

Sciences Curriculum Improvement Cycle (CIC)

Senior Phase Focus Group Report

Session 1 – 20 June 2025

August 2025

# **Executive summary**

On 20 June 2025, a Sciences Curriculum Improvement Cycle (CIC) Focus Group met for initial discussions to review the current senior phase curriculum and pathways for sciences and consider options for a revised sciences curriculum. The focus group is an integral part of a coherent 3-18 approach to reviewing the sciences curriculum and was established to support the work being taken forward by the Sciences CIC Collaboration, Core and Critical Friends Groups. The focus group was established following a discussion with the Core Group members who agreed that the diversity of pathways the sciences senior phase curriculum necessitated a dedicated forum for discussion and thinking. The thinking, ideas and output from the focus group will be shared with Collaboration, Core Group and Critical Friends Groups to ensure a coordinated and coherent 3-18 approach to curriculum review. This report has been produced to support this process.

Focus group participants were selected primarily from the pool of Sciences CIC Critical Friends, specifically those who indicated that articulation between the broad general education (BGE) and the senior phase was an area of interest. Expressions of interest were also sought from the wider Collaboration Group. There were 23 attendees on the day, of which 16 were practitioners. Other partners, including representatives from industry, Skills Development Scotland, Learned Societies and Scottish Government, made up the rest of the group.

The day involved discussions to:

- Explore learner needs
- Consider the output from Collaboration Group Day 2 event, looking at how the suggested knowledge concept headers and big ideas might work in senior phase
- Discuss future-oriented senior phase curriculum and pathways
- Consider the purpose, current use and preferred model for CfE fourth level.

The summary of the outputs from the various activity sessions are outlined below.

#### Session 1 - Exploring learner needs

Using stimulus materials which provided evidence of skills, labour market and future trends, participants identified what would be critical or very important for learners in the future.

#### Critical

- o Critical thinking
- Adaptability
- Creative thinking
- Literacy
- Numeracy
- Interpersonal skills

#### **Very important**

- Handling information / disinformation
- Managing change
- Communication
- Teamwork
- Innovation
- Scientific literacy
- Practical skills
- Independence

All five groups identified skills development as being critical for learners. Other points identified:

- A core knowledge base
- Learners are able to make informed choices, both locally and globally, around things like their health and the environment
- Science identity
- Importance of linking science learning to their futures

- Using labour market information
- Need to change assessment methods.

#### Session 2 - Reviewing Collaboration Group Day 2 output

**Part 1** – Participants were given a partially processed output from the Sciences CIC Collaboration Group Day 2 event held on 12 June 2025. This included some initial suggestions for concept headers. Participants were asked to group common words and select those they felt would be appropriate for the senior phase curriculum.

Concept headers (summary of suggestions by this focus group).

Four groups identified:

- Sustainability
- Materials
- Energy
- Interdependence

Three of the four groups identified:

- Chemical changes
- The Universe/beyond Planet Earth
- Waves
- Forces
- Environment

Other concepts headers were also identified.

**Part 2** – Similarly, they were then presented with partially processed big ideas from the collaboration day and again asked to develop these and select which they felt would be appropriate for the senior phase curriculum:

Big ideas (summary of suggestions by this focus group):

- Sustainability and environment
- Our world and beyond
- Energy, forces, waves, and electricity
- Materials, matter, and chemical processes
- Science identity and practical skills

Please note: we recognise that the big ideas listed above do not include a focus on biological sciences. This was perhaps due to the fact that a number of biology teachers who had been invited were unable to attend on the day. We've recognised this as a gap and will seek to address these at future sessions of the focus group.

**Part 3** – Groups were then presented with a mapping document, showing possible alignment between the big ideas suggested by the Collaboration Group for the BGE, and the current examined senior phase pathways, including the National Qualifications. Participants annotated these with suggestions.

#### Session 3 – Future-oriented senior phase curriculum

Participants were asked to consider the senior phase curriculum offer and how it can be future-orientated.

A number of aspects were felt to be working well which could be built on. This included clear and structured progression pathways in the senior phase, and the value of summative and standardised assessments which ensure consistency across levels, and which provide helpful tracking data.

Courses like Skills for Work and NPAs were felt to offer valuable options for future learners, as they promote practical skills and meet diverse learner needs. N5 – Advanced Higher Sciences National Qualifications were also mentioned. The view of participants was that alignment between BGE and senior phase needs to be improved in the revised curriculum. They suggested that the value of different qualifications needs to be promoted and better understood. Courses such as Horticulture and Climate Change and Sustainability were mentioned but participants felt these would require further financial investment in practical resources for these to be viable.

In a future-orientated sciences curriculum, participants also expressed the need for a range of assessment methods to ensure accessibility. They felt that skills should be an embedded feature of learning, especially practical skills. Personalisation and choice were identified as being important also, possibly involving a modular approach and providing flexibility to allow learners to move between pathways.

In the course of discussions, challenges with the senior phase curriculum, as perceived by practitioners, emerged.

#### Session 4 - Fourth level

Participants were asked whether the purpose of fourth level was clear and how they currently use it. Most said it was unclear, and the use of fourth level is inconsistent across the country. Some use fourth level to prepare learners for National Qualifications (in S3 for example), some use to extend and challenge pupils in the BGE, and others don't use it at all.

Participants were asked for suggestions on how fourth level could be better utilised:

- Using S3 and fourth level as an opportunity to embed skills and wider achievement (e.g. learn about careers and achieve accreditation for opportunities such as Duke of Edinburgh and Young STEM Leader awards). It was suggested that this may assist with closing the gap learners who achieve third level in S2 have the chance to embed and apply knowledge in new contexts, while allowing those learners who have not achieved third level the opportunity to make further progress at this level.
- Use as an introduction to each discrete science, with opportunity for learners to achieve unit accreditation and have a better idea of strengths to make informed decisions during option choices.
- A two-year S3/4 course to allow for sufficient time for breadth, depth and practical work.

#### Session 5 - Plenary

Lastly, participants were invited to share what they thought worked well in this focus group session and what still needed to be discussed.

Following on from this initial focus group, membership will be rotated to include new perspectives, with the group likely to continue discussions online and provisionally meet again in November 2025 to continue discussions specific to the senior phase. The Core Group will meet for a two-day workshop on 28 and 29 August 2025. They will review the output from the Collaboration Group event on 12 June 2025 in tandem with this report and some feedback from children and young people. We aim to have draft big ideas for the sciences curriculum by September/October 2025, and a draft 3-18 sciences curriculum for consultation by summer 2026.

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# Introduction and background

In response to the 2021 OECD Review of Scottish Education, which called for a more coherent and dynamic curriculum development process, Education Scotland launched the Curriculum Improvement Cycle (CIC). This national initiative aims to evolve Scotland's curriculum through structured, evidence-informed collaboration, guided by three foundational discussion papers:

- 1. <u>Background and A Case for Change</u> drawing from pilot curriculum reviews to outline the rationale and urgency for reform.
- 2. <u>Towards an Evolved Technical Framework</u> proposing a 'Know–Do–Understand' model to improve curriculum coherence and progression.
- 3. <u>Working Together to Make Change Happen</u> focusing on the collaborative processes and partnerships required to realise meaningful change.

As part of this broader curriculum transformation, the Sciences CIC was established to co-design an updated 3–18 sciences curriculum. Central to this process is the **Sciences CIC Collaboration Group**, a diverse body of 118 members, including educators, sector representatives, partners from STEM organisations, and researchers.

This group has now met on two occasions, the first in November 2024 to begin initial discussions around the direction of the Scottish sciences curriculum. From this larger group, a Core Group of 36 participants was formed to lead focused development work using the output from the Collaboration Group event. The Core Group was selected via an open recruitment process to ensure sectoral diversity and geographical spread, with 64% of its members being current practitioners. Members represent all phases of education — from early years to post-secondary education—and bring expertise from 17 of Scotland's 32 local authorities, as well as national STEM and science bodies. The Core Group engaged with the Collaboration Group output, together with other research, during a four-day workshop from 13-16 March 2026. A report of this work was produced and shared with the Collaboration Group, who met again on the 12 June 2025. The aims of this session were as follows:

- To refine a draft rationale statement for the sciences curriculum
- To consider the core science knowledge required by learners in the Broad General Education (BGE)
- To group the core knowledge into concepts
- To give shape to emerging big ideas for the sciences curriculum.

Given the ambitious nature of the aims outlined above, the decision was taken to focus only on the sciences broad general education curriculum at Collaboration Day 2. This was purely due to a capacity issue at it was felt to be too ambitious to meaningfully consider both the sciences BGE and senior phase curriculum at the same event, especially given the diversity of sciences pathways in the senior phase. However, given that the CIC review encapsulates the 3-18 curriculum, a complementary sciences CIC senior phase focus group was felt to be required to provide a dedicated forum to give further thought to the senior phase. Participants for the Sciences CIC Senior Phase Focus Group were selected primarily from our pool of Critical Friends, specifically those who indicated that articulation between BGE and the senior phase was an area of interest. Expressions of interest were also sought from the wider Collaboration Group. There were 23 attendees on the day, of which 16 were practitioners. Other partners including representatives from industry, Skills Development Scotland, Learned Societies and Scottish Government made up the rest of the group.

On 20 June 2025, the group met for initial discussions to review current senior phase curriculum and pathways and consider options for a future revised sciences curriculum. It was made clear to participants that the process would be iterative and that outputs from the focus group will be sense checked and refined with the work of the Core/Collaboration groups. It was also anticipated that further senior phase focus group sessions, beyond this initial session, would be required.

This document is intended to give a summary of the activities undertaken by the initial senior phase focus group on 20 June 2025, and to provide an overview of the ideas and suggestions that emerged. All of the materials used, such as the presentations and stimulus materials, are available to view on the <a href="mailto:session">session</a> <a href="mailto:Padlet">Padlet</a>, alongside photographs of the notes made by participants on flipcharts and post its during each activity and typed raw output.

In trying to summarise, please appreciate that some of the nuance will be lost. In some instances, due to the nature of the returns made, it is not possible to provide summaries or thematic analyses. Where this is the case, it has been stated, and it is recommended the reader views the images of the returns on the Padlet.

If you have any questions or feedback about the content of this report please contact our team on email: science@educationscotland.gov.scot

# Session 1 – Exploring learner needs

#### **Purpose**

To review stimulus materials to discuss what learners will need from the curriculum, both now and in the future.

# **Activity**

Participants were placed into five groups and presented with <u>stimulus materials</u> detailing the following information:

- 1. Labour market information
- 2. Future oriented science education manifesto
- 3. Global megatrends
- 4. PISA draft science framework
- 5. Skills for the future.

Each member of the group read one of the materials above, then summarised the key messages to the rest of the group. Having considered all of the learner needs arising from this discussion, participants were then asked to rank these in terms of importance:

- Critical (maximum 4 things)
- Very important (maximum 4 things)
- Important.

## **Summary of output**

Common to all five groups was identifying that the development of skills is critical for learners. Below shows a collation of the skills listed as 'critical' and 'very important' by each group:

#### Critical

- Critical thinking
- Adaptability
- Problem solving
- Creative thinking
- Literacy
- Numeracy
- o Interpersonal skills

#### Very important

- o Handling information/disinformation
- Managing change
- Communication
- o Teamwork
- Innovation
- Scientific literacy
- Practical skills
- o Independence
- Adaptability

As well as skills, other aspects were identified as critical. Three of the five groups identified a **core knowledge base** as being critical for learners. One group suggested it was important that learners were able to make informed choices, both locally and globally, around things like their health and the environment, which was identified by another group as being important.

Two groups specifically mentioned **science identity** as being critical for learners. The **importance of linking science learning to their futures** and **using labour market information** were also identified by three groups as being either critical or very important.

Two groups specifically mentioned the **need to change assessment methods**, to include more of a range of methods, and provide more opportunities for gaining qualifications and recognising wider achievement as being important.

# Session 2 – Reviewing collaboration day output

#### **Purpose**

To review initial concept headers and big ideas suggested for BGE science and consider whether these would be relevant to the needs of senior phase learners (as outlined in session 1).

#### Part 1 – Concept headers

## **Activity**

Participants worked in groups and reviewed the concept headers suggested by participants from Collaboration Group Day 2. They were asked to:

- Group any common ones
- Select the concept headers they felt would be relevant to the needs of senior phase learners
- Identify any gaps.

# Summary of output

Please note, one group did not make a return.

The following **concepts** were identified by the four groups who made the return as being relevant to the senior phase. Language varied slightly due to the previous task of grouping similar headings. The words below best summarise the suggestions made:

- Sustainability
- Materials
- Energy
- Interdependence.

Three of the four groups identified:

- Chemical changes
- The Universe/beyond planet Earth
- Waves
- Forces
- Environment.

Other concepts identified by at least one group include: life science, electricity, science identity, being scientific (or being a scientist), Planet Earth, science in society, applied science, investigative skills, body/health/disease, living and growing, matter and interactions.

Two groups suggested 'health' was missing as a concept header from the Collaboration Group output. Other suggested additions included: interactions, disease, sustainable chemistry, physiological science, earth science, chemistry, electronics, processes, and computing – and links to science.

#### Part 2 - Big ideas

# **Activity**

Groups were then presented with a document that showed the big ideas suggested for the BGE by the Collaboration Group. Groups were asked to examine these and explore which of these big ideas aligned best with the concept headers identified (in part 1). They were also asked to consider if any of the big ideas would be ruled out for the senior phase. Groups used their concept headers along with this thinking to suggest some big ideas appropriate for a senior phase curriculum.

#### **Summary of output**

Listed below are the five big ideas that began to emerge from this activity. Each captures a cluster of concepts that groups repeatedly prioritised. Please note they will not necessarily reflect exact words used.

Please note, one group did not make a return on big ideas.

- 1. Sustainability and environment
- 2. Our world and beyond
- 3. Energy, forces, waves, and electricity
- 4. Materials, matter, and chemical processes
- 5. Science identity and practical skills

The following shows which groups mentioned this theme and the words they used:

#### 1. Sustainability and environment

This theme reflects a pervasive commitment to planet health, climate action, and the interdependence of natural systems.

- Group 1: Science of sustainability
- Group 2: Environment / sustainability / climate change
- Group 3: Sustainability and climate change; Environment interdependence, ecosystems
- Group 5: Sustainability and climate; Planet Earth and interdependence

#### 2. Our world and beyond

Exploring the cosmos fuels curiosity about our place in the universe and underpins topics from cosmology to astrophysics.

- Group 1: The Universe
- Group 2: Universe, beyond Earth
- Group 3: Space / Universe
- Group 5: Our world and beyond (physical)

#### 3. Energy, forces, waves, and electricity

Fundamental physical principles reappear as students investigate forces, energy transfer, wave phenomena, and electrical systems.

Group 1: Electricity and waves

Group 2: Energy, forces, waves

Group 3: Waves; Electronics, energy, electricity

Group 5: Energy and forces

#### 4. Materials, matter, and chemical processes

Understanding the building blocks of the physical world—from atomic interactions to material properties and chemical change—anchors both theory and application.

Group 2: Materials, matter

Group 3: Chemical changes, equilibrium; Materials science

Group 5: Chemical changes; Material science; Matter and interactions

#### 5. Science identity and practical skills

Across all lists, there was a focus on developing scientific mindsets, careers awareness, investigative techniques, and real-world application.

Group 1: Science identity; Being scientific.

Group 2: Being a scientist / careers awareness.

Group 3: Science in society; Applied science (practical).

Group 5: Investigative skills.

Beyond these core five big ideas, living systems and health were also commonly mentioned.

Please note: we recognise that the big ideas listed above do not include a focus on biological sciences. This was perhaps due to the fact that a number of biology teachers who had been invited were unable to attend on the day. We've recognised this as a gap and will seek to address these at future sessions of the focus group. Members of the Sciences CIC Core Group were also made aware of this at their two day workshop on 28 and 29 August 2025 when they were considering the findings from the Senior Phase Focus Group.

# Part 3 – Linking proposed knowledge and big ideas to the current senior phase pathways Activity

Groups were then presented with a mapping document, showing possible alignment between the big ideas suggested by the Collaboration Group for the BGE, and the current examined senior phase pathways comprising National Qualifications (National 4, National 5, Higher and Advanced Higher – Biology, Chemistry and Physics). Other science qualifications such as Skills for Work, National Progression Awards (NPA) and other non-examined courses were not included here to keep this activity manageable.

All groups were able to see where the links occurred and also make suggestions as to where links could be made, either with current content, or with suggestions for changes to content. Due to the variation of returns, it is not possible to draw out common themes from the group returns. Instead, it is advised to look at the actual group outputs on the <a href="event Padlet">event Padlet</a>. These discussions will be revisited in more detail at a later date in partnership with the SQA.

# Session 3 – Future-orientated senior phase curriculum

#### **Purpose**

To consider the characteristics, principles and possible pathways of a future-orientated senior phase curriculum.

#### **Activity 1 – Core principles**

Participants were asked to consider core principles for a future oriented sciences curriculum. (Bullet point of top five principles).

# **Summary of output**

\*This output was collated across the entire focus group and not returned by smaller groups as shown in previous outputs.

In considering a future-orientated curriculum, the opinion of participants was that there were a number of strengths in the senior phase curriculum that provided a secure platform for revisions. Their views were that clear pathways exist through National 5 to Advanced Higher for certain students, providing options for specialisation and progression. They also felt that summative assessment can remain useful, and provide a consistency to progression through levels, with clear evidence of achievement at each SCQF level. Standardised assessment is also useful for the generation of data. Qualification pathways outwith the National Qualifications (such as Skills for Work and NPA qualifications) were also felt to support learner needs and promote skills for employment. Overall, these points reflect elements of structure, recognition, and variety that work well within the current framework.

When asked to consider the core principles for evolving the senior phase, four of the five groups suggested clearly aligned progression would be important (between BGE and senior phase, and between levels potentially being delivered in the same class).

Three groups discussed assessment – specifically ensuring that this is accessible, with a greater range of assessment methods and a consistent approach to this across Scotland.

Three groups also discussed the importance of skills development – specifically mentioning practical skills, problem solving, critical thinking and scientific literacy. The importance of a common language for skills across all science subjects was highlighted.

Flexibility was suggested to be important by two groups – allowing learners personalisation and choice, and the ability to move between pathways when necessary.

Whilst considering a future-orientated senior phase curriculum for sciences, a number of challenges to the senior phase curriculum were identified. The view of participants is that schools are finding it difficult to meet learners' needs due to staffing limitations, which hinder the offering of diverse pathways in the timetable. This raises concerns over equity of offerings. Student uptake of some science qualifications remains low as many still prefer examined discrete science subjects. Participants felt these factors limited the provision of appropriate pathways for all learners, which deterred many learners from continuing with science in the senior phase. The option for learners to drop science early in their education was also felt by participants to be an issue.

Participants also felt that the content of some qualifications needed to be updated, made relevant to real-world contexts and better mapped to career opportunities. Some felt that the involvement of higher

education and employers would add value in this regard. Some felt that courses encouraged learners to memorise, rather than focusing on the development of important skills.

Participants felt that they needed to teach to exam regulations and thought the length and timing of exams was an issue. While practical and investigative approaches with sciences are important, participants felt that alternative ways of assessing practical skills are required. Parity between graded and ungraded qualifications and discrete science and Skills for Work/NPAs courses was also felt to be an issue. So too was inappropriate placement of learners due to accountability cultures within schools. Overall, participants expressed the view that there was a need for more varied assessment that suits learner needs.

In addition, the view of participants was that there is a disconnect in progression pathways. This included misalignment between the BGE and senior phase, a lack of clarity about fourth level, and issues caused by progressing by age, not stage. Multiple participants also felt that National 4 did not always align well with National 5, making it difficult to teach multiple levels within the same class, or to dual-present pupils. The importance of alignment with maths was also raised, with participants suggesting that there are particular issues with pupils being coursed into Application of Mathematics and subsequently finding it difficult to access the senior phase sciences curriculum.

Issues with the 3/3 curriculum design model were also raised. Groups felt this resulted in rushed courses and reduced opportunities for practical work.

#### **Activity 2 – Pathways**

Participants were shown some examples of various new qualifications: <u>Daydream Believers SCQF Level 5</u> <u>and 6 Creative Thinking qualifications</u>, <u>FIDA SCQF Level 6 International Sustainability Diploma</u> and <u>Powering Futures SCQF level 6</u>. They were then provided with <u>an overview of science-related qualifications</u> and asked to reflect on several questions:

- What current pathways best serve the future needs of learners?
- Are there existing qualifications we can better utilise?
- Where are the gaps? What other qualification pathways are needed?

#### **Summary of output**

Most of the courses identified by participants in this section were NPAs such as Scientific Technologies, and Skills for Work Courses such as Such as Laboratory Science and Energy. The Young STEM Leader award was also mentioned.

Sciences National Qualifications (N5/H/AH), as well as Engineering Science and Practical Electronics were also mentioned.

Groups felt there was scope for better alignment between levels in current qualifications. They also felt there was a need for progression to higher SCQF levels (ie SCQF level 6 at least) for some qualifications, such as Skills for Work courses (Energy, Lab Science and Health Sector), which are available to SCQF level 5.

Participants suggested that courses such as Horticulture could be better utilised. Constraints due to logistics, funding and resources were recognised. One group also suggested more could be made of the NPA in Climate Change and Sustainability qualification in the future.

It was felt by some groups that modular approaches should be considered as part of any future senior phase offer so learners could select modules at the same level to suit their needs. Some groups expressed the view that there was a need for new qualifications whilst others were concerned about to much clutter

and too many qualifications being available. Groups felt that work and support was needed for learners and parents so they would be aware of the value of each qualification pathway.

Lastly, the view of participants was there would need to be a national agreement on the number of hours assigned to science qualifications to ensure sufficient time was available to teach the course and to ensure equity of resourcing across schools.

#### Session 4 – Fourth level

#### **Purpose**

To reflect on the purpose of CfE fourth level, how it is currently utilised and how could it be better utilised.

#### **Activity**

Participants were asked to discuss the following questions:

- Is the purpose of fourth level clear?
- How is fourth level currently used in your department?
- If you could change our approach to fourth level (how it's defined and used) what would be your preferred option/model? What are your reasons for this?

# **Summary of output**

This output was collated across the entire focus group and not returned by smaller groups as shown in previous outputs.

#### Is the purpose clear?

Participants gave a variety of responses to this question. Some felt the purpose is clear in theory, in that it is intended to bridge the gap between BGE and senior phase and can be useful to challenge more able learners in S2. However, participants suggested that this does not always work in practice. Others felt the purpose is not clear due to variation in curricular models nationally.

# How is it currently used?

Multiple participants reported that it was not currently used, citing reasons such as misalignment to senior phase and time constraints leading to delivery of National 4 instead of fourth level in a 2/2/2 model. Others shared that it has been used to extend and challenge pupils in the BGE where possible and to prepare learners for embarking on national qualifications.

#### Preferred model and reasons

One model proposed using S3 and fourth level as an opportunity to embed skills and wider achievement. This would allow them to apply their BGE knowledge and identify strengths prior to embarking on the senior phase. Learners would have the opportunity to learn about careers and achieve accreditation for wider achievement opportunities such as Duke of Edinburgh and Young STEM Leader awards. The group suggested this approach may assist with closing the gap as learners who achieve third level in S2 have the chance to embed and apply knowledge in new contexts, while allowing those learners who have not achieved third level the opportunity to make further progress at this level.

Multiple responses highlighted the need for better alignment between qualification levels (for example, SCQF levels 4 and 5), which would enable multiple levels to be taught together. Standard Grade Credit and

General was given as a successful example of this. Fourth level could be adapted to allow for more flexibility, or as an introduction to each discrete science, with opportunity for learners to achieve unit accreditation and have a better idea of strengths to make informed decision during option choices.

A 2/2/2 curriculum design model was suggested by participants as addressing the current issue of time constraints and a wide offering of qualifications in S4. A two-year S3/4 course was felt to allow for sufficient time for breadth, depth and practical work. Within the current model, participants felt that time does not allow for the delivery of fourth level in its entirety due to the number of third level sciences experiences and outcomes. In addition, as most learners do not select all three sciences during options, this prevents them from achieving fourth level in science. Participants suggested that many school models prevent the selection of all three sciences for learners, and models vary across schools and local authorities.

# Session 5 – Plenary

## **Purpose**

To gather feedback on the session to inform future planning.

# **Activity**

Participants were asked to answer the questions below.

- 1. What worked well in the session today?
- 2. What do we still need to discuss?
- 3. What is your big takeaway from today? (Responses not included in this report as this was to aid individual reflection)

# **Summary of output**

The output from this session was collated across the entire focus group and not returned by smaller groups as shown in previous outputs.

#### What worked well today?

Overall, participants enjoyed the opportunity to hear from a range of perspectives and to discuss issues in smaller groups. They also appreciated having a variety of well-structured tasks and stimuli resources to keep discussions on track, challenge thinking and maintain engagement throughout the day. Participants valued the opportunity to look at the Collaboration Group output, in particular the content statements and big ideas, and the use of evidence to shape discussions and build confidence in the process.

#### What do we still need to discuss?

Participants recognised that we have not yet reached the point of discussing specific knowledge content and have yet to discuss what skills we want young people to develop through the sciences curriculum. Issues around assessment models still need to be considered. Participants felt that further work was required to ensure that learners, parents, employers recognise the respective strengths and value of different qualification pathways. In addition, they suggested that future sessions focus on how the senior phase can effectively prepare learners for future study and the world of work. Participants also suggested it would be helpful to discuss in future sessions whether the senior phase model should continue to be based on discrete sciences and how best to ensure effective progression from the BGE to senior phase.

#### Next steps

The Sciences CIC Core Group will meet for a two-day workshop on 28 and 29 August. They will review the output from the Collaboration event on 12 June 2025 in tandem with this report and some feedback from children and young people. Specifically, they will focus on the following to enable them to further develop thinking around the big ideas, concept headers and knowledge for the 3-18 sciences curriculum:

The national timeline is for draft big ideas for science to be available in September/October 2025, and a draft 3-18 sciences curriculum technical framework for consultation by summer 2026. Membership of the senior phase focus group will be rotated to include new members and perspectives. This will involve a mix of online and face to face discussions in the coming months.