



# **Harnessing Technology to Cater for Learner Diversity**

## **IN THE SECONDARY ENGLISH LANGUAGE CLASSROOM**

JENNY LEUNG



# Learning Diversity

(ELE KLA Curriculum Guide 2017)



**Interactive  
teaching  
strategies**

**Multimodal  
texts &  
resources**

**Differentiated  
curriculum**

**Scaffolded  
tasks for  
different  
abilities**

**Formative  
assessment**



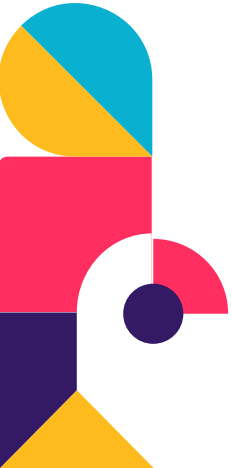
# Why should we address learner diversity?



**LEARNING**



**NOT ABOUT TEACHING**





# Differentiation

is a teacher's **proactive** response to **learner needs**

shaped by **mindset**

and guided by general **principles** of differentiation

By Tomlinson & Moon (2013)



# Today's journey

**REFLECTIVE**

+

**CREATIVE**




# Model of Differentiated Instruction

*“Differentiation is simply a teacher attending to the learning needs of a particular student or small groups of students, rather than teaching a class as though all individuals in it were basically alike.”*

- Carol Ann Tomlinson







# Model of Differentiated Instruction



**Content**



**Learning Environment**



**Process**

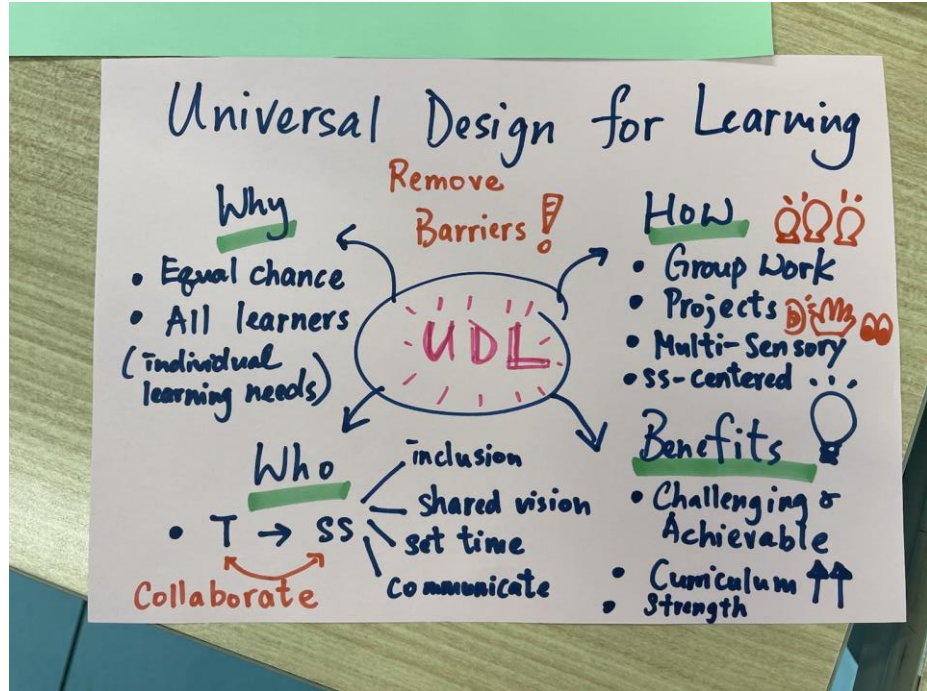


**Product**

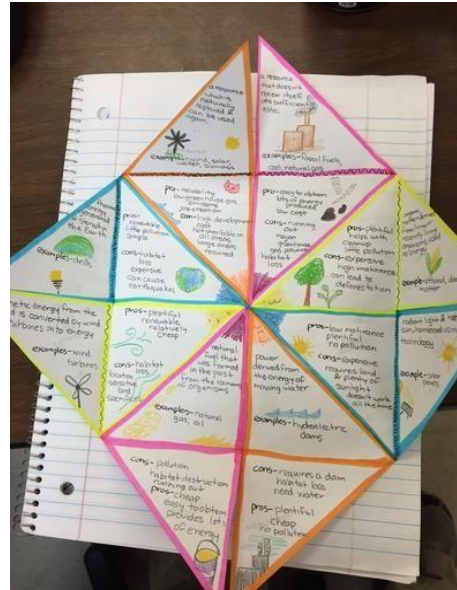


**CHOICES**  
 Remove Barriers

Past Continuous Tense < When? < While?  
 → Timeline long action (while): listening to the teacher  
 Past (x) wrote notes (short action) Present (x) Go through PPT  
 EBI (Even Better If):  
 ✓ Write notes (show ss how to)  
 ✓ Kahoot challenge  
 ✓ Animation  
 ✓ Pair Work  
 Barrier



# What is a foldable?





**Choices matter**



**Do they?**



# 3 Principles of UDL

**Engagement**

**WHY?**


**Representation**

**WHAT?**

**Action &  
Expression**

**HOW?**





# Model of Differentiated Instruction



**Content**



**Learning Environment**



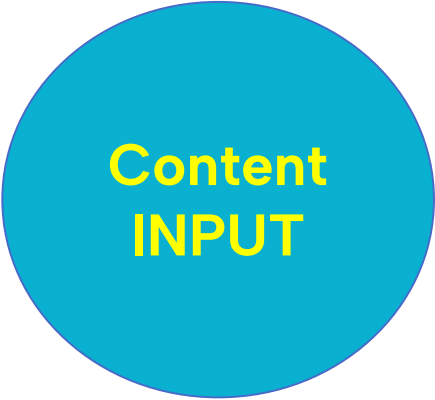
**Process**



**Product**



# Model of Differentiated Instruction



**Content  
INPUT**



**HOW to  
Process?**




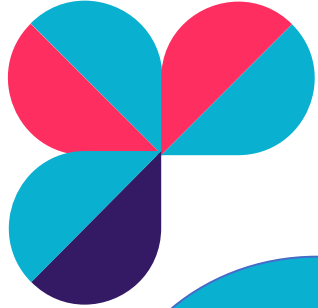
**WHAT to  
Produce?**

**+**

**Choices**







# Model of Differentiated Instruction



Content



Process



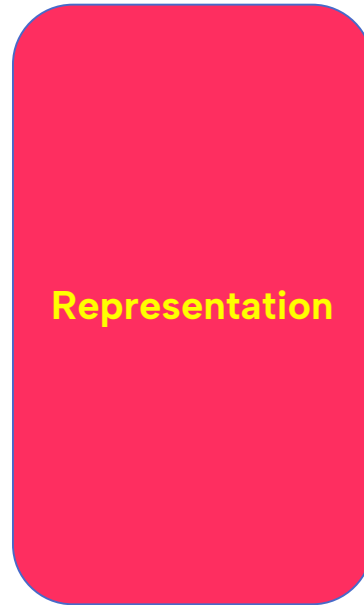
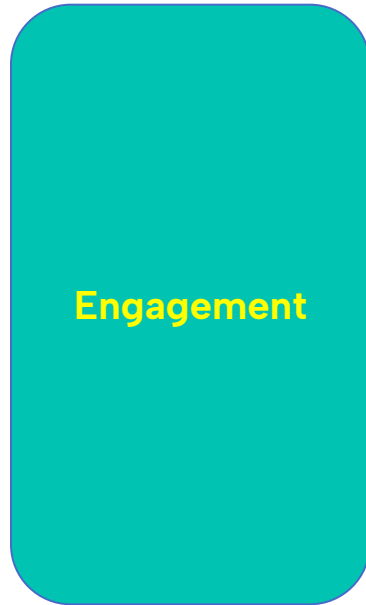
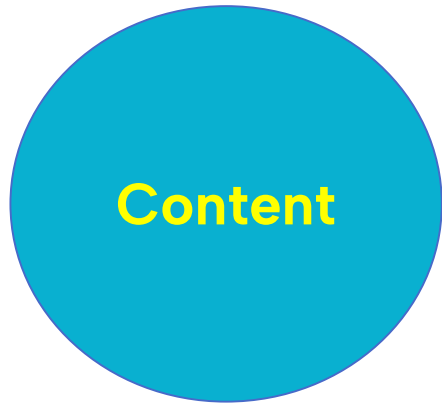
Product



Learning  
Environment



# Model of Differentiated Instruction



# Content

- **Provide multiple means of representing vocabulary/concepts (e.g. visuals, videos alongside text)**
- **Scaffold instructions through lesson planning tools like breaking activities into clear steps**
- **Provide enrichment materials for advanced students**
- **Use leveled texts at varying reading levels**
- **Present videos or lessons at different paces**
- **Curate supplemental digital resources**

# Reading: Levelled materials





# Levelled materials

**Newsela**

**<https://newsela.com/>**



# Levelled materials

**Poe**

**<https://poe.com/login>**

# Levelled materials

Explain what photosynthesis is to an absolute beginner

Photosynthesis is a process that plants, algae, and some bacteria use to make their own food. It's like a recipe that these organisms follow to convert sunlight, water, and carbon dioxide into glucose (a type of sugar) and oxygen. This process is very important because it helps plants grow, and it also produces oxygen, which we need to breathe.

Here's a simple breakdown of the process:

1. **Sunlight:** Plants and other photosynthesizing organisms have special structures called chloroplasts that contain a green pigment called chlorophyll. This pigment captures the energy from sunlight.
2. **Water:** The plant absorbs water through its roots from the soil.
3. **Carbon dioxide:** Plants take in carbon dioxide from the air through tiny openings called stomata, which are found on the surface of leaves.
4. **Chemical reactions:** Inside the chloroplasts, the energy from sunlight, water, and carbon dioxide are used in a series of chemical reactions to produce glucose (sugar) and oxygen. The plant uses the glucose as a source of energy to grow and develop, while the oxygen is released back into the air.

In summary, photosynthesis is a crucial process that allows plants to create food and release oxygen into the atmosphere, making it essential for life on Earth.

What is the Lexile level of this response?

As an AI language model, I cannot directly calculate the Lexile level of a text. However, based on my understanding of Lexile measures, I would estimate that the response provided is likely within the 900L to 1100L range. This is because the text uses mostly simple sentence structures and vocabulary that would be understandable to a wide audience, but it also includes some scientific terminology and concepts that may be more challenging for some readers. Keep in mind that this is just an estimate and the actual Lexile level might be different.

Then can you rewrite this response within a 350L-500L lexile level range.

Photosynthesis is a way plants make food. They use sunlight, water, and a gas called carbon dioxide. Plants have a special part called chloroplasts with a green color called chlorophyll. Chlorophyll helps catch sunlight.

Plants get water from their roots in the ground. They take in carbon dioxide from the air through tiny holes in their leaves. In the chloroplasts, sunlight, water, and carbon dioxide change into sugar and oxygen. Plants use the sugar to grow. They let the oxygen go back into the air.

Photosynthesis is important because it helps plants grow and gives us oxygen to breathe.

# Levelled materials

Can you create a travel blog, with around 900–1100 lexile level, introducing Hong Kong?

Sure, I can create a travel blog introducing [Hong Kong](#) with a [reading level](#) of around 900–1100 lexile. Here's a sample blog post:

## Discovering Hong Kong: A Vibrant City of Culture and Cuisine

Welcome to Hong Kong, a bustling metropolis that's full of energy, culture, and amazing food! This city is a fascinating blend of old and new, where ancient temples and modern skyscrapers coexist in perfect harmony. Let's take a closer look at some of the [top attractions](#) and experiences that Hong Kong has to offer.

One of the first things you'll notice in Hong Kong is the incredible skyline. The city is famous for its towering skyscrapers, including the iconic International Commerce Centre and the [Bank of China Tower](#). For the best views of the city, head to [Victoria Peak](#), which offers breathtaking panoramas of [Hong Kong Island](#) and the surrounding harbor.

But Hong Kong isn't just about modern architecture. The city also has a rich history and culture that's worth exploring. One of the best places to start is the [Man Mo Temple](#), a beautifully preserved shrine that's dedicated to the gods of literature and war. Another must-visit attraction is the [Big Buddha](#), a massive [bronze statue](#) that sits atop a mountain on [Lantau Island](#).

Of course, no trip to Hong Kong would be complete without indulging in the local cuisine. This city is a food lover's paradise, with everything from street food stalls to Michelin-starred restaurants. Be sure to try some of the city's signature dishes, such as dim sum, roast pork, and egg tarts. And for a truly unique experience, head to a dai pai dong, an open-air food stall where you can watch your meal being prepared right in front of you.

Finally, don't forget to take some time to explore Hong Kong's natural beauty. The city is home to several gorgeous parks and nature reserves, including [Hong Kong Park](#), [Kowloon Park](#), and the Sai Kung Peninsula. You can also take a ferry to one of the outlying islands, such as [Lamma Island](#) or [Cheung Chau](#), where you can hike, swim, or simply relax on the beach.

Hong Kong is a city that's full of surprises and delights. Whether you're interested in history, culture, food, or nature, there's something here for everyone. So come and discover this vibrant city for yourself – you won't be disappointed!



# Levelled materials

Use the same structure, lexile level, language pattern, write a travel blog to introduce Thailand

Sure, here's a [travel blog](#) introducing Thailand with a similar structure, [lexile level](#), and language pattern:

## Exploring Thailand: A Land of Smiles, Temples, and Delicious Cuisine

Welcome to Thailand, a country that's known for its friendly people, stunning temples, and mouth-watering cuisine! This vibrant nation is full of surprises and adventures, and there's something here for everyone. Let's take a closer look at some of the top attractions and experiences that Thailand has to offer.

First on the list is Bangkok, the bustling capital city that's a must-visit for anyone traveling to Thailand. Here, you can explore the magnificent [Grand Palace](#), a complex of stunning buildings that was once home to the royal family. You can also visit [Wat Arun](#), a beautiful temple that's famous for its intricate architecture and stunning views of the [Chao Phraya River](#).

But Thailand isn't just about temples and palaces. This country is also a food lover's paradise, with delicious dishes that range from spicy curries to refreshing papaya salad. Be sure to try some of the local specialties, such as pad Thai, [green curry](#), and mango sticky rice. And for a truly unique experience, head to a night market, where you can sample a wide variety of street food and mingle with locals.

Another highlight of Thailand is its natural beauty. From the [white sand beaches](#) of Phuket and Krabi to the lush jungles of Chiang Mai and Pai, this country is home to some of the most stunning landscapes in the world. You can go snorkeling, [scuba diving](#), or kayaking in the turquoise waters of the [Andaman Sea](#), or hike to waterfalls and [hidden caves](#) in the northern provinces.

And let's not forget about the people. Thailand is known as the "Land of Smiles," and for good reason. The locals are some of the friendliest and most welcoming people you'll ever meet, and they'll go out of their way to make you feel at home. Whether you're exploring the city or the countryside, you'll always be greeted with a warm smile and a friendly "Sawasdee!"

In conclusion, Thailand is a country that's full of wonders and delights. Whether you're interested in culture, cuisine, nature, or simply meeting new people, you'll find it all here. So pack your bags and come explore this amazing country – you won't be disappointed!

# Levelled materials

Write one more for Japan

Certainly, here's a [travel blog](#) introducing Japan with a similar structure, [lexile level](#), and language pattern:

## Discovering Japan: A Land of Tradition, Technology, and Unforgettable Experiences

Welcome to Japan, a country that's famous for its rich culture, cutting-edge technology, and incredible hospitality! This fascinating nation is full of surprises and adventures, and there's something here for everyone. Let's take a closer look at some of the top attractions and experiences that Japan has to offer.

First on the list is [Tokyo](#), the bustling capital city that's a must-visit for anyone traveling to Japan. Here, you can explore the city's many neighborhoods, each with its own unique vibe and attractions. You can visit the famous Tsukiji Fish Market, where you can sample some of the freshest sushi in the world, or go shopping in the trendy Shibuya district.

But Japan isn't just about the big cities. This country is also home to some of the most stunning natural landscapes in the world, from the snow-capped peaks of [Mount Fuji](#) to the tranquil gardens of Kyoto. You can hike through bamboo forests, take a dip in hot springs, or simply marvel at the beauty of the [cherry blossoms](#) in springtime.

Another highlight of Japan is its rich cultural heritage. From ancient temples and shrines to traditional festivals and ceremonies, this country is steeped in tradition and history. You can visit the iconic [Fushimi Inari Shrine](#) in Kyoto, where thousands of [torii gates](#) create a stunning tunnel of red, or attend a [sumo wrestling match](#), a quintessentially Japanese sport.

And let's not forget about the food. Japan is a culinary paradise, with a wide variety of dishes that range from sushi and ramen to okonomiyaki and yakitori. Be sure to try some of the local specialties, such as tonkatsu, udon, and matcha desserts. And for a truly unique experience, head to a izakaya, a traditional [Japanese pub](#), where you can sample small plates of food and drink sake with the locals.

In conclusion, Japan is a country that's full of wonders and delights. Whether you're interested in culture, cuisine, nature, or technology, you'll find it all here. So pack your bags and come explore this amazing country – you won't be disappointed!



# A human rights approach to AI


*Ethics of Artificial Intelligence*. UNESCO.org. (n.d.). <https://www.unesco.org/en/artificial-intelligence/recommendation-ethics>



# Model of Differentiated Instruction



Content



Learning  
Environment



Process



Product





# Model of Differentiated Instruction



**Process**



**Engagement**



**Representation**

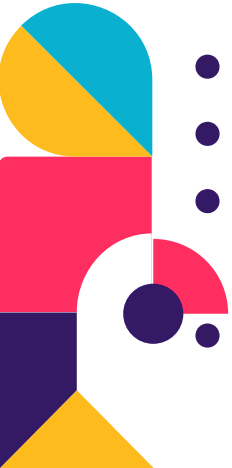


**Action &  
Expression**



# Process

- **Implement cooperative learning, project-based learning, choice boards**
- **Promote self-directed learning paths so students can learn at their own pace**
- **Provide feedback through varied formats like verbally, annotations, peer feedback**
- **Incorporate flexible grouping strategies**
- **Offer choice menus for projects and assignments**
- **Implement tiered learning tasks with varying support**
- **Employ multi-sensory activities addressing different modalities**




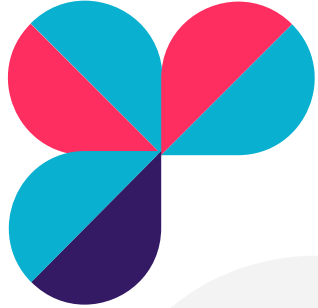
# Study Book



# Literature Tour








# Model of Differentiated Instruction



Content



Learning  
Environment



Process



Product



# Product


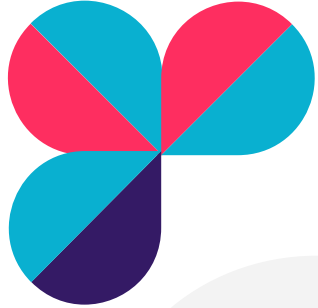
- **Allow options like videos, drawings, oral presentations for assessments**
- **Offer flexible options for expression of knowledge**
- **Allow varied grouping for collaboration on projects**
- **Use rubrics that assess different dimensions of learning**
- **Incorporate student interest/choice in topics for research**
- **Provide exemplars of work at different performance levels**

# Video making



# Creating a podcast





# Model of Differentiated Instruction



Content



Learning  
Environment



Process



Product



# Learning Environment

- **Design lessons around group work and pairings for collaborative learning**
- **Make resources and materials accessible in multiple formats**
- **Foster an inclusive culture through varied means of engagement, representation and action/expression**
- **Utilize learning zones for both individual and group work**

# Learning Environment

- **Establish protocols for peer support (e.g. study buddies)**
- **Incorporate classroom jobs/roles promoting student ownership**
- **Display student work showcasing diverse perspectives/abilities**
- **Employ visual/auditory supports as reminders and references**

# Mixed mode (Blended Learning)





# Digital showcase





# **Spatial Art Galleries**