

CENTURY for Science

Introduction

The beauty of CENTURY is that it is powered by students. If your students are using it, they are learning. If your students are learning, they are producing insightful data for you and your team to analyse and act upon. The only thing you need to do is to ensure that the relevant science courses have been assigned to your classes.

The following document has been created to assist you when you are ready to take more control of the platform and to guide you in how to embed CENTURY into your department.

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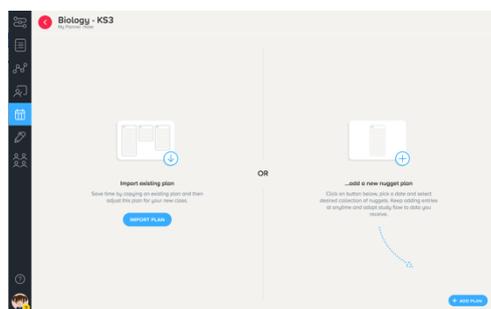
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Schemes of work

Setting Nuggets (using the Planner)

Another way to ensure students are recommended nuggets on CENTURY which are relevant to their classwork is by setting individual nuggets. All of CENTURY's learning material is linked to pre-requisites and nuggets to extend their learning. When setting nuggets to align to a scheme of work we suggest setting no more than three nuggets at a time. This is because they take priority in the path. By setting no more than three nuggets, students can still access nuggets set by the recommendation engine.

For example, if students are set the nugget *Balancing Chemical Equations II [CH1.20]*, any mistakes will be recognised by the system. Students will then be recommended nuggets based on their gaps in knowledge, such as *Formulae for Compounds with Brackets [CH1.05]* or *Lowest Common Multiple - Listing Technique [MF5.07]* if the student is also using the maths course. Additionally, if a student completes a nugget and shows they have a good understanding, they will be recommended more complex nuggets within that topic to provide stretch and challenge.



Department-wide Consistency (using the Planner)

By appointing a CENTURY champion in your department, you can ensure consistency throughout each year group. Using diagnostics and/or nuggets to map out the curriculum, these plans can then be imported by other teachers to

their classes. This saves teacher time and ensures all students will be recommended CENTURY content related to your scheme of work.

Making the most of data

Class Admin to see Year Group Data / Set classes

As well as seeing the results of an individual class, HODs may view the data of a whole year group. Using Class Admin, it is possible to assign a course to an entire year group and then use the Teacher Dashboard to see results across the year. Once students are in the appropriate year/course class, HODs may decide to use the Nugget tab within the Teacher Dashboard to see a question-level analysis of each diagnostic or nugget. This information will inform any adaptations to schemes of work according to the prior knowledge of each year group.

Using Diagnostics to evidence progress

Diagnostics can be used at the beginning of a topic within a scheme of work to highlight to HODs/teachers any gaps in knowledge within the group.

This data can be exported to an Excel spreadsheet and used as a 'pre-test'.

CENTURY will only set each diagnostic once to find gaps in knowledge, however the teacher has the ability to reset the diagnostic using the Planner.

Setting this diagnostic at the end of the topic acts as a 'post-test' and can again be exported from the Markbook to evidence progress.

Note: When exporting data from the 'post-test' it is important to use the time stamp on the markbook to ensure the data collected is from the students' second attempt.

Interventions

Intervention Groups

Using Class Admin, intervention teachers or learning support assistants can create classes for intervention groups to analyse data and evidence progress using the Markbook.

Note: It is important to create intervention classes based on the course students are assigned. Also make sure to assign the relevant course to the class in order to view the data.

Flipped Learning

Setting nuggets for flipped learning allows teachers to focus on the most important areas of improvement for their class. Being able to gain an understanding of students' levels of knowledge by setting CENTURY nuggets before teaching a topic enables teachers to plan tailored lessons without wasting valuable lesson time checking prior knowledge.

Assessment for Learning

Using nuggets for AfL tasks in class provides students with immediate feedback and teachers with instant data on their progress. These data insights enable targeted interventions, whilst the data dashboard highlights the precise areas students need help with.

CENTURY's recommendation engine will set completely personalised homework for each student and track their engagement and performance through the Teacher Dashboard.

CENTURY Science Courses

When you subscribe to CENTURY, you have access to all our courses, which are listed below. Any new science courses published in the future will also be automatically added to your accounts.

Primary Courses

Course	Notes
Primary Science KS2+	This summary KS2 Science course is mapped to the English National Curriculum. This could be renamed and used in Year 7 to identify gaps in knowledge or could be used within assignments to assign work at a lower level to support understanding. It would also work well as part of a catch-up or transition program.

Secondary Courses

Course	Exam Board	Notes
Biology - KS3	All	These courses are mapped to the English National Curriculum. They cover a wide range of subjects, as every school approaches KS3 differently and is preparing for different exam specifications at GCSE. These courses can be assigned unmodified or tailored to suit your schemes of work.
Chemistry - KS3	All	
Physics - KS3	All	
Biology - GCSE - Higher	All	These courses are mapped to the English National Curriculum and (unmodified) are suitable for higher tier GCSE students.
Physics - GCSE - Higher	All	
Chemistry - GCSE - Higher	All	
Practicals - Science GCSE	All	This course contains the required practicals for AQA, Edexcel and OCR. Students can practise their skills by exploring other investigations not specifically required for their exam. It can be adapted for your students or left unmodified. Bespoke courses that match your schemes of work can be created from the GCSE and KS3 courses to meet the needs of your particular students at all stages of their school careers.

<p>Combined Science GCSE: AQA Trilogy (F) - Biology</p>	<p>These courses are mapped to the AQA GCSE Combined Science: Trilogy Foundation Tier specification. Currently, Topic 1 is available with the other topics coming on a rolling basis as they are ready.</p> <p>The new courses break the specification down into one topic or skill per nugget, which makes identifying gaps and targeting interventions even more precise than with previous courses. The required practicals are also included where they come in the specification.</p>
<p>Combined Science GCSE: AQA Trilogy (F) - Chemistry</p>	<p>For each topic, there are two sets of topic review diagnostics and there will be two sets of paper review diagnostics that can be used as assessment points or to help you plan revision sessions as the exams draw near.</p> <p>A map of the nugget names against the specification points is available and can be used to plan how CENTURY will fit into your teaching and schemes of work.</p> <p>All the content in the foundation courses will be included in the higher tier courses when they are available, so students' data will be maintained if you decide to switch your students to these courses at a later date. Similarly, the combined sciences nuggets will be included in future new separate science courses.</p>
<p>Combined Science GCSE: AQA Trilogy (F) - Physics</p>	<p>There is also a map of the Combined Science nuggets that will appear unmodified in our Edexcel and OCR courses. If you follow these specifications, you can therefore set the available nuggets for homework, using the planner, or create your own specific course.</p> <p>These courses would be best to be set for students starting their GCSE courses in Year 9/10. Throughout the year, topics will sequentially be added to the assigned course as the students progress through the content.</p>

Tips for maximising use of CENTURY

Fast track your students

Setting individual nuggets through the Planner that are aligned to your scheme of work enables CENTURY to make recommendations linked to the precise nuggets you choose. CENTURY will react to fill any gaps in prerequisite knowledge and stretch learners that already have a good understanding.

Departments using this approach should aim to set around 3 nuggets per week as a maximum.

Data Insights for entire cohorts *

Using Class Admin to create a course class enables data insights across the year group and allows work to be set en masse for an entire cohort of learners. Using the tools in the Teacher Dashboard can provide detailed insights into engagement, attainment and the specific strengths and weaknesses of an entire cohort.

Evidencing progress †

Student data can be time stamped and exported to Excel from the Teacher Dashboard Markbook. Setting diagnostics as an initial assessment and then as progress checks throughout the year can help to highlight the progress students have made.

Intervention Groups ‡

Using class admin to create intervention groups equips teachers with all the tools to focus on key cohorts of learners of any size.

Using CENTURY for interventions

- Setting nuggets for flipped learning allows teachers to focus on the most important areas that they need to teach their class.
- Using nuggets for AfL tasks in class provides students with immediate feedback and teachers with instant data.
- CENTURY's recommendation engine will set completely personalised homework for each student and track their engagement and performance through the Teacher Dashboard.

The data insights generated through the dashboard enable targeted intervention, highlighting the precise areas students need help with.

** Create classes based on the course students are assigned. E.g. foundation tier learners in a foundation tier class, higher tier learners in a higher tier class.*

† The Markbook shows the students' most recent attempts. See attempts at any point in time by time stamping the markbook.

‡ Create intervention groups based on the course students are assigned.