

The Cambridge curriculum

How the Cambridge curriculum supports holistic development of knowledge, skills, understanding and attributes – preparing learners to thrive

Claire Varlet-Baker
Director, Products & Services, International Education

April 2025

What I will be covering:

- A curriculum designed for you
- Progression for schools, teachers and learners
- A holistic development of the learners



Learners

The Cambridge curriculum

Designed for you today and for your future

**Schools
and
teachers**

Built on evidence and research – ensuring the knowledge, understanding, skills and attributes in our curriculum are right for your learners now and can keep pace with rapid change

Subject-structured
approach

Broad learning
experiences

Aligned and
coherent support

Curriculum impact on
learners

Preparing learners

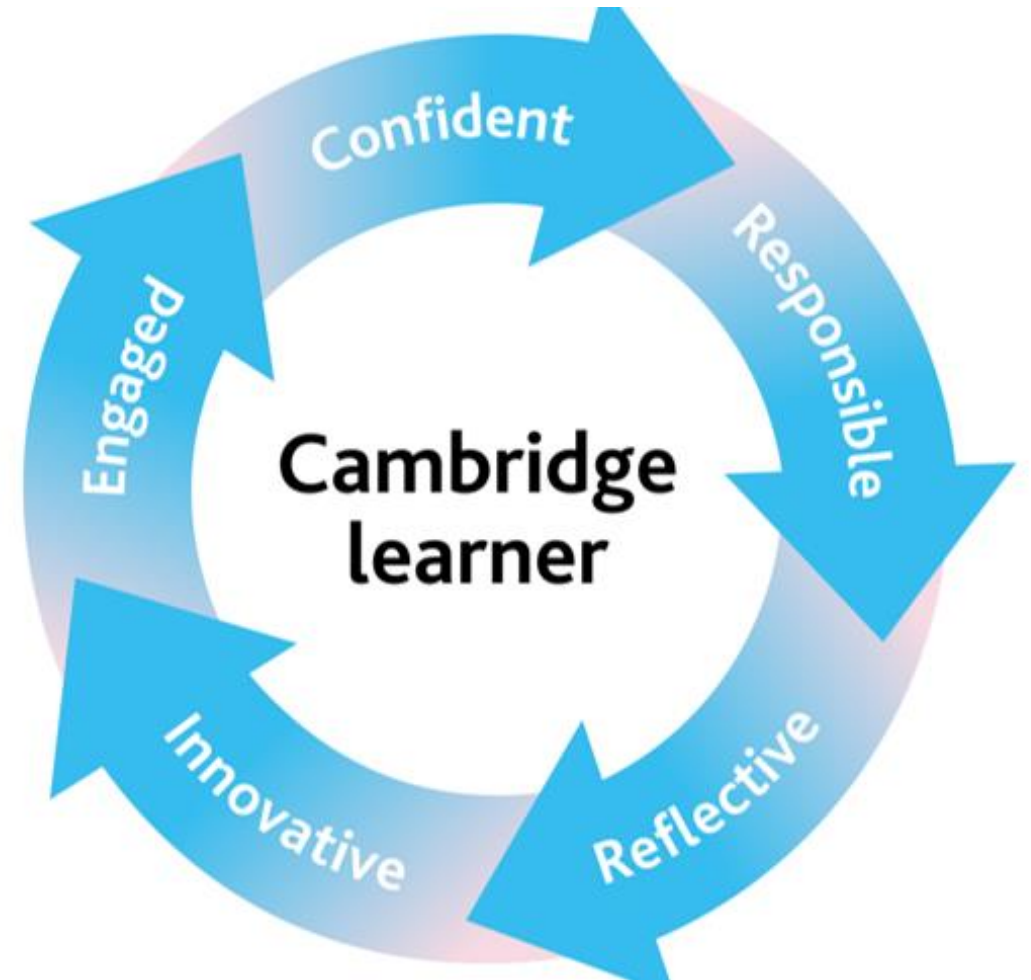
Learners need an education that prepares them to **embrace change** with **confidence**, **creativity** and **connection**. A good education provides foundations of **knowledge**, **understanding**, **skills** and **attributes**.

Our vision

We **listen** to school's needs, **respond** with pace and focus, and create **impactful**, **inclusive** and **innovative** solutions to ensure all Cambridge learners are ready for the world

Our Cambridge learner attributes

- Cambridge learners are **confident**, **responsible**, **reflective**, **innovative** and **engaged** – with these attributes Cambridge learners are ready for the world.



Cambridge Pathway

A clear path for educational success from age 3 to 19

**Cambridge
Early Years**
Age 3+

**Cambridge
Primary**
Age 5+

**Cambridge
Lower Secondary**
Age 11+

**Cambridge
Upper Secondary**
Age 14+

**Cambridge
Advanced**
Age 16+

Cambridge Professional Development for teachers and school leaders

Ready for
the world



Why **skills** matter



A focus on higher-order thinking skills

- Cambridge International AS & A Levels value them
- Valued by universities and employers
- They are crucial and appropriate for the effective use of AI tools. They help us assess the applicability of AI to specific tasks and create prompts that generate optimal content.
- Underpin the Cambridge learner attributes.



What do we mean by higher order thinking skills?

Thinking in systems

Problem-solving and decision-making approach that explore the relationships and dynamics among components of a complex system.

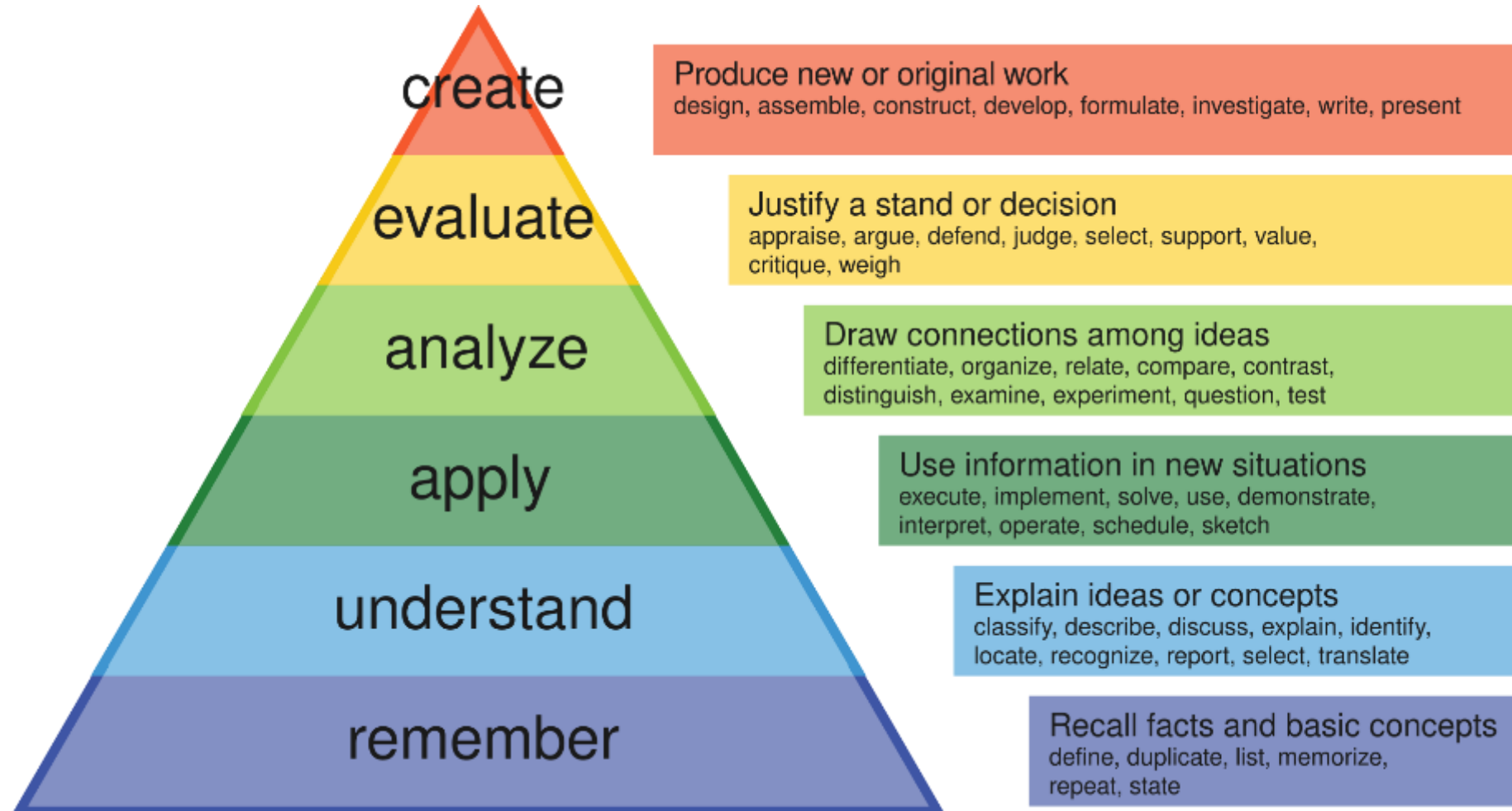
Analogical thinking

The cognitive skill of using a comparison between two or more things that are similar in some way to understand or solve a problem.

Metacognition

The processes involved when students plan, monitor, evaluate and make changes to their own learning behaviours, and reflect on them afterwards.

Revised Bloom's taxonomy of learning (2001)



Skills versus knowledge

- A curriculum cannot effectively address one without the other
- Thinking occurs when we combine information from our environment with information in our long-term memory
- Why does it matter?



Thinking skills and exam technique

- Understanding instructions
- Time management
- Test-taking strategies
- Reviewing and checking work
- Focus and concentration



Getting ready for the future: **digital assessment**



Listening to schools



Students



Teachers

- + Many would prefer a shift away from **only** using end of year exams – towards coursework and project-based work
- + Teachers/school leadership would like to support development of wider skill sets and competencies – such as critical thinking and communication
- + Teachers and students would like assessment to be more closely linked to teaching and learning – subjects already taught digitally should be assessed digitally
- + Teachers would like to do more to support students' deeper subject understanding
- + Would like to have richer assessment data to support tracking, evaluation and improvement

- Learning “exam technique” takes time away from deeper subject know-how but is seen as a necessary evil
- There is a lack of time to cover the whole curriculum well enough for which teachers and students find frustrating
- Students may experience “one bad day”; teachers worry that may not reflect overall performance fairly.

Listening to universities and employers

— Students lack core digital skills when they start university in Y1. Many courses need to teach in first semester:

- Digital literacy
- Data analysis and interpretation

+ Employers and HE would value students' demonstration of practical applications of knowledge

- sharing and reviewing others' code
- working with GIS
- better digital communication and collaboration.

"If our students had higher levels of digital literacy and data skills on entry and thus greater confidence when dealing with data, we would have a different starting point, which would be good!"

Professor of Historical Geography, Queen Mary University, London



Higher
education



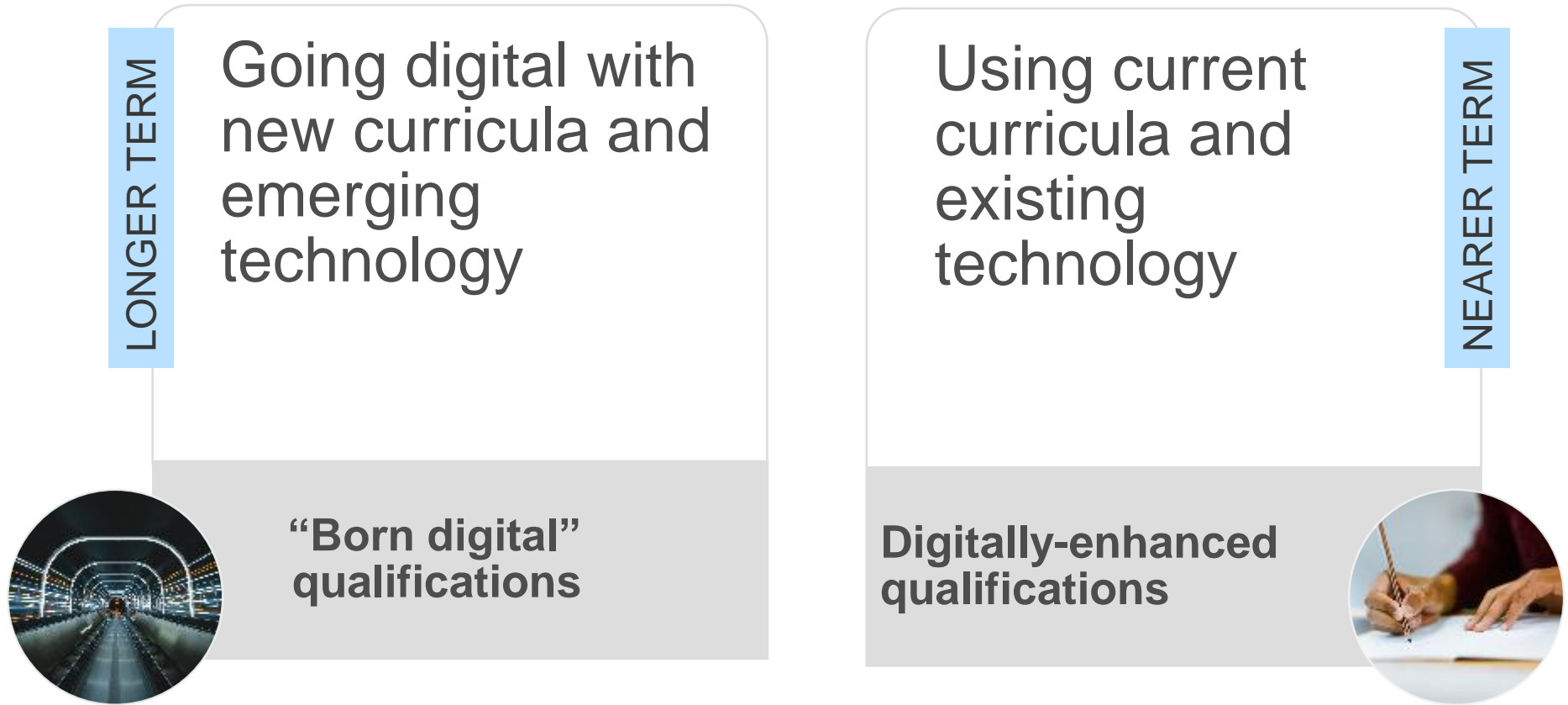
Employers

What are the benefits of digital assessment?

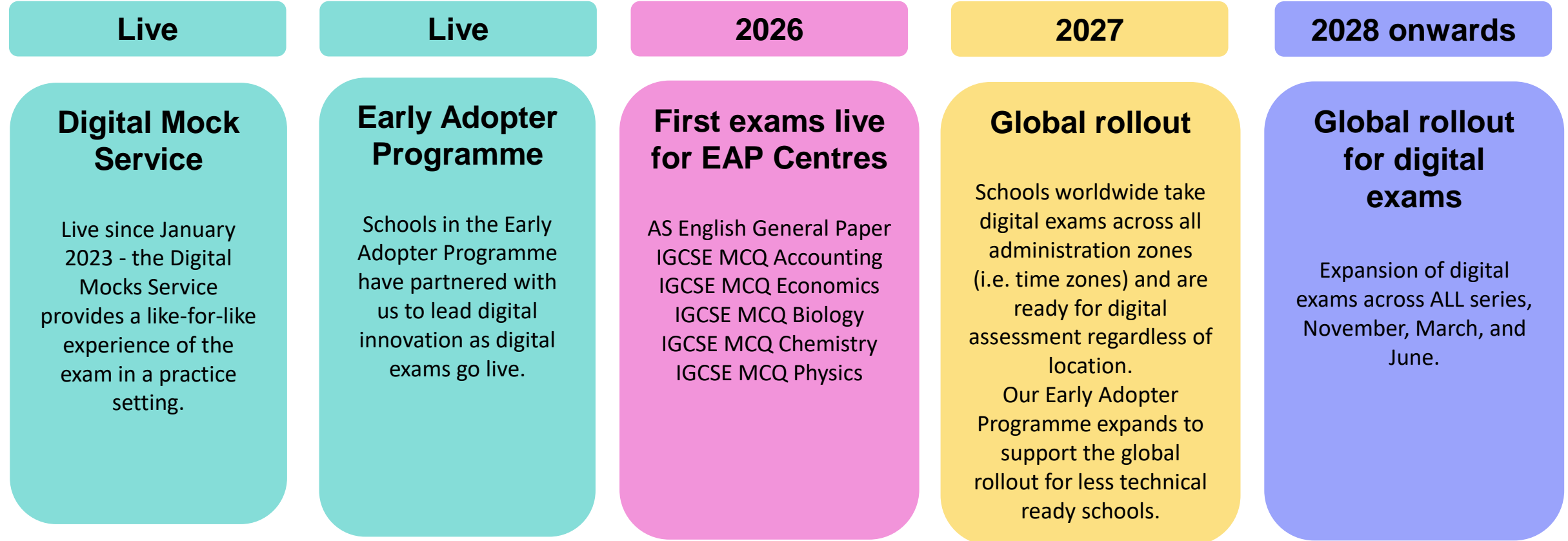
- Improve **accessibility**
- Improve **authentic** learning and assessment of skills
- Potential to improve **student outcomes** and subject depth
- Recognise and enable the **digital literacy** of learners
- Enable collection and use of rich **data** to support learning
- Offer more **contingency** capacity in delivery – for example, to manage natural disasters and other disruptions
- Reduce Cambridge's **carbon footprint**.



We're taking two routes to innovation in assessment



How we are getting there



Aim: 85% of our exams in both digital and paper-based format by 2033

What our customers say...

“Digital mock helps candidates to know how well they are prepared for the upcoming examination, and they will also know what concept/topic needs to be reviewed.” Teacher, Indonesia

“Cambridge Digital Exams Service has allowed us to give students a seamless, intuitive exam experience. It's a great step forward in digital assessment.” Exams Officer, Bahrain

“Overall, it was a very good experience. It was very straightforward, and the features allowed me to make use of my time efficiently.” Student, Qatar

Learners

We care about you and your progress

Schools and
teachers

We provide you with everything you need to optimise your teaching and learning every day

Formative feedback to keep progressing and improving.

Formative feedback driven by unparalleled data.

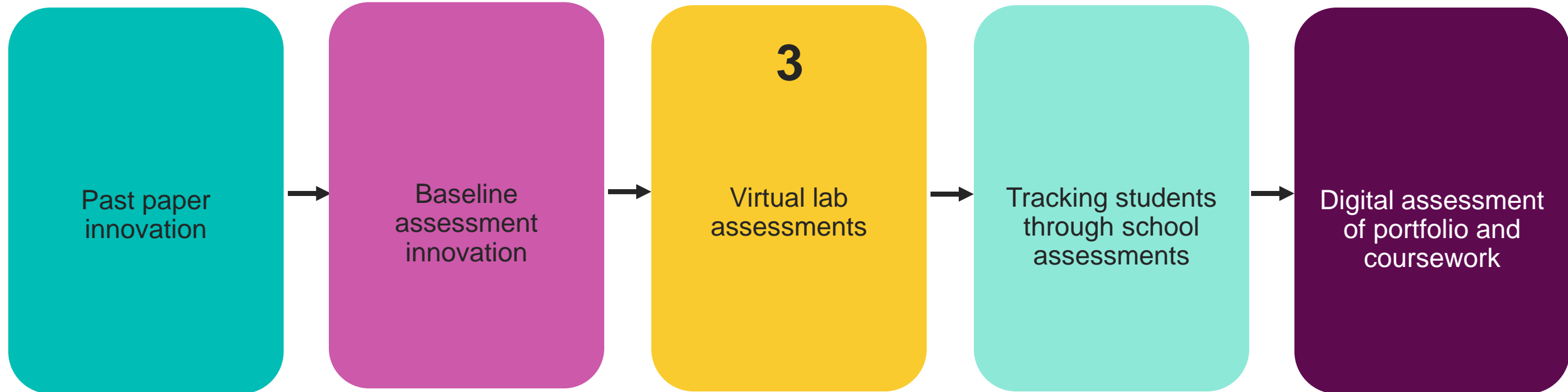
The importance of language in enabling progress.

The importance of wellbeing to thrive.

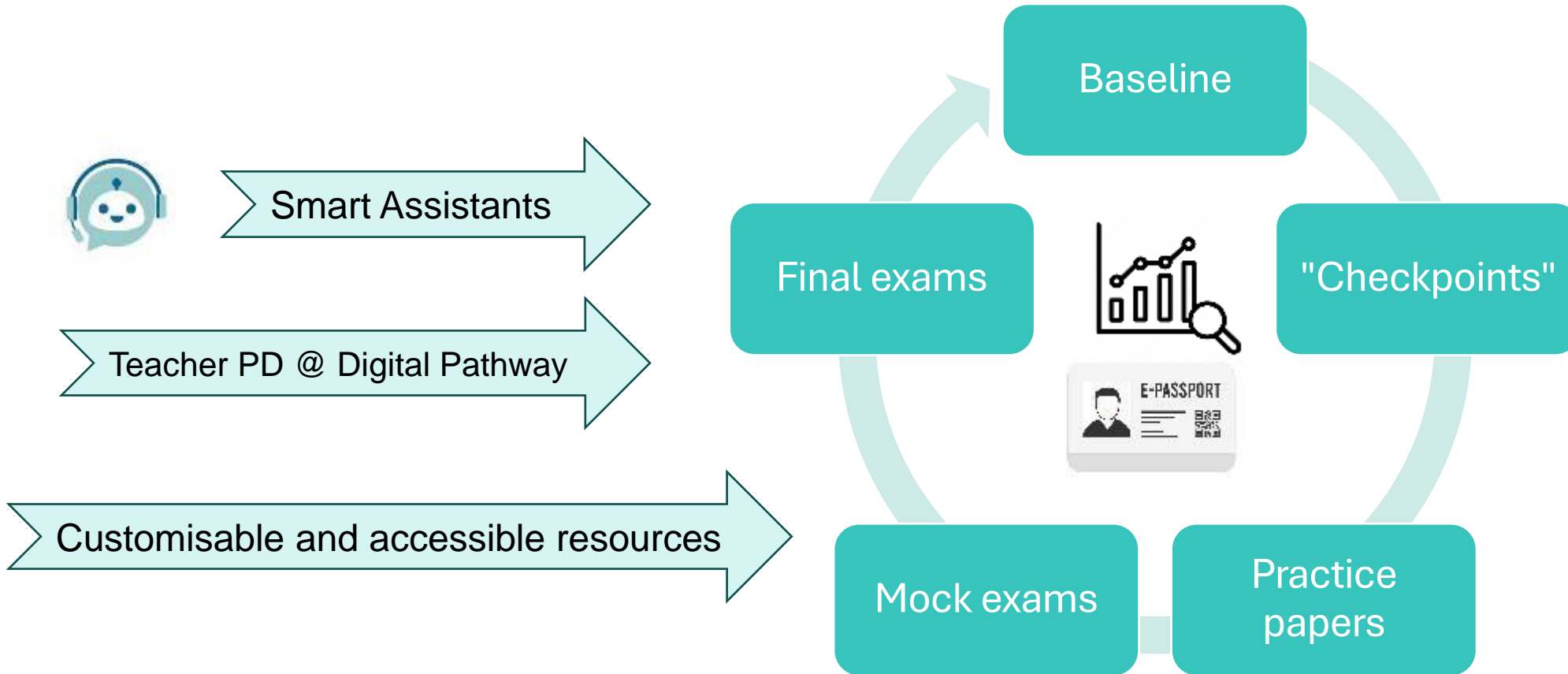
Formative feedback on student progression and attainment



Actionable insights on learner progression



A new digital pathway helping students to progress, and to celebrate their school achievements



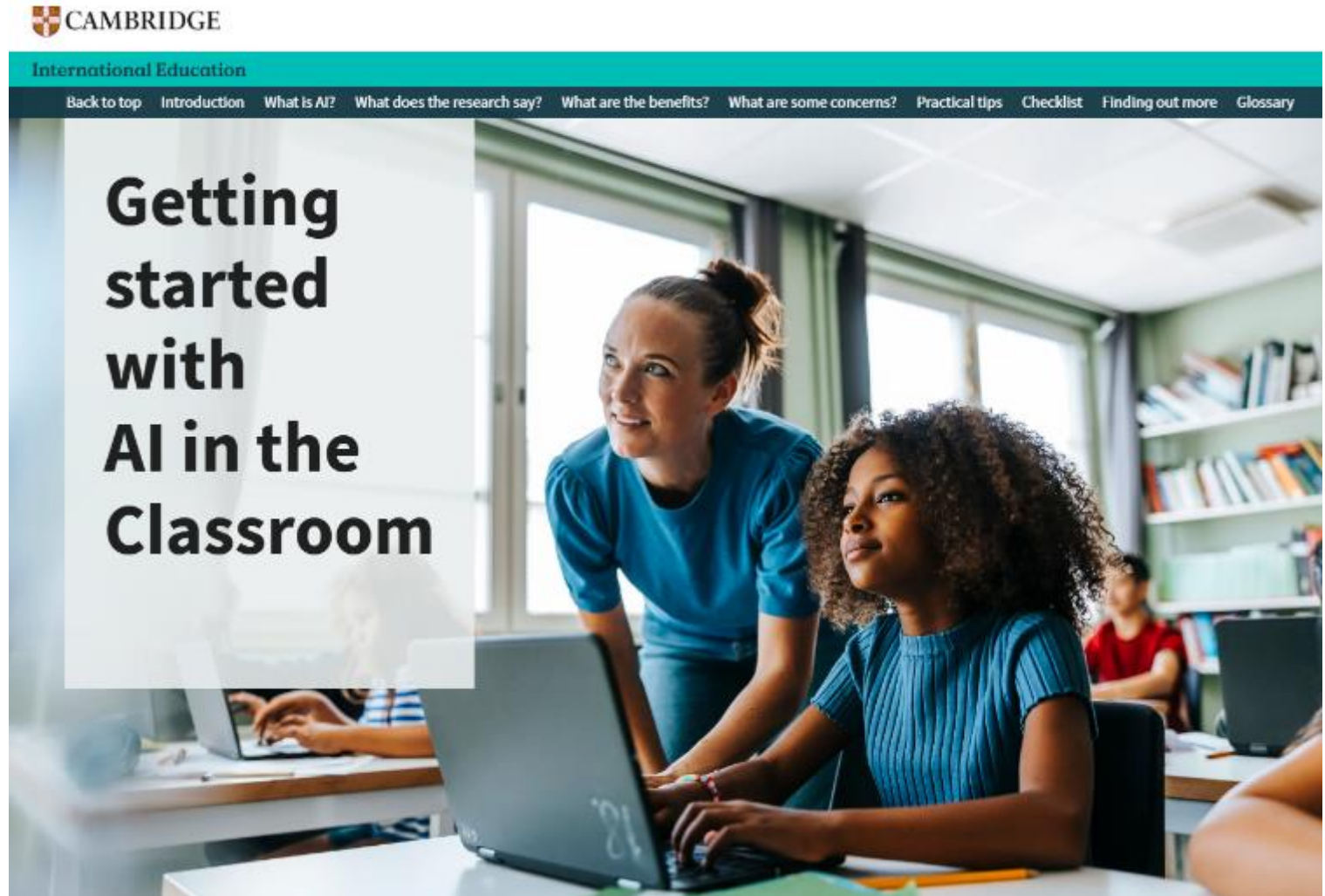
Smart Teacher Support: Giving teachers time back with AI



Getting started with AI in the classroom

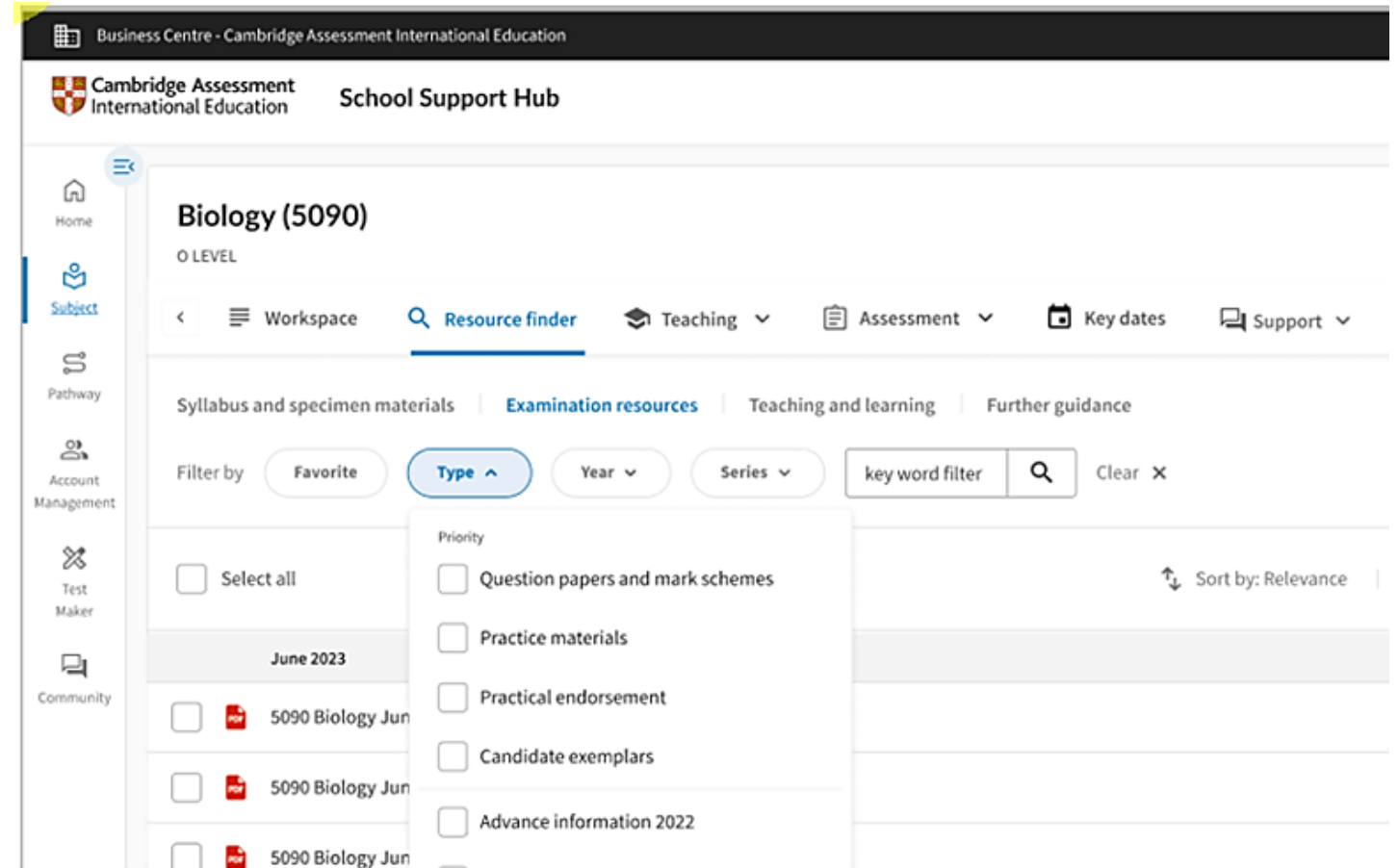
- Exclusive preview of the resource

<https://preview.shorthand.com/B5J2T3jXsKdekFYR>



School Support Hub update

- Intelligent search
- Powerful filtering
- Notifications
- Favouriting resources



How can I refine my assessment for learning practice in biology?

AI Assistant (Pilot)

Provides teachers with the support they need, when they need it:

- Help teachers locate what they want
- Allow teachers to ask questions about the Cambridge offer
- Trained on documents *and* pedagogical guidance
- Doesn't hallucinate
- Links to relevant documents & guidance

To refine your Assessment for Learning practice in Biology, the scheme of work provides several strategies and resources:

- **Learning Objectives:** Clearly communicate the knowledge learners are building. Express these as what learners are learning about or to do.
- **Suggested Teaching Activities:** Use active methods beyond lectures and videos to motivate learners and practice new skills.
- **Resource Plus:** Utilize videos and interactive teaching resources to develop learners' practical skills and engage them with challenging syllabus topics. More information can be found at the Cambridge International support website.
- **Extension Activities for A Level:** Challenge more able learners with further activities beyond the basic course content, fostering innovation and independent learning.
- **Independent Study:** Encourage learners to develop their understanding with minimal direct input, allowing them to explore ideas

Your message...



Example AI Assistant

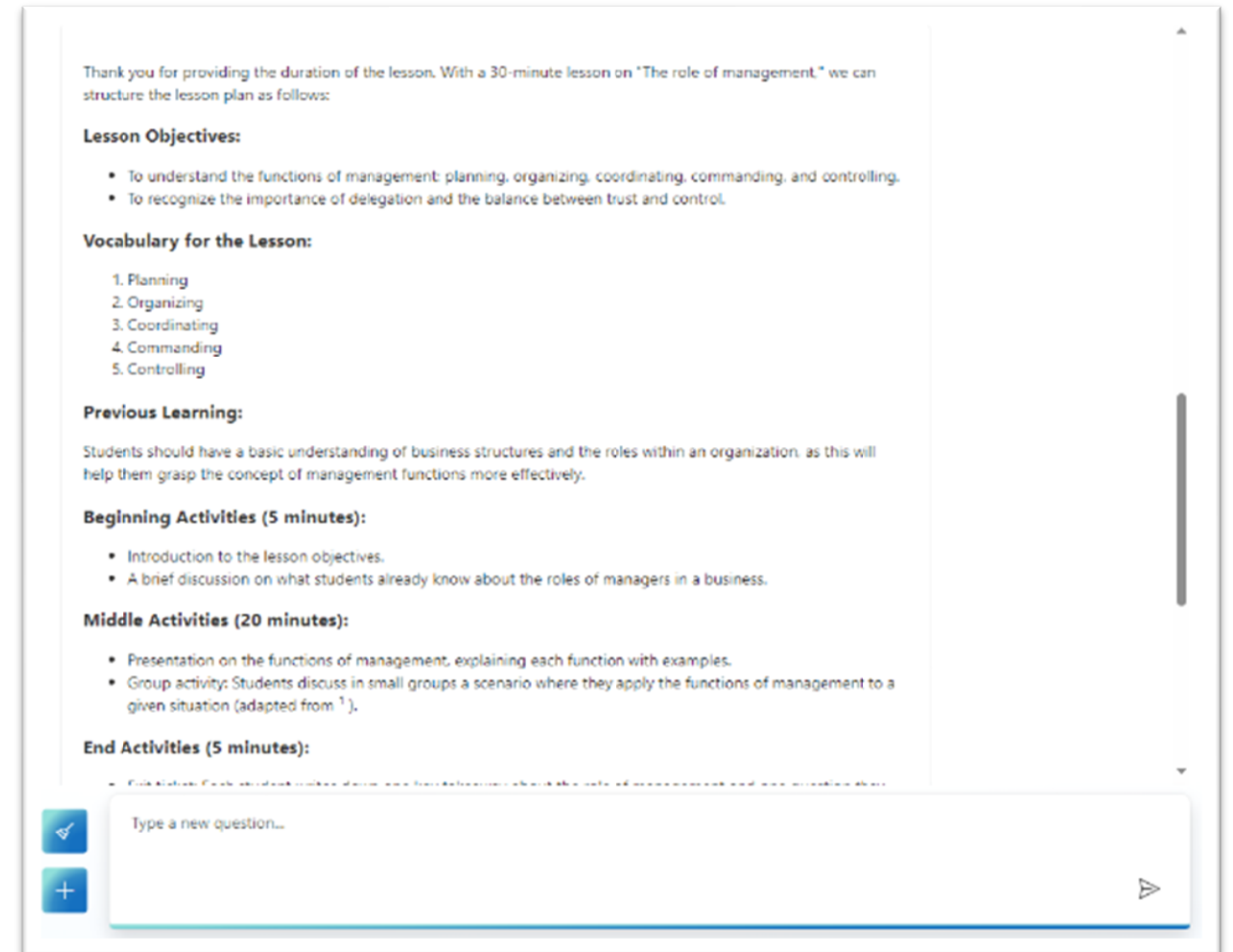
- Trained on:
 - ✓ Syllabus
 - ✓ Scheme of work
 - ✓ Pedagogical approaches
- Conversational approach
- No hallucination – it tells the truth
- [AI Studio](#)

Cambridge IGCSE Biology



AI Lesson Planner (Pilot)

- Chatbot provided with access to syllabus documents, schemes of work, and teacher's guide for Cambridge IGCSE Business Studies
- Uses the Cambridge lesson plan template
- Ability to personalise and refine lesson plan through the chat interface, and export lesson plan as Word doc



Thank you for providing the duration of the lesson. With a 30-minute lesson on "The role of management," we can structure the lesson plan as follows:

Lesson Objectives:

- To understand the functions of management: planning, organizing, coordinating, commanding, and controlling.
- To recognize the importance of delegation and the balance between trust and control.

Vocabulary for the Lesson:

1. Planning
2. Organizing
3. Coordinating
4. Commanding
5. Controlling

Previous Learning:

Students should have a basic understanding of business structures and the roles within an organization, as this will help them grasp the concept of management functions more effectively.

Beginning Activities (5 minutes):

- Introduction to the lesson objectives.
- A brief discussion on what students already know about the roles of managers in a business.

Middle Activities (20 minutes):

- Presentation on the functions of management, explaining each function with examples.
- Group activity: Students discuss in small groups a scenario where they apply the functions of management to a given situation (adapted from ¹).

End Activities (5 minutes):

- Evaluation: Each student makes a plan, one from business about the role of management and one illustrating their...

Type a new question...

Cambridge Outlook Magazine: Special Issue on digital exams and AI



[Link](#)

Shape your world with Cambridge.

An international curriculum that recognises the diversity of our learners and schools and empowers them to make the choices that are right for them.

Flexible curriculum
routes

Help to navigate local
contexts

The importance of
learners' voice

Respect for the diversity
of our communities.

Cambridge education:

- is accessible and inclusive.
- develops cultural and global awareness.
- instils ethical values and moral principles.
- encourages learners to actively participate in their communities and contribute to social well-being.



“Adolescent well-being is intrinsically important ... [and] is a substantial driver of educational outcomes.”
OECD 2019

Curriculum structure



Understanding myself

- Identifying emotions
- Managing emotions
- Healthy habits

My relationships

- Healthy relationships

Navigating my world

- Staying safe
- Dealing with change
- Making a difference

Cambridge Wellbeing Check

Quickly identify students who need extra support with their wellbeing.

- Grounded in world-leading research
- Delivered on an easy-to-use digital platform
- Takes just 20 minutes to complete



Cambridge Wellbeing Check

See a clear picture across:

Feelings



Life satisfaction

how much students experience contentment and overall life satisfaction.



Negative emotions

how much students experience anxiety, stress and/or sadness.

Functioning



Interpersonal wellbeing

how much students experience feeling connected to others in school, that those people care about them, and that they are valued.



Competence wellbeing

how much students experience competence, self-confidence, fulfilment, and purpose.



cem.org/wellbeing

Listening to you and working with you

- To **understand** what you need
- To **respond** to your needs and support you
- To **improve** education and better prepare learners for the world.





Thank you!

claire.varletbaker@cambridge.org