



Teaching and Learning Newsletter

LDEUTC

23-11-2020

BIOLOGY KS5



"This week Year 13 Biology learners carried out field work, opposite Cyprus DLR. Learners had used quadrats to sample the grassland habitat. They identified dandelions and clovers and other plant species, in the local area. This was one of their required practical at A-level- Investigating the progressive change in the distribution and abundance of several plant species in a habitat"

Rayeeda – Science Teacher

APPLY

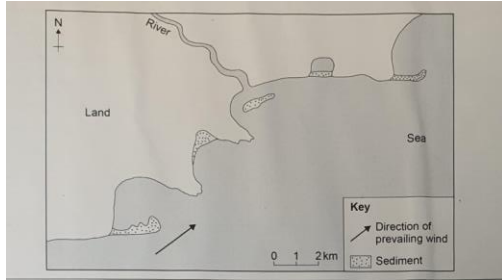




"This was an incredibly interesting event as I had changed my view about architecture. I had merely thought architecture was all about designs and the basic construction principles, but now I know that there are many other factors to architecture such as, the surveying stages of architecture and modelling. My favourite part of the VWEX was the modelling stage. I loved the hands on aspect of architecture as we could be creative with our designs and we could formulate different structures as if it was a puzzle. I also enjoyed the drawing stage. As I am akin to drawing, I thought of this stage as really simple and very interesting. I commend the instructors who have changed my view of architecture as they have shown me the true life of an architect. I CANNOT WAIT TO STUDY IT AT UNIVERSITY!" – Rudolf Year 12 learner



"Throughout the week, we had a range of talks ranging from materiality to site planning in order to give us an insight to the different areas within the architectural work field. My favourite activity was when we created a model for a space. This is the model I created during the work experience. We also did site planning as we were tasked with planning an outdoor classroom. We had to take into consideration how the room would be constructed and how it would effect the surrounding environment. This was the easiest task for me to complete as I had previous knowledge on this matter through my built environment knowledge from school. The main thing I gathered from the work experience was the different sectors that are within the architecture field and it isn't limited to just designing buildings and there are in fact other jobs that are just as important regarding a building being constructed." Adama Year 13 learner



3 - 7 Using Figure 12 and your own knowledge, explain how different landforms may be created by the transport and deposition of sediment along the coast. [6 marks]

Corrosion occurs when the water hits and small fragments of rock chip away like tools. One type of erosion which occurs is abrasion and attrition. The beach is at a angle the transportation is diffusion. Due to longshore drift the pebbles are moved in a zig zag pattern. Wash back wash and the prevailing winds carry the sediment to the beach from the land have been deposited and trapped in the bay forming a beach. ✓

steeply sloping beaches are formed by strong destructive waves that back wash more material away from the beach than they wash up the beach.

5/6
Excellent

Where as gently sloping beaches are formed by constructive waves that wash more material up the beach than they backwash away. ✓

FORMATIVE ASSESSMENT	
DATE: 21/10/20	NAME: JASHANTI
STRENGTH: identifying what sediment	Refer to the figure, use geographical words.
IMPROVEMENT: identify what sediment	Use more geographical words.
TARGET: write and explain the process of erosion	include abrasion
LITERACY TARGET: use the extended writing strategy	expand on the geographical words

Celebrate Mistakes – We learn from our mistakes. Encourage learners to correct errors and highlight common mistakes in a supportive way.

DIRT session should include reflection, monitoring, evaluation, planning and regulation.

Reflection, monitoring & evaluation may refer to: levels of effort, degrees of preparedness, successful and unsuccessful strategies used in approaching the assessment, various measures of the works' quality or the learners' progress in certain areas.

Regulation and planning generally refers to: establishing targets for improvement, clarifying what to do differently next time, and outlining steps that need to be taken in order to actually meet established targets.

FORMATIVE ASSESSMENT	
DATE: 25th September 2020	Name: William GUY (16)
STRENGTH: identifying what sediment	You have used some adjectives in your description.
IMPROVEMENT: identify what sediment	zoom in on something specific and describe details using a range of devices
TARGET: write and explain the process of erosion	Re-write the description of the forest and include similes, more adjectives, and
LITERACY TARGET: use the extended writing strategy	Keep to one tense - use past tense.

Due to his good performance and seriousness in his job, everyone in the village was good to him. He used to go to hunting in the dark night so that he can get big animals like elephant, Antelope, Bear, Squirrel and others. When he got the meat, he sell some of them and eat some with his family. One very night, he decided to go to the forest for meat to sell and eat some. He took his gun and his cutlery and prepared to go through the forest. By the way, the forest was too dangerous but due to his presence in the forest with his father many times made it look like a home for him. So he then made his way to the deep forest. That night he found no meat so he decided to continue his journey to a long mile distance to a different forest to get a meat for his family and friends. So after thinking of his plan of making it through the new forest, he made his journey or began his journey. He was walking fast like a cheetah to get there early so that he can make it to the next village and then pass through to the next forest to acquire his needs. On the way, he had a small like strange smell that made him a little bit afraid or scared, but due to the darkness

FORMATIVE ASSESSMENT RESPONSE	
DATE: 13/10/2020	Name: William GUY (16)
STRENGTH: identifying what sediment	There lived a man called Chowdury. He lived in a very small village near the Goldchester in the United Kingdom in Europe. He was married to Mrs. Narmen, his wife was a good person since childhood. She was beautiful as like a flower.
IMPROVEMENT: identify what sediment	Chowdury's occupation was hunting and due to his good performance and seriousness in the hunting job, everyone in the village like him and his wife. He used to go hunting in the dark night so that he can get big animals like the animal. When he got to the forest, he also felt like a superhero in the forest. Even though when he took them to the forest. The forest was too much dangerous for a human being to be there at night, but due to his courage and presence in the forest with his father before he died, he wasn't afraid to be there in the forest. His aim was to be a greatest hunter in the world because his father was also a great hunter, so Chowdury inherited from his father.
TARGET: write and explain the process of erosion	One very night, Chowdury made his way to the deep forest to get big meat for his family and to the market to sell them. It was 10 o'clock in the night. The man was like a bull. He entered the forest with his weapons, a double barrel gun, his musket and his sack, which he used to carry the meat that he killed.

Make 'what does excellence looks like?' A routine

SHOW-ME BOARDS

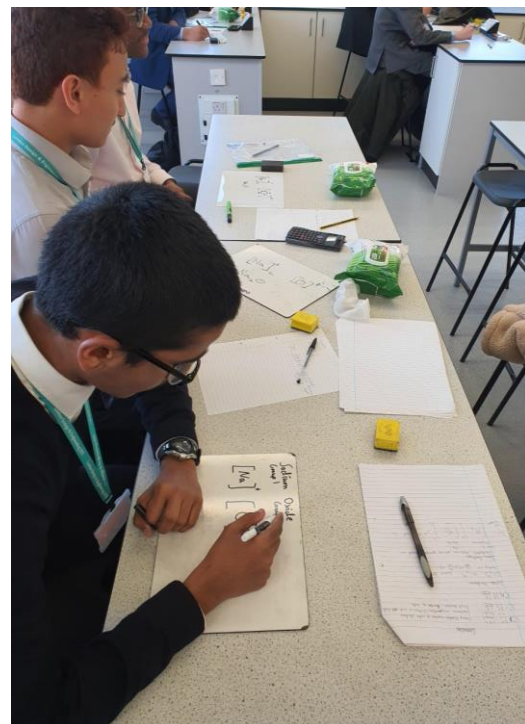


Plan questions in advance

Standardise show me format i.e. '3-2-1- show me'

Scan boards from front of the class

Approximate class understanding



Mini Whiteboards

CHECK FOR UNDERSTANDING

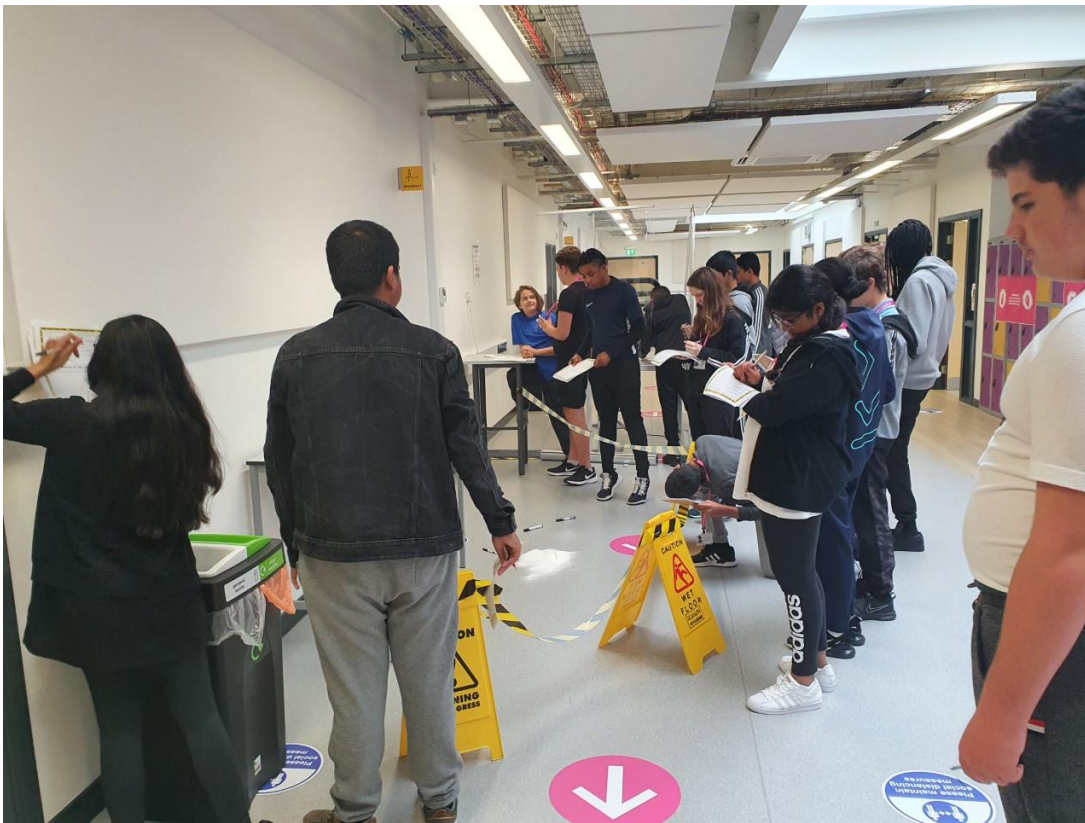


DECIDE

All KS4 learners were given a learning pack at the start of the academic year. This pack included a mini whiteboard, which is routinely used as a part of our assessment for learning strategy. A mini whiteboard is a brilliant tool to check whole class understanding relatively quickly and clearing any misconceptions accordingly.

Science hold KS4 intervention every Friday from 12:40pm, here we can see the mini whiteboards in action.





"As part of our topic focusing on the job role of a forensic scientist, our Year 9 cohort was given the opportunity to act as detectives by taking part in a criminal science investigation. They were taught several investigative techniques in previous lessons. These included practices such as DNA fingerprinting, chromatography, defining salts, filtration and more.

During the day, a crime scene was set up in the corridor of the science floor. The crime scene included an outline of a missing iPad, some mysterious white powder, a half bitten chocolate, an invitation to a leaving ceremony and a weird footprint. Using suspect profiles and other relevant materials, they were tasked to utilise their scientific understanding in catching the criminal responsible for stealing their Head of Years' iPad.

All the students participated and were engaged with solving the crime scene showing great teamwork, group effort and initiative when capturing the culprit. Overall it was a great success and we plan to include many more opportunities for students to actively learn through practical investigations" – Omar, Science Teacher



BUILT ENVIRONMENT KS4

MATERIALS that are processed

- > Timber
- > Concrete
- > Masonry
- > Metals
- > Glass

Read the text on this page and underline the key words for each material

MATERIALS USED IN BUILDINGS: Timber

Timber is strong, durable, light in weight and easy to work with. It also offers natural beauty.



- Durable (strong)
- Susceptible (not strong against) to insect and fungal attack.
- Good thermal properties
- Can resist heavy structural loads.
- Can bend

"Softwood" is the wood from any of various predominantly evergreen, coniferous trees, such as pine, fir, hemlock and spruce.

*used for structural framing, flooring, some fixtures.

Hardwood is the wood from a broad-leaved flowering tree, such as cherry, maple or oak.

*used for flooring, paneling, furniture and interior trim.

The properties of TIMBER can change by:

Moisture (water in the air)

Wood can become damp, lose its strength & swell (become larger)

Glue-Laminated (covered) Timber

Laminating (covering) timber with adhesive (strong glue) under controlled conditions.

AC 2.2 Materials: Processed: Timber

Timber is used quite extensively in construction projects. It is used in roofing, timber framed construction, windows and doors, kitchen units and worktops. Timber is also used in the construction process itself such as scaffolding boards, fencing surrounding a site and spot boards for mixing small amount of cement.

Properties of timber:

- exceptionally strong relative to its weight
- a good heat and electrical insulator
- it is a renewable and biodegradable resource
- timber is a flexible material
- it is an easy material to work with
- a very attractive material



BUILD YOUR BOOKLET

There are many benefits to curating your own booklets for topics/units of delivery. Over the summer as I prepared to teach a new exam board, with units I was unfamiliar with. I started developing a Unit booklet. Whilst this may require further developing as I become familiar with the course, and aware of common misconceptions from learners, I found that my planning time was heavily reduced and some of the independent learners were able to speed ahead and challenge themselves whilst I could aid those who required more support.

Creating a booklet is a time consuming process, however the advantages save time in the long run. [This blogpost here breaks down the advantages even further.](#)



Support



Support

Support

Support

Support

UNIT 3 – Topic 3.1

FORMS OF ENERGY

- To be able to describe the forms of energy: gas, electricity, photovoltaic.
- To explain how to design a building so that it can accommodate these 3 forms of energy.



Explain why does a building need energy?

.....

.....

.....

.....

.....

.....

Energy for a building usually comes from 3 main sources:

- Gas
- Electricity
- Photovoltaic (solar panels)

Label the correct energy with the image



Benefits of Booklet building

- Reduces workload
- Ensures you cover the curriculum
- Outsourced a lot of thinking to before the lesson, leaving you with time to bandwidth to respond to the learners
- The format be standardized
- Excellent support for learner practice
- Perfect for cover lessons/remote learning
- Very helpful for learners if they miss a lesson
- Very helpful for learners to use as revision practice

FEEDBACK

Wall Walk

Our wall walks are delivered on a fortnightly basis and are targeted focuses for the next 14 days, hence the name, ‘fortnightly focus’. T&L this week presented two strategies to implement feedback for the summative and formative assessment.

<https://ldeutc.padlet.org/VictoriaWebb/CPL>
<https://ldeutc.padlet.org/VictoriaWebb/WallWalks>

FEEDBACK THAT MOVES FORWARD

- 1 FOCUS FORWARDS
- 2 KEEP IT POSITIVE AND SPECIFIC
- 3 MATCH THE MESSAGE TO THE STUDENT
- 4 AVOID SATNAV SYNDROME
- 5 REDUCE FEEDBACK OVER TIME

- 1 REDRAFT OR RE-DO
- 2 REHEARSE OR REPEAT
- 3 REVISIT AND RESPOND TO MORE QUESTIONS
- 4 RE-LEARN MATERIAL AND RE-TEST
- 5 RESEARCH AND RECORD

FEEDBACK AS ACTIONS

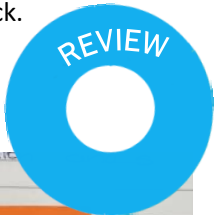
FORMATIVE ASSESSMENT	
S [Strength] • Identifying what went well.	Great work! You understand the properties of group 1 and group 7 elements.
I [Improvement] • Identify areas learner can improve	Recap on oxidation and reduction reaction. In terms of electrons, what is meant by reduction?
T [Target] • Pose a high level question to challenge thinking	Now redo Q6) ii) Focus on the difference between hydrogen and the elements in group 1
Literacy Target • Use the extended writing criteria	N/A

Quality feedback will allow our learners to begin to think independently and make the necessary changes to their work to improve and teach their desired target.

Explaining why something is ‘good’ rather than leaving it at ‘great work’

Asking a learner to recap a topic and asking them a specific question to guide the learner

Feedback as an action, setting a specific task, but clarifying what you want the learner to focus on. Specific, clear feedback.



Example of Feed Forward & Feedback as action

Example of Feed Forward

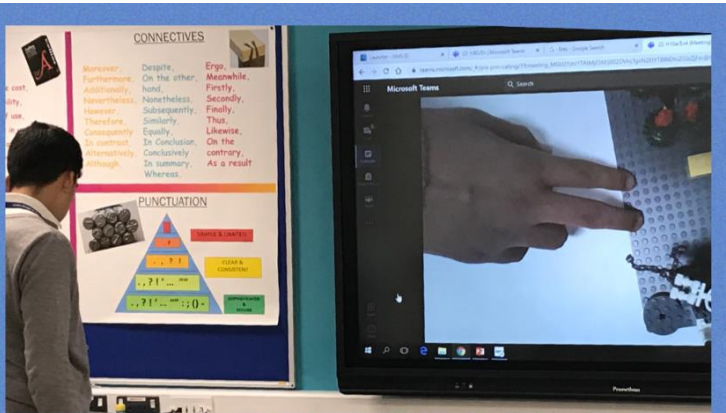
DATE:	Name: Andrew
S [Strength] • Identifying what went well.	Good use of zooming into quotes.
I [Improvement] • Identify areas learner can improve	Try to use language devices to analyse.
T [Target] • Pose a high level question to challenge thinking	Could you have linked to context?
Literacy Target • Use the extended writing criteria	Don't forget to use capital letters on the titles.

Clarifying the specific element which was good.

Specifying what they can improve going forward.

‘How could you linked to context’ brings an element of **process questioning** within the feedback

Our internal T&L CPD focused on **Oracy and vocabulary within the curriculum**. Kate discussed why it is important to ensure our learners are word rich, and how we can encourage this within our classroom. Introducing new vocabulary is a key part of our curriculum, and the Freya Model exemplars shown by Kate allowed teaching staff to have a think about how they can trial this strategy.



Our learners becoming teachers for the days and delivering brilliant sessions to local primary schools.

Shafina @ShafinaVohra · Oct 23

And another week of primary workshops designed and deliberated by our learners @LDEUTC with St.Luke's year 5.



"We had a brilliant time using Lego to create a visual recreation of some of the more abstract ideas from Macbeth period 4 today. Lots of 'broken Chains of Being'! We then used the visualiser so that each pair or individual presented and explained their creations." – **Kate, English Lead Practitioner**

"Year 11 and year 13 are currently completing their Lego education Innovative programme at LDE. This involves delivering primary school workshops in Newham which we launched 2 years ago. Due to its huge success we have schools asking for more sessions and this year as we are unable to offer on site workshops we launched our remote offering"

Just a regular lesson @LDEUTC with amazing @ldeengmark getting learners to explore gears using @LEGO_Education simple and powered Simple & powered machines



"We delivered 6 primary school workshops in October remotely. Our learners designed, developed and delivered workshops on Fridays after school. The feedback has been amazing! And due to this wonderful success the Institute of imagination wanted to partner with us! So we have now collaborated where LDE does day 1 of the lego workshops and the iOi does the digital side of it with them for day 2. This has led to further collaboration with James's team on the digital side boosting our EE side of things and developing learners' skillset. Their confidence, creativity and resilience has been simply heart warming to witness."
Shafina, Psychology Teacher, Lego Lead

APPLY

Sarwar, our Digital and Computing teacher, has created a digital library on SharePoint which shares opportunities, videos and articles on all the fantastic work that is taking place around women in Computing. An industry which was previously male dominant, however this is changing for the better and it's brilliant to see the work being done at a college level to encourage young girls into this brilliant pathway.

For more information please [click here](#)



Women on Sketchfab: Evelyn Soa

sketchfab.com

Evelyn Soa talks about her early inspirations to get into Game Art, how she found her passion, and the

CAREERS AND PATHWAYS

Below are some useful links to help you think about your options within the creative and tech sectors.



19 Cool jobs for the modern woman – SheKnows

www.sheknows.com

Like the realm of the computer programmers, software development has long seemed the domain of men. But if you have a knack for this line of work, there are many ways to use these skills.



Creative Careers | Barbican

www.barbican.org.uk

Creative Careers are sessions aimed at those aspiring to work in the arts, creative industries or as creative entrepreneurs. If you're someone who works or wants to work in a creative industry, join us at our sessions that give you the chance to

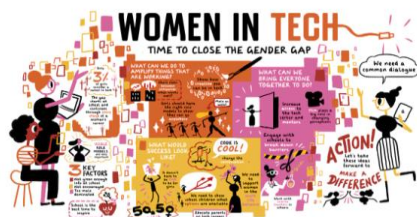


Creative and media | Explore careers

nationalcareers.service.gov.uk

Creative and media. Actor. Actors use speech, movement and expression to bring characters to life in theatre, film, television and radio. Advertising account executive

As we know woman in STEM is an area which is constantly being developed. At LDE UTC we recognise that it is up to educators to engage female students and bring them into class discussions. This will increase girls' interest in the subject matter and better prepare them for college-level courses in computer science.



Women in Technology - PwC UK

www.pwc.co.uk



Meet Annie Easley, the barrier-breaking mathematician who helped us explore the...



Inspiring women in the UK tech industry you should know about - Tech Nation

Strategy 1: Knowledge Organisers

Knowledge provides a driving, underpinning philosophy.

The knowledge content is specified in detail.

Knowledge is taught to be remembered, not merely encountered.

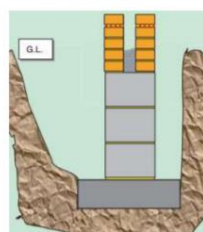
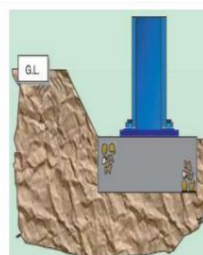
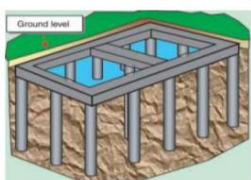
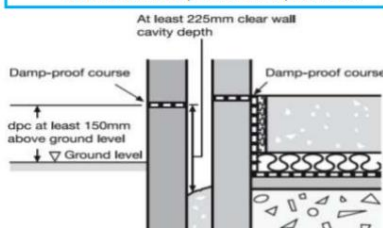
Knowledge is sequenced and mapped deliberately and coherently.

301 – Domestic construction technology

Substructure (below DPC) and Superstructure (above DPC).

These structures also consist of elements which can be classified as either:

- Primary elements - parts of the building providing the basic load bearing capacity to the structure which transfer the loads to the substructure.
- Secondary elements - parts of the building not providing loadbearing capacity to the structure, or elements which perform a completion role.



Pad foundation

Tend to be used for structures that have either a concrete or steel frame.

Pads are placed to support the columns which transfer the load of the building to the subsoil.

Strip foundation

Quite narrow and tends to be used for low rise buildings.

Dug to foundation depth and then filled with concrete – reduced excavation as no brick or block needs to be used in the trench.

Constructed with either brick or block masonry up to the DPC level.

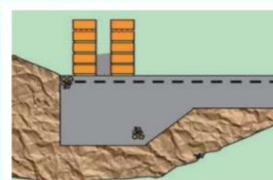
Can be stepped if used on sloping ground in order to cut down the amount of excavation needed.

Raft foundation

Used when there is unstable subsoil.

A large concrete slab, at least the size of the building, is used to give the foundations a large surface area.

This means that the building effectively floats on the unstable soil and is less likely to be affected.



Pile foundation

Tend to be used for high-rise buildings or where the subsoil is unstable but there is hard rock deeper underground.

Holes are bored into the ground and filled with concrete or pre-cast concrete, steel or timber posts are driven into the ground.

Load of the building is transferred deeper into the ground.

Can be longer or shorter depending on the soil conditions and height of the building.

<https://debra-kidd.com/2018/06/11/a-rich-curriculum/>

<https://teacherhead.com/2018/06/06/what-is-a-knowledge-rich-curriculum-principle-and-practice/>

DO...

- + Write knowledge organisers while planning a scheme of work.
- + Organise your information through diagrams and tables.
- + Include the foundational knowledge needed to allow pupils to be successful in a unit.
- + Focus on facts.
- + Include keywords on every page, defining words in the most accessible way possible.
- + Plan activities and pieces of homework which get pupils actively to engage with the knowledge organiser.

DON'T...

- + Write knowledge organisers as you teach a unit, or as a reactionary step after a unit has finished.
- + Include paragraphs of text.
- + Include information just because it is interesting, rather than necessary.
- + Focus on opinion.
- + Assume pupils will be able to access or find specific key terms.
- + Expect pupils to read and retain the knowledge organiser independently.
- + Include blank sections for pupils to fill in: pupils who need knowledge organisers the most are the ones least likely to fill them in.

1 | Define the schema

2 | Sequence the schema

3 | Decide on how the information will be presented

4 | Write and trim the sections

5 | Write the keywords

<https://impact.chartered.college/article/organising-knowledge-purpose-pedagogy-knowledge-organisers/>