print and digital texts by using appropriate reading strategies. • Understand meaning in a variety of familiar contexts.
Learning Standards	• Understand specific information and details of simple longer texts. • Understand specific information and details of longer simple texts on a range of familiar topics with little or no support.

LEARNING OUTCOMES	
Cognitive	• Pupils are able to read job descriptions given in the textbook. • Pupils are able to listen to the given recording and complete the listening task. • Pupils are able to understand that knowledge and skills are key to career success regardless of the type of job.
Affective	• Pupils are able to change their perception towards workers of 3D (dirty, dangerous and difficult) jobs. • Pupils are able to appreciate different jobs and workers' contributions.
Behavioural	Pupils will reconsider the variety of jobs that they can take on.

Table D4: English Language subject-based integration at-a-glance

LESSON PLAN			
Step	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Set Induction **(5 minutes)**	Question: What does it take to run a school? 1. In groups, pupils list down as many jobs as possible that they think are needed in a school. 2. Pupils discuss and rank the jobs they listed in order of importance. 3. Each group shares their 3 most important jobs and why they have ranked those the highest.		
Step 1 **(15 minutes)**	Question: How much do plumbers earn per year in comparison to teachers in Malaysia? 1. Pupils vote whether they prefer to be a teacher or a plumber and share why. 2. Teacher guides pupils to calculate the basic average salary of teachers and plumbers in Malaysia. 3. Pupils discuss why plumbers earn more than teachers.		
Step 2 **(15 minutes)**	Question: What are the different types of jobs in our school community? [Flipped Classroom] 1. Pupils pair up and interview 2 people holding different occupations in the school e.g. teacher, office clerk, canteen worker, security guard, cleaner, or gardener. 2. Pupils ask the person about their scope of work, skills and knowledge required to do their job, level of satisfaction with their job, and challenges that they face.	<u>Cognitive Learning Assessment</u> Teacher listens to pupils' discussions to assess students' critical thinking ability to understand the value of different jobs.	Teacher prepares interview questions. Teacher explains the 4 interview questions and prepares pupils on what type of responses to expect.

	In the following lesson: 1. Each group of pupils shares their findings. 2. Pupils discuss how they feel about the contributions of the different school workers.	<u>Affective Learning Assessment</u> Teacher listens to pupils' discussions to assess whether pupils have empathy for school workers.	
Step 3 **(10 minutes)**	Question: Are all jobs important? 1. Pupils are given a worksheet on Unusual Jobs. 2. Pupils listen to the audio. 3. Pupils fill in the blanks in the worksheet based on the audio played.	<u>Cognitive Learning Assessment</u> Teachers assess pupils' ability to listen and understand.	
Step 4 **(10 minutes)**	Question: What is the right job for you? 1. Pupils are given advertisements for four job openings. 2. Within 5 minutes, pupils read and make a decision on which job they would choose as a future career based on their personal interests and talents. 3. Pupils move to a corner of the classroom that indicates the job they choose.	<u>Affective Learning Assessment</u> Teacher uses pupils' decisions and rationale to assess if they have changed their perceptions about blue-collar jobs. <u>Cognitive Learning Assessment</u> Teacher assesses pupils' ability to read and understand (Step 3).	
Closing and Reflection **(5 minutes)**	Question: What jobs will I explore in the future? Pupils write a list of jobs they will be open to in the future.	<u>Behavioural Learning Assessment</u> Teacher uses pupils' list of jobs to assess if pupils are willing to consider different types of jobs.	

Table D5: English Language subject-based integration lesson plan

3. HISTORY SUBJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as collaborative learning (group discussion and decision-making) and multimodal methods (kinesthetic and speaking/listening). Assessment methods include both summative and formative methods.

Subject: HISTORY (YEAR 6)	Topic: CHALLENGES TOWARDS THE FORMATION OF MALAYSIA	Duration: 1 HOUR

	GCED Theme	Conflict and Peace-building
	GCED Issue	Regional Conflict
	GCED Context	During the formation of Malaysia, there was a regional political conflict involving neighbouring countries which resulted in confrontation. The GCED theme of conflict and peace-building highlights the importance of avoiding unnecessary harm by resorting to more peaceful resolutions.
	GCED Discussion Point	Learning how conflicts can be managed peacefully and collaboratively
	Essential Question	What was the importance of consensus-building and negotiation in the formation of Malaysia?

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)	
Subject-related Skills	Formation of Malaysia
Content Standards	• Understand a variety of linear and non-linear print and digital texts by using appropriate reading strategies. • Understand meaning in a variety of familiar contexts.
Learning Standards	• Elaborate on the challenges faced towards the formation of Malaysia • State the importance of consensus-building in the formation of Malaysia

LEARNING OUTCOMES	
Cognitive	• Pupils are able to explain the challenges faced in the formation of Malaysia. • Pupils are able to analyse the pros and cons of an action.
Affective	• Pupils are able to approach a conflict calmly.
Behavioural	• Pupils are able to approach a conflict situation using dialogue and discussion.

Table D6: History subject-based integration at-a-glance

LESSON PLAN			
Step	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Set Induction **(5 minutes)**	Question: What is conflict? 1. Teacher places a valuable object (e.g. a handphone) in the centre of a circle. 2. 5 pupils take turns to share their desperate need for the object. 3. After their explanations, pupils are given five minutes to debate their needs with one another to decide who gets to keep the object.		
Step 1 **(10 minutes)**	Question: What challenges did Malaya face from other countries in the formation of Malaysia? 1. Pupils brainstorm the challenges faced by Malaya from other countries in the formation of Malaysia.	Cognitive Learning Assessment Teacher assesses pupils' understanding of the challenges faced in the formation of Malaysia.	
Step 2 **(20 minutes)**	Question: How could Malaya manage the challenges from other countries in the formation of Malaysia? 1. Pupils form groups and are given 3 strategy options Malaya could choose from to respond to challenges from other countries: A (go to war), B (negotiate), or C (no action). 2. In groups, pupils discuss each of the three strategies and what can be gained from each strategy to handle other countries' resistance to the formation of Malaysia. 3. Pupils decide on one strategy in each group.	Cognitive Learning Assessment Teacher listens to pupils' discussion to assess their ability to analyse the pros and cons of each strategy.	

		Affective Learning Assessment Teacher observes pupils' discussion to assess whether pupils can remain calm when facing differing opinions. Behavioural Learning Assessment Teacher observes pupils' discussion to assess whether pupils can listen to each other's views.	
Step 3 **(20 minutes)**	Question: What is the most suitable strategy for managing other countries' resistance and why? 1. Each group presents their chosen strategy to the class, providing clear reasons to support their choice.	Cognitive Learning Assessment Teacher listens to the reasons given by pupils to assess their understanding of the challenges faced in the formation of Malaysia.	
Closing and Reflection **(5 minutes)**	Question: What is the consequence of the chosen strategy? 1. Pupils vote for the group(s) with the most peaceful strategy and the group(s) with the most harmful strategy. Extension Activity: Pupils write down a conflict they have experienced outside of the classroom and how they addressed it for further discussion with the teacher and their peers.	Cognitive Learning Assessment Teacher assesses pupils' ability to analyse the pros and cons of each strategy.	

Table D7: History subject-based integration lesson plan

The lesson plans below follow the phases in the Project-based Learning Cycle.

4. HISTORY AND MALAY LANGUAGE PROJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as contextual learning (documenting family) and multimodal methods (watching videos, speaking/listening). Assessment methods include both summative and formative methods.

Subject: HISTORY AND MALAY LANGUAGE (YEAR 4)	Topic: ROLES OF MY FAMILY MEMBERS	Duration: 8 SESSIONS (5 HOURS IN CLASS)

	GCED Theme	Health and Wellbeing
	GCED Issue	The deterioration of traditional or cultural familial values is causing a breakdown of family structure, function, and roles, and affects the wellbeing of family members.
	GCED Context	Neglect, abuse, and exploitation is an issue in Malaysia and beyond, yet the awareness and importance of the rights and responsibilities of both children and parents/guardians are still not emphasised. Responsible behaviours of parents/guardians towards the child, and of the child towards parents/guardians, are important to ensure the mental and emotional health of family members, as well as the overall wellbeing of the family.
	GCED Discussion Point	Awareness of the rights and responsibilities of every family member, be it parent or child.
	Essential Question	What are the rights and responsibilities of family members?

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)		
	HISTORY	**MALAY LANGUAGE**
Subject-related Skills	Historical thinking skills: Finding sources	• Listening and Speaking • Writing Skills
Content Standards	Meaning of self and family	• Storytelling and sharing about something that was heard, watched, or read about with the correct pronunciation and intonation. • Write words, phrases, and sentences that are meaningful.

Focus	Self and family	Sharing about the roles of parents and child
Learning Standards	• Explain the meaning of basic family and extended family. • Compare the roles of family members. • Show the manners that need to be practised within a family.	• Storytelling with the correct pronunciation and intonation. • Form and write sentences and paragraphs from multimedia materials.

LEARNING OUTCOMES	
Cognitive	• Pupils are able to verbally state the members in a basic family and an extended family. • Pupils are able to verbally list and explain three roles and responsibilities of parents and the child. • Pupils are able to state the meaning of human rights in a family context.
Affective	• Pupils express how they feel when they hear about situations of abuse, neglect, and exploitation in the family. • Pupils express how they feel when they hear about families who act responsibly, lovingly, and selflessly.
Behavioural	• Pupils are able to enact their role as a good child to help ensure the wellbeing of their family. • Pupils are able to share about their weaknesses and shortcomings and give suggestions on how to overcome them.

Table D8: History and Malay Language project-based integration at-a-glance

LESSON PLAN			
Phase	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Understanding of Concept and Context	***Session 1: Who is my family?*** 1. Teacher asks pupils to identify the family members living in their home, and explains the meaning of the terms extended family and nuclear family. 2. Each pupil picks a sticker from a box and sticks it on their own forehead. 3. Within 3 minutes, pupils find their extended family members or their nuclear family members. 4. Pupils share the advantages and disadvantages of living with extended and nuclear families.		Teacher prepares red stickers for extended family members: Father, mother, grandmother, brother, sister, cousin, grandfather, uncle, aunt

			Green stickers for nuclear family members: father, mother, brother, sister
	Session 2: Rights and Responsibilities 1. Pupils watch the video. 2. Teacher summarises the content of the video regarding rights and responsibilities. 3. Pupils complete the checklist.		*Rights and Responsibilities for Kids | What is the difference?* *Jom kenali Hak Kanak-Kanak anda!*
Experience and Inquiry	**Session 3: Responsibilities of my family members** 1. Teachers set up 3 stations with placards indicating: my parents, myself, and my siblings. 2. Pupils are divided equally among the 3 stations. 3. At each station, in pairs, pupils share the responsibilities of the family member with each other based on the placard for 10 minutes. 4. The pairs change stations and repeat step 3 for the remaining two stations. **Session 4 (Flipped Classroom): Quick Capture of Family Members being Responsible** 1. Pupils take photos or videos at home that show any family member behaving responsibly. The photo or video must be natural, meaning it should be taken without the family member's knowledge. **Session 5: Sharing of Quick Capture** 1. In the following session, pupils show and tell about their photo or video.		Pupils can take photos or make videos. Teacher reminds pupils to ensure the photo or video taken is suitable and decent.
Critical Analysis and Reflection	**Session 6: Video Viewing and Discussion** 1. Pupils watch two clips showing children facing challenging situations and supportive situations. 2. Pupils share their feelings after watching the clips. 3. Teacher initiates a discussion on what rights have the child been deprived of.	Affective Learning Assessment Teacher to listen and take note of pupils' sharing of feelings	

Action	***Session 7: The Family Responsibilities Charter*** 1. Pupils break into 8 groups, and each group comes up with 3 statements on the responsibilities of a family member: Mother - Group 1 & 2 Father - Group 3 & 4 Elder sibling(s) - Group 5 & 6 Younger sibling(s) - Group 7 & 8 2. Each group presents their statements. 3. Pupils vote on the best statements to include in the charter. 4. Teacher prints out the charter for pupils to put at home. ***Session 8: Self-reflection*** 1. On yellow-coloured leaf-shaped cards, pupils sketch or write their weakness (e.g. laziness, selfishness, dishonesty, disrespectful, disloyal). 2. On green-coloured leaf-shaped cards, pupils sketch or write their strengths (e.g. hardworking, honest, respectful, caring, loving, responsible). 3. Pupils write their name on the back of all of their leaf-shaped cards and paste them on the branches of a big "TREE" poster in the back of the classroom. 4. In one month, pupils are encouraged to improve their behaviour and replace the yellow leaves with new green leaves.	Cognitive Learning Assessment Checklist: What are rights? What are responsibilities? (based on parents and children) Behavioural Learning Assessment At the end of the month, the teacher assesses behavioural change from the greening of the tree.	

Table D9: History and Malay Language project-based integration lesson plan

TIMELINE FOR PROJECT-BASED GCED INTEGRATION								
	Session 1	**Session 2**	**Session 3**	**Session 4**	**Session 5**	**Session 6**	**Session 7**	**Session 8**
History and Malay Language	Who is My Family?	Rights and Responsibilities	Responsibilities of My Family Members	Quick Capture	Presentation of Quick Capture	Video Viewing and Discussion	The Family Responsibilities Charter	Self- Reflection

Table D10: History and Malay Language project-based integration timeline

REFERENCES
Rights and Responsibilities for Kids | What is the difference? *https://youtu.be/FWwEMFSY1r0?si=hMQW6oYFKhlPYUpg*
Jom kenali Hak Kanak-Kanak anda! https://youtu.be/pGCPTglP1KA?si=Aj5cUn7wYG_O7jHb

Table D11: History and Malay Language project-based integration references

5. VISUAL ARTS EDUCATION PROJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as collaborative learning (co-creation), contextual learning (cultural motifs), inquiry-based learning (interview and internet research), and experiential learning (stencil art). Assessment methods include both summative and formative methods.

Subject: VISUAL ARTS EDUCATION (YEAR 4)	Topic: MOTIFS OF DIFFERENT CULTURES	Duration: 8 SESSIONS (4 HOURS IN CLASS)

	GCED Theme	Cultural Diversity
	GCED Issue	Lack of awareness of other cultures' expressions and their symbolic meanings
	GCED Context	Misunderstanding or lack of awareness about the traditions and histories of other cultures can lead to prejudice and discrimination. It is important to learn about different cultural expressions in order to gain appreciation and deeper understanding of these cultures.
	GCED Discussion Point	Understanding cultural diversity and how different cultures express their thinking through design motifs found in ornamental, religious, or artistic creations.
	Essential Question	What can we learn about different cultures through design motifs?

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)	
Subject-related Skills	Motif of different cultures; Negative stencil; Positive Stencil
Content Standards	• Visual Arts Language • Visual Arts Skills • Creative Creations • Appreciation of Visual Artworks
Focus	Making Patterns and Designs: Creating ordered patterns by using wet/dry media creatively

Learning Standards	• Identify and compare the visual arts language on stencil artworks.
	• Apply visual arts language on stencilled artworks through exploring the:
	   i. stencilling media and techniques
	   ii. creation process
	   iii. ideation of functional product design
	• Produce creative product designs by using patterns that have been made by:
	   i. setting a theme and title through sources of ideas
	   ii. developing a design idea
	   iii. deciding on suitable types of media and techniques based on the design
	   iv. work ethic and values
	   v. final finishing
	• Exhibit artwork produced

LEARNING OUTCOMES	
Cognitive	1. Pupils are able to identify the meaning of motifs expressed by different cultures. 2. Pupils are able to understand the application of visual language in their stencil creation. 3. Pupils are able to master the technical aspects of producing stencil work.
Affective	1. Pupils are able to appreciate the diversity of expressions and meanings displayed in multicultural motifs. 2. Pupils are able to appreciate the cultural aesthetics behind the ethnic motifs.
Behavioural	1. Pupils produce an art work promoting multicultural motifs and their meaning.

Table D12: Visual Arts Education project-based integration at-a-glance

LESSON PLAN			
Phase	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Understanding of Concept and Context	***Session 1 (flipped classroom): Discover Motifs in Malaysian Culture*** 1. Pupils do internet research on pictures of 4 motifs used by 4 different ethnic groups in Malaysia. 2. Pupils examine the printed motifs closely to identify the different images found within each motif.		Teacher encourages pupils to look for motifs on different materials (textile, wood, paper, metal, tiles, etc.) that are from various ethnic groups and states in Malaysia.

	Session 2: Pair-and-Share 1. Pupils pair up and share about their motifs, which ethnic group they belong to, where they are found, and the types of images found inside the motif. 2. Each pupil selects the most interesting motif based on their partner's presentation. 3. Pupils volunteer to do a presentation of their selected motif to the class.	Cognitive Learning Assessment Teacher assesses pupils' presentations	
Experience and Inquiry	**Session 3 (flipped classroom): Inquiry into the Meaning of Motifs** 1. Pupils interview their neighbours or family members, or do an internet search to find out the symbolic meaning of one of the motifs and the importance of the images inside the motif. 2. Pupils write a short description to explain the meaning of the motif and the images contained in the motif. Optional: they may also include which ethnic group they belong to and where they are found. 3. Pupils present the short description to the teacher for comments. **Session 4: Sketching and Stencil-Making** 1. Pupils make sketches of the motif. 2. Pupils present their sketches to their teacher for comments. 3. Pupils sketch the motif onto a card and make a stencil. **Session 5: Designing a Surprise Box** 1. Pupils and their partner work together to make a surprise box with a cover in any shape using recycling materials. 2. Pupils and their partner plan and collaborate on how to incorporate both of their motifs on the surface of the box. **Session 6: Stencilling the Surprise Box** 1. Pupils and their partner test their stencils using different media (e.g. watercolour or oil pastel). 2. Pupils and their partner stencil their surprise box together. 3. Pupils and their partner stencil both of their motifs on separate pieces of cardboard. Behind this cardboard, they will write an explanation of the meaning of the motif. Optional: they may include which ethnic group they belong to and where they are found.	Cognitive Learning Assessment Teacher checks the short description for accuracy.	

Critical Analysis and Reflection	***Session 7: Surprise Box Presentation in Class*** 1. Pupils showcase their surprise boxes in the classroom. 2. Pupils view the surprise boxes and their contents and select two motifs that are different from their own culture which they appreciate very much. Pupils leave a sticky note with key words of what they appreciate about each of the two motifs. The note should include their name.	<u>Cognitive Learning Assessment</u> Teacher assesses pupils' technical ability and their use of visual language in the design of surprise boxes. <u>Affective Learning through Peer Assessment</u> Pupils show appreciation for motifs from the sticky notes left next to surprise boxes.	
Action	***Session 8: Surprise Box Exhibition in Canteen*** 1. Surprise boxes are exhibited in the canteen or hall of the school for all pupils to enjoy and learn about diversity of expression.		

Table D13: Visual Arts Education project-based integration lesson plan

TIMELINE FOR PROJECT-BASED GCED INTEGRATION								
	Session 1	**Session 2**	**Session 3**	**Session 4**	**Session 5**	**Session 6**	**Session 7**	**Session 8**
Visual Arts Education	Discover Motifs in Malaysian Culture	Pair-and-Share	Inquiry into the Meaning of Motifs	Sketching and Stencil-Making	Designing a Surprise Box	Stencilling the Surprise Box	Surprise Box Exhibition in Class	Surprise Box Exhibition in Canteen

Table D14: Visual Arts Education project-based integration timeline

6. DESIGN AND TECHNOLOGY PROJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as inquiry-based and experiential learning (modelling), as well as collaborative learning (co-creation). Assessment methods include both summative and formative methods.

Subject: DESIGN AND TECHNOLOGY (YEAR 5)	Topic: URBAN AGRICULTURE	Duration: 5 SESSIONS (4 HOURS IN CLASS)

	GCED Theme	Environmental Sustainability
	GCED Issue	Lack of food sources and space for farming in urban areas
	GCED Context	Cities typically rely on rural areas or even other countries for food supply. Not only does this result in long supply chains with large carbon footprints, it also makes cities vulnerable to food insecurity in the face of disasters, extreme weather events, or other disruptions. Sustainable local food systems are important to ensure all segments of the population have access to affordable and high quality fresh food.
	GCED Discussion Point	Understanding how reservoir planting systems such as hydroponics can help solve the problem of lack of farming spaces in urban areas and increase the supply of affordable, locally grown fresh food.
	Essential Question	How can reservoir planting systems help increase access to affordable, locally grown fresh food in urban areas?

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)	
Subject-related Skills	Create a reservoir planting system
Content Standards	Design and Technology of Urban Agriculture
Focus	Agricultural technology
Learning Standards	• Explain the meaning of urban agriculture. • Explain reservoir planting systems used in urban agriculture. • Sketch the design of the selected reservoir planting system. • Evaluate the selected sketch design for improvements. • Choose the tools, equipment, and planting medium to create the selected reservoir planting system. • Create the selected reservoir planting system based on the sketch design.

LEARNING OUTCOMES	
Cognitive	1. Pupils are able to explain the characteristics of a reservoir planting system and its use in urban agriculture. 2. Pupils are able to sketch the design of a model of a reservoir planting system. 3. Pupils are able to create a reservoir planting system model using suitable tools, equipment, and planting medium based on their sketch design.
Affective	1. Pupils are able to appreciate the challenges of food production. 2. Pupils are able to appreciate the importance of sustainable food systems.
Behavioural	1. Pupils are able to maintain a reservoir planting system in their own classroom.

Table D15: Design and Technology project-based integration at-a-glance

LESSON PLAN			
Phase	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Understanding of Concept and Context	***Session 1: Veggie Shopping*** 1. Pupils are divided into five groups. Each group is given a fixed amount to spend on their daily vegetables: two groups get RM3, two groups get RM5, and one group gets RM15. 2. According to the first price list given, pupils discuss which items to buy so that they have one sawi and one potato. • Local sawi RM1 • Organic sawi (from Cameron Highlands) RM3 • Potatoes (from China) RM1 • Potatoes (from Holland) RM3 3. As pupils approach the teacher (who is the local farmer), the teacher announces a new price list because a pandemic has broken out in China, so they have temporarily stopped exporting food. Also, due to a landslide at Cameron highlands, no trucks can transport vegetables out to other places, and there is not enough local sawi. 4. The teacher removes the "Potatoes (from China)" card and the "Organic sawi (from Cameron Highlands)" card, and changes the price on the "Local sawi" card to RM4. • Local sawi RM4 • ~~Organic sawi (from Cameron Highlands) RM3~~ • ~~Potatoes (from China) RM1~~ • Potatoes (from Holland) RM3	Affective Learning Assessment Teacher listens to pupils' suggested solutions to assess their appreciation of the challenges of food production and the importance of sustainable food systems to ensure fresh food supply for all.	

	5. Teacher asks pupils: What will happen when you cannot afford to buy fresh food? What can you do as people who live in the city to ensure we have enough fresh food supply for everybody? 6. Pupils watch a video about the issue of urban food insecurity in Malaysia. ***Session 2: Discover Urban Farming*** 1. Teacher explains the three types of reservoir planting systems: hydroponic, aquaponic, and self-watering containers. 2. Pupils discuss: how are the three types of reservoir planting systems different from conventional soil farming? Are reservoir planting systems suitable for their own home? Why or why not?	Cognitive Learning Assessment Teacher assesses pupils' responses about the differences between conventional soil farming and hydroponic farming, and the reasons for whether hydroponic farming is suitable for their own home.	
Experience and Inquiry	***Session 3: Sketch the Reservoir Planting System Model*** 1. Pupils work in groups to discuss which type of reservoir planting system is most suitable to do farming in their classroom. 2. Pupils make a rough sketch of the selected model with clear labels. 3. Pupils improve their sketch designs based on teacher's feedback.	Cognitive Learning Assessment Teacher checks the sketch design and gives feedback.	
Critical Analysis and Reflection	***Session 4: Presentation and Discussion*** 1. Teacher chooses the best sketch design of each of the three reservoir planting systems. 2. The three chosen groups present their sketch design and explain the reasons why they think this particular system is most suitable for farming in their classroom. 3. Pupils discuss with the teacher and vote on the most suitable model, considering the materials and equipment needed and classroom conditions.	Cognitive Learning Assessment Teacher listens to pupils' discussion to assess their understanding of the different types of reservoir planting systems and their uses.	

Action	***Session 5: Build and Maintain the Selected Reservoir Planting System Model*** 1. Based on the most voted model and sketch design, pupils and the teacher suggest improvements. 2. Pupils build the model based on the selected and improved sketch design. 3. Pupils discuss among themselves to choose suitable tools, equipment, and planting medium based on the classroom conditions and divide tasks among one another to build the model. 4. Pupils work together to maintain the model built throughout the year. 5. At the end of the school year, pupils reflect and discuss with the teacher: How effectively can reservoir planting systems help increase access to affordable, locally grown fresh food in urban areas?	Cognitive Learning Assessment Teacher assesses pupils' technical ability based on the built model. Behavioural Learning Assessment Teacher assesses pupils' efforts in maintaining the built model collaboratively.	

Table D16: Design and Technology project-based integration lesson plan

TIMELINE FOR PROJECT-BASED GCED INTEGRATION					
	Session 1	**Session 2**	**Session 3**	**Session 4**	**Session 5**
Design and Technology	Veggie Shopping	Discover Urban Farming	Sketch the Reservoir Planting System Model	Presentation and Discussion	Build and Maintain the Selected Reservoir Planting System Model

Table D17: Design and Technology project-based integration timeline

REFERENCES
Urban farming: addressing food security concerns (Free Malaysia Today) https://youtu.be/4M4B-gkIghc?si=hOE8GwnRzvhvhtVA
Learning about Vertical Farming (Malay Mail) https://youtu.be/md3SnVbV0S0?si=TwQN3eGl9RPTt1yc
*RBT TAHUN 5	LANGKAH-LANGKAH MENGHASILKAN SISTEM PENANAMAN SECARA TAKUNGAN* https://youtu.be/Yx8yacV2i3M?si=DbRWBLzejP47o9iO

Table D18: Design and Technology project-based integration references

7. SCIENCE AND ENGLISH LANGUAGE PROJECT-BASED INTEGRATION

Note how this lesson plan uses learner-centred strategies such as a combination of inquiry-based, experiential, and contextual learning (experiment on creating and practising their own healthy plate), as well as collaborative learning (discussion and reflection). Assessment methods include both summative and formative methods.

Subject: SCIENCE AND ENGLISH LANGUAGE (YEAR 4)	Topic: HEALTHY DEFECATION AND EATING HABITS	Duration: 8 SESSIONS (4 HOURS IN CLASS)

GCED Theme	Health and Wellbeing	
GCED Issue	Unhealthy eating habits	
GCED Context	A healthy defecation system is key to ensuring a healthy body and a healthy diet is essential to ensure our defecation system functions well. By cultivating pupils' awareness of the importance of healthy eating habits and their ability to practise a healthy diet, we can help prevent health-related problems.	
GCED Discussion Point	Learning to make informed eating choices that will help ensure a healthy body.	
Essential Question	How can healthy eating habits help ensure a healthy defecation system?	

BASED ON STANDARD-BASED CURRICULUM AND ASSESSMENT DOCUMENT (DSKP)		
	SCIENCE	**ENGLISH LANGUAGE**
Subject-related Skills	• Make inference • Observe • Hypothesise • Communicate	• Speaking • Writing
Content Standards	Excretion and defecation	• Use appropriate communication strategies • Communicate basic information intelligibly for a range of purposes, including in print and in digital media
Focus	• Importance of maintaining good defecation system in human body	• Manage interaction appropriately • Communicate basic information clearly

Learning Standards	• Make inference on the importance of discarding the products of excretion and defecation. • Explain observations about human excretion and defecation through creative sketches, infographic, writing, or verbal presentation.	Keep an interaction going in short exchanges by using suitable words: (i) to show understanding (ii) to ask for clarification Describe basic everyday routines.

LEARNING OUTCOMES	
Cognitive	• Pupils can discuss at least 2 good dietary practices that can help the body's defecation system. • Pupils can explain the effects of poor dietary practices on the body's defecation system.
Affective	• Pupils are able to openly discuss their defecation and eating habits with their peers.
Behavioural	• Pupils choose healthy foods high in fibre, demonstrating their commitment to good health practices, for a month.

Table D19: Science and English Language project-based integration at-a-glance

LESSON PLAN			
Phase	**Activity Implementation Method**	**Assessment Method**	**Notes for Teacher**
Understanding of Concept and Context	***Session 1: Understanding the Defecation System and Its Importance*** 1. The teacher uses diagrams to explain the primary organs involved in the defecation system. 2. The teacher and pupils discuss the function of each organ in filtering waste and maintaining body balance. 3. The teacher introduces the concept of constipation and demonstrates ,with props, how constipation affects the digestive process. 4. The teacher and pupils discuss common causes and symptoms of constipation.	<u>Cognitive Learning Assessment</u> Teacher assesses pupils' understanding of the connection between the human defecation system and dietary habits.	
Experience and Inquiry	***Session 2 (flipped classroom): Keeping a Visual Journal*** 1. For a week, pupils use a visual journal to document their daily eating habits with sketches or drawings of what they eat, and also to keep track of their toilet habits. 2. Pupils include captions with their sketches, detailing the type of food, portion sizes, and any reflections on their food-related choices.		

	Session 3: Conducting a Mini Survey 1. Based on guidelines given by the teacher, pupils work in pairs to draft survey questions related to an individual's eating habits and toilet habits. 2. Each pair of pupils joins up with another pair and asks each other the survey questions drafted. 3. In the groups of 4, pupils compile and create a bar chart based on the data they gathered on the frequency of their defecation habits, with the teacher's guidance. 4. Pupils brainstorm the factors that affect their defecation habits, especially how their eating habits may play a role.	<u>Affective Learning Assessment</u> Teacher observes whether pupils can openly discuss their own and others' dietary and defecation habits. <u>Cognitive Learning Assessment</u> Teacher listens to pupils' discussion to assess their ability to explain the effects of poor dietary practices on the body's defecation system.	
Critical Analysis and Reflection	**Session 4: Mini Survey Data Presentation** 1. Each group presents the bar chart they created and shares some ideas about how their group's eating habits are related to their defecation habits. **Session 5: Creating a Healthy Plate** 1. In groups, pupils discuss what makes a healthy plate that can prevent constipation: what are the necessary nutrients and what should their proportions be in a healthy and balanced diet? How can we incorporate local dietary habits and ingredients into a healthy plate? 2. Pupils make a hypothesis on how healthy plates will affect their defecation habits. 3. Pupils create their own healthy plate by drawing or pasting on a paper plate. **Session 6 (flipped classroom): Testing the Healthy Plate** 1. For a week, pupils practise following the healthy plate they created, and document their meals and also their toilet habits in their visual journal every day.	<u>Cognitive Learning Assessment</u> Teacher listens to pupils' discussion to assess their ability to explain the effects of poor dietary practices on the body's defecation system.	

	Session 7: Reflection on Healthy Plate Testing 1. Pupils return to their groups of 4 and reflect on their observations in the visual journal. 2. Pupils discuss whether the data gathered in their visual journals align with the hypothesis, and what they have learned about the relationship between dietary habits and defecation habits. 3. Pupils share suggestions with one another on how to improve their healthy plate to ensure a healthy defecation system.	Affective Learning Assessment Teacher observes whether pupils can openly discuss their own and others' dietary and defecation habits.	
Action	**Session 8: Practising the Healthy Plate** 1. Based on their improved healthy plate, each pupil sets two small, realistic goals related to their diet (e.g., "I will eat more vegetables" or "I will drink XX glasses of water") and defecation frequency. 2. Over the span of one month, pupils use their visual journal each day to track if they met their goals using fun stickers, stamps, or drawings (e.g., smiley face for success). 3. At the end of each week, pupils can briefly share in groups about their progress, and what they have observed or learned about what keeps their body healthy.	Behavioural Learning Assessment Teacher assesses pupils' visual journals to check to what extent they can practise 2 positive dietary changes over a month.	

Table D20: Science and English Language project-based integration lesson plan

TIMELINE FOR PROJECT-BASED GCED INTEGRATION								
	Session 1	**Session 2**	**Session 3**	**Session 4**	**Session 5**	**Session 6**	**Session 7**	**Session 8**
Science and English Language	Understanding the Defecation System and Its Importance	Keeping a Visual Journal	Conducting a Mini Survey	Mini Survey Data Presentation	Creating a Healthy Plate	Testing the Healthy Plate	Reflection on Healthy Plate Testing	Practising the Healthy Plate

Table D21: Science and English Language project-based integration timeline

The teacher may use this assessment rubric for project work, to score pupils' work against a set of criteria (participation, presentation, and outputs) and standards (excellent, good, and satisfactory).

PROJECT WITH GCED INTEGRATION – ASSESSMENT RUBRIC			
CRITERIA	EXCELLENT	GOOD	SATISFACTORY
Participation	• Very active participation • Encourages and supports team members • Shares good ideas and contributes significantly to discussions.	• Active participation • Supports team members • Shares ideas and contributes to discussions.	• Inconsistent participation • Sometimes supports team members • Shares ideas but need encouragement.
Presentation	• Presents clearly and confidently • Presentation can attract attention from peers • Answers all questions about the presentation well	• Presents somewhat clearly and confidently • Presentation can attract some attention from peers • Answers most of the questions about the presentation	• Presents with teacher's guidance • Presentation can attract little attention from peers • Answers a few of the questions about the presentation
Outputs	High quality output that: • Shows creativity and high effort • Fulfils all project needs and goals.	Good quality output that: • Shows creativity and effort • Fulfils most of the project needs and goals.	Minimally acceptable output that: • Shows some creativity and effort • Fulfils a few project needs and goals.

Adapted from (Buck Institute for Education, 2021)

Table D22: Assessment rubric for project with GCED integration

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