

# Assessing workplace based competencies

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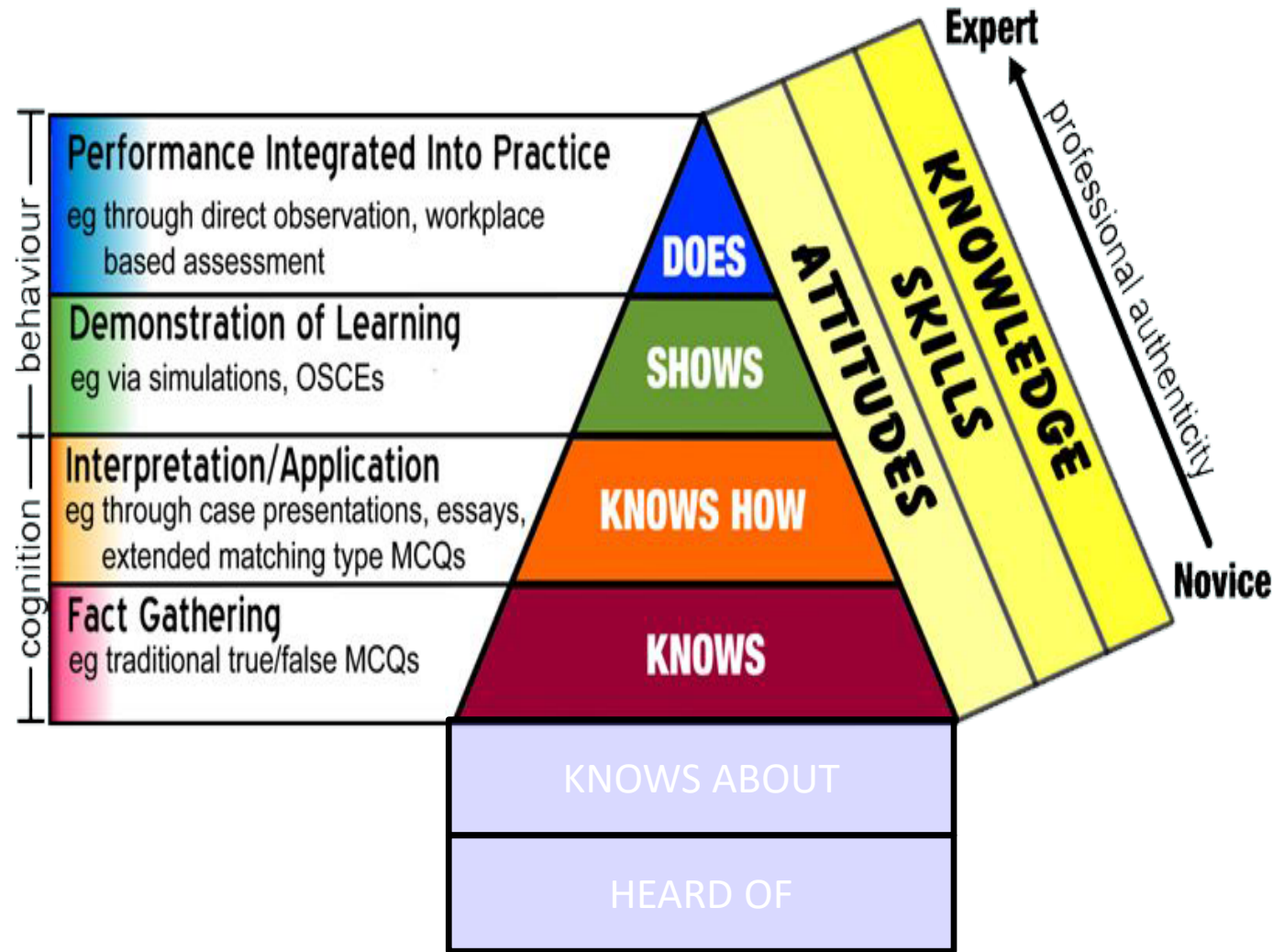


# Aim of the session:

- Learn about the different types of work based assessment methods.
- What is competence and competency?
- How assessment of competency can be applied
- What is suitable evidence; quantity versus quality?

# Why do we assess?

- Assessor needs to see the evidence to say a trainee is **competent**
- Millers Pyramid 1990: A framework for clinical skills assessment
- Competency assessment needs to match the level of knowledge
- Think of it like a driving test – you can do it, but you have to demonstrate that you can do it in order to pass



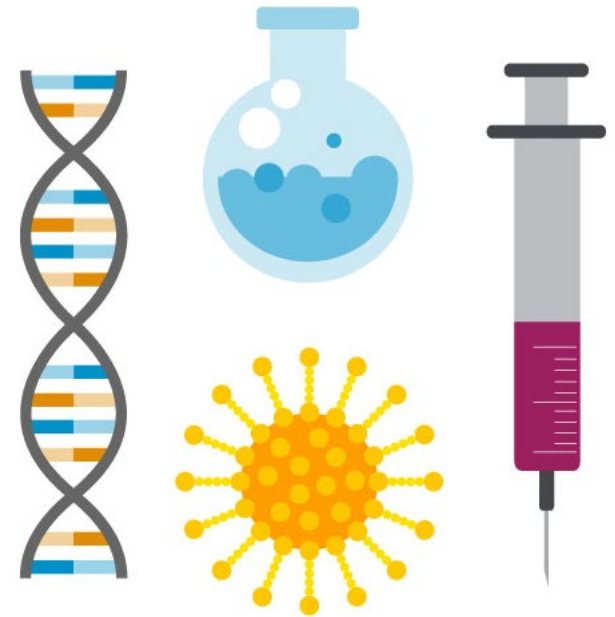
Based on work by Miller, GE. (1990) The Assessment of Clinical Skills/Competence/Performance; *Acad. Med.*, 65 (9), pp. 63-67. Adapted by: Mehay R, Burns R. Miller's pyramid/prism of clinical competence. In: Mehay R, editor. *The essential handbook for GP training and education*. London, UK: Radcliffe Publishing; 2009.

# Where do I find the assessments?

- The Curriculum Library
  - Contains all the information about modules
- The E-Portfolio: OneFile
  - Records the workplace evidence a trainee should accumulate to meet the competencies and assessments

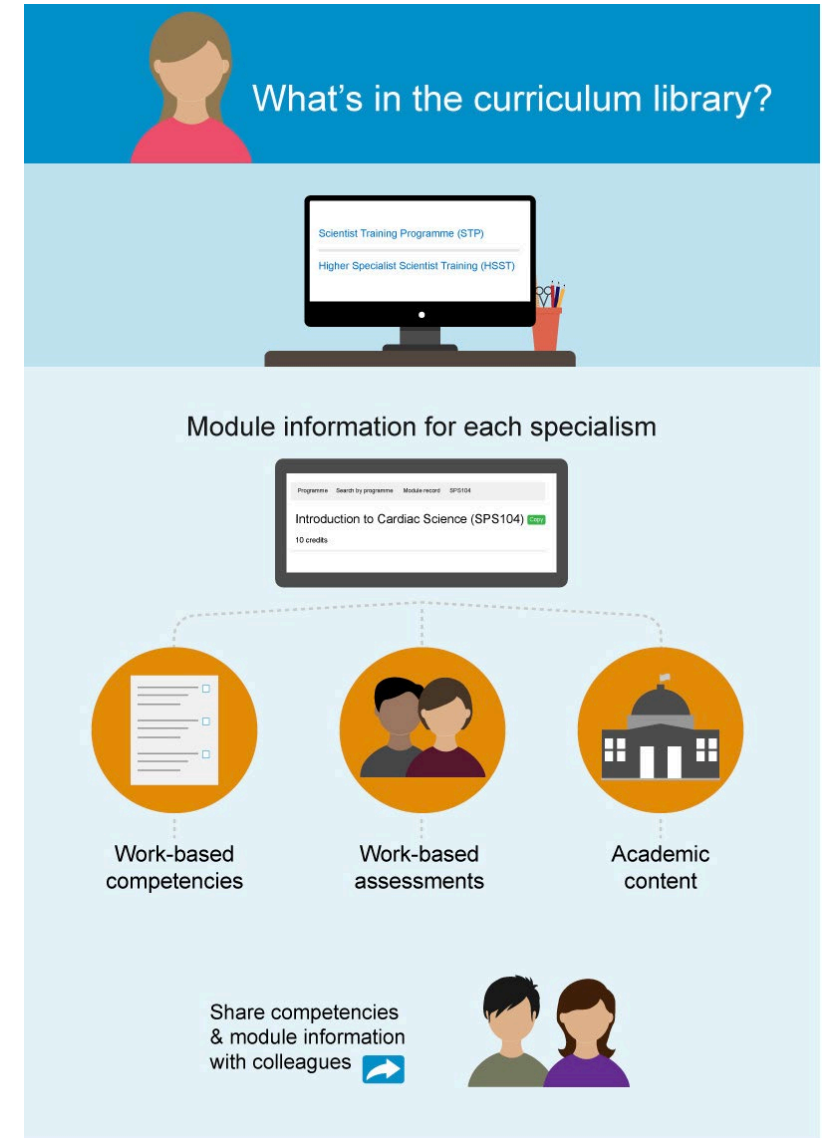
Core, rotation  
and specialist  
modules

Each contains  
required  
competencies  
and assessments



# What is in the curriculum library?

- <https://curriculum.nshcs.org.uk>
- Work-based competencies and assessments are listed for each specialism
- The principles, values and standards of behaviour and practice of healthcare scientists are contextualised through the Academy's Good Scientific Practice (GSP)
- GSP maps to the HCPC Standards of Proficiency which are the professional standards which every Clinical Scientist must meet in order to become registered, and must continue to meet in order to maintain their registration.
- STP curricula are designed to meet these Standards
- Competencies and assessments are mirrored in the trainees record on OneFile



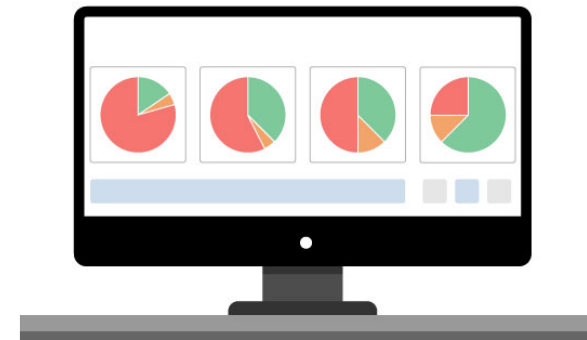
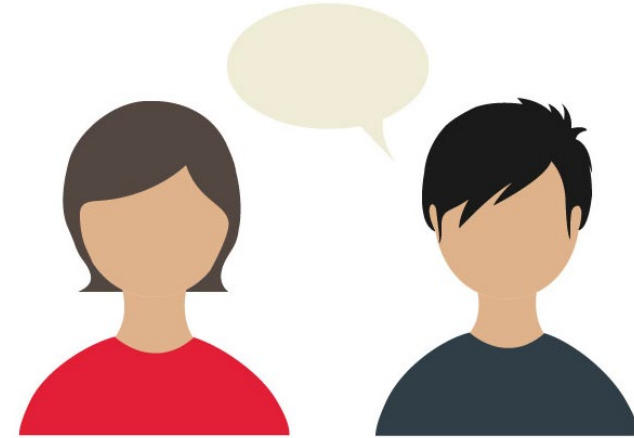
# Assessment of competence

- Competence: The ability to do the job properly
- Competency: The knowledge, skills, values, attitudes and experience to do the job properly



# What are the types of assessments?

- Competencies
- Direct Observation of Practical Skills (DOPS)
- Observed Clinical Event (OCE)
- Case-Based Discussion (CBD)
- Multi-Source Feedback (MSF)



All recorded and reviewed in  
the e-portfolio

# Observation

- Upload evidence to demonstrate they have met the learning outcomes of the module
- What is acceptable is open to discussion between you and your trainee
- It should be of suitable standard to meet the expected knowledge

	Type of Assessment
Method	Observation
Purpose	Observe performance of a skill linked to a STP module learning objective.
Takes place...	Upon trainee's request to assessor.



# DOPS - Direct Observed Practical Skill

- Assess the performance of a practical skill or procedure which may include interaction with a patient through observation
- DOPS may reflect routine tasks e.g.
  - measuring the radiation output of a treatment machine
  - running a particular diagnostic test
  - performing sensory awareness tests
- Feedback is generated, learning needs identified and an action plan generated

	Competencies
Method	Observation
Purpose	Observe and assess the conduct of a practical procedure.
Takes place...	Reviewed and documented in the moment.

# OCE – Observed Clinical Event

- To assess a clinical encounter which may be with a patient, member of the public or another healthcare professional and are mostly discussions (possibly around a task)
- Routine ‘clinical’ task e.g.
  - taking a clinical history
  - discussing the problems of small field dosimetry and appropriate use of detectors
  - explaining how to take a blood sample
- Reviews communication skills, clinical judgement, organisation and efficiency

	<b>Competencies</b>
<b>Method</b>	Observation
<b>Purpose</b>	Observe and assess a clinical encounter.
<b>Takes place...</b>	Reviewed and documented in the moment as it is happening.

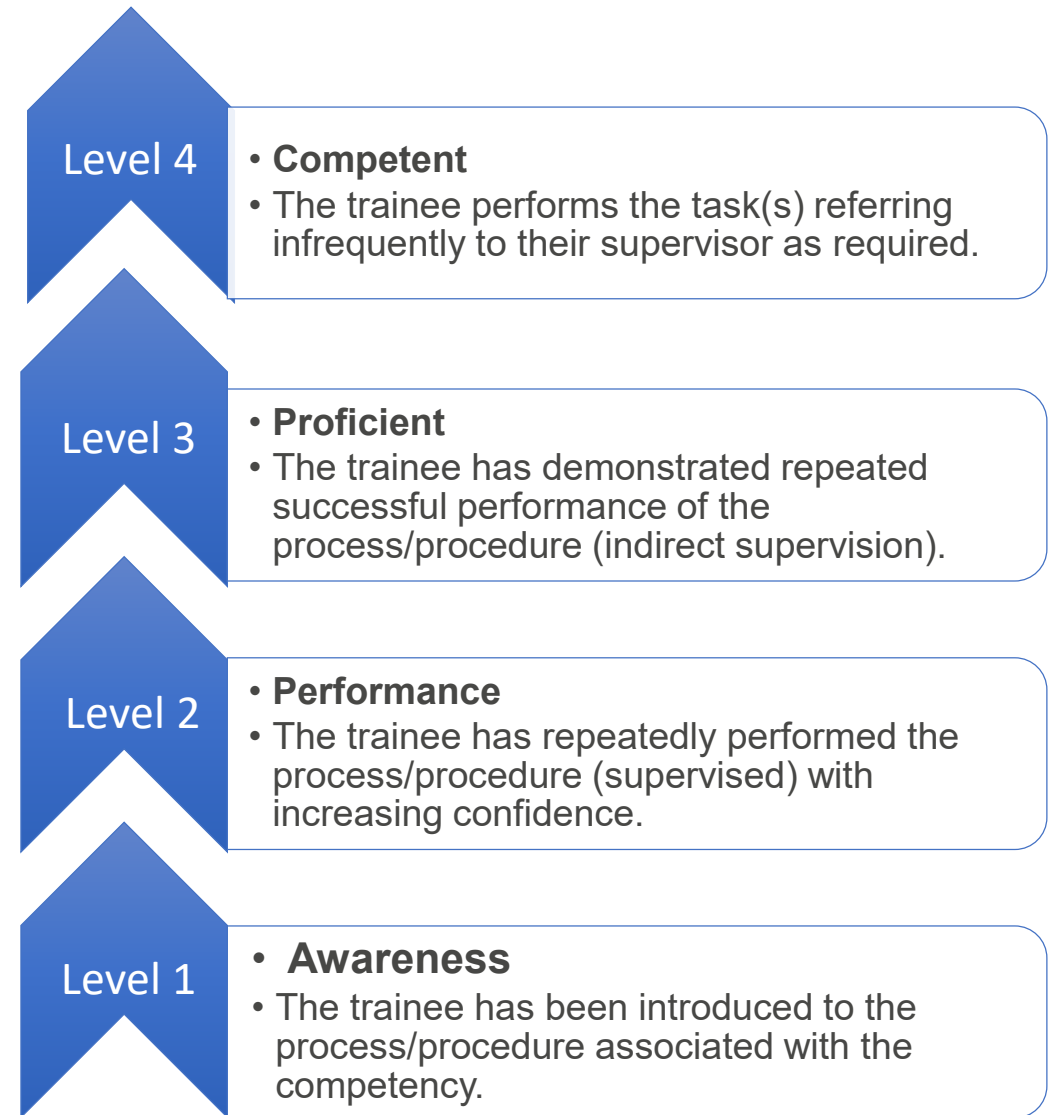
# CBD– Case Based Discussion

- To assess the trainee’s knowledge and understanding of any aspect of a clinical ‘output’ for which they have been wholly or partially responsible
- The trainee prepares two clinical cases and the assessor chooses one for discussion and may cover e.g.
  - discussion of the science
  - professional, ethical and governance frameworks of practice
- Explores decision making and the application of clinical knowledge
- Use **throughout the placement** to gauge understanding
  - Not just before OSFAs
- Don’t all have to be assessed
- Use to back up competencies

	Competencies
<b>Method</b>	Discussion
<b>Purpose</b>	Discuss an outcome/output from workplace activity using a record result.
<b>Takes place...</b>	After clinical event, discussing explaining, justifying aspects of the report/record/result including aspects of professionalism.

# Decisions on competency

- Consider the levels described and how they may apply differently to rotations and specialisms during the course of training
- Each module has a number of assessments and these provide an opportunity to demonstrate competency
- Use the detail given on OneFile under each competence where there are suggested knowledge and understanding statements.



# Assessment hierarchy: Level 1

## Level 1

- **Awareness**
- The trainee has been introduced to the process/procedure associated with the competency:

➤ The trainee has read all relevant SOP's, COSHH and Health and Safety and other recommended documents

➤ The trainee has an introductory level of knowledge and understanding of the application of the process/procedure

➤ The trainee has been shown how the process/procedure is performed and allowed to perform the task(s) under supervision

➤ The trainee requires direct supervision

- **This Level may be applied for competencies and assessments undertaken on rotation in the first year**

# Assessment Hierarchy: Level 2

## Level 2

- **Performance**
- The trainee has repeatedly performed the process/procedure (supervised) with increasing confidence:

➤ The trainee has a knowledge and understanding of the task(s) and is able to identify situations when they should be applied or are relevant

➤ The trainee performs the task(s) with few or no errors and asks fewer questions related to the task

➤ The trainee may only require indirect supervision

- **This Level may be applied for competencies and assessments undertaken on rotation in the first year and when performing tasks from Specialist Modules**

# Assessment Hierarchy: Level 3

Level 3

- **Proficient**
- The trainee has demonstrated repeated successful performance of the process/procedure (indirect supervision):

▶ Trainee has developed a level of knowledge & understanding of the competency that allows them to critically analyse the task(s) and outcomes produced

▶ The trainee is able to identify potential sources of error and can correctly resolve problems that may occur

▶ The trainee is able to successfully perform the task(s) without supervision

- **This Level is achievable for most procedures from the Specialist Modules**

# Assessment Hierarchy: Level 4

## Level 4

- **Competent**
- The trainee performs the task(s) referring infrequently to their supervisor as required:

The trainee has repeatedly demonstrated a level of knowledge, skill and aptitude of the competency to work with a level of independence but still recognising their scope of practice. They are able to demonstrate or train other staff in the processes and procedures relevant to the competency

- **This Level is expected for most procedures from the Specialist Modules**
- **This Level compliments the Good Scientific Practice Domain of Clinical Leadership:**
- **Readiness for practice e.g. Shows competency at a level that is appropriate for a newly registered clinical scientist, is a 'safe pair of hands', dependable, trustworthy, efficient, knowledgeable about their specialism**



# Competency Assessment

## CLINICAL EXPERIENTIAL LEARNING

The clinical experiential learning for this module is:

- Follow a patient through the complete pathway of radiotherapy treatment and participate in the pathway processes.
- Undertake validation calculations on routine treatment plans.
- Set up equipment and undertake quality control measurements on linear accelerators.
- Participate in the calibration of treatment equipment.
- Undertake a risk assessment and room survey of a treatment room.

All of these experiences should be recorded in your e-portfolio.

The following section details the competence and knowledge and understanding each trainee must gain. Each competence is linked to the relevant learning outcomes and trainees must demonstrate achievement of each competence for each linked learning outcome.

## PROFESSIONAL PRACTICE

Trainees should ensure they refer to the professional practice learning framework and continue to achieve the professional practice competences alongside the competences defined in this module.

# Evidence for competencies

- The trainee must demonstrate the knowledge/practical skills required for each competency
    - Upload evidence onto OneFile to support this
    - Don't necessarily need to be competent to do the task
  - The evidence must relate to the work of clinical scientists in that specialism
  - Evidence should show that the trainee **Undertook and Understood** the activity
  - Many competencies can be grouped together
    - single pieces of evidence can be used to demonstrate their completion
  - You can help by quizzing the trainee to ensure the competency is met
    - May then be appropriate to include less actual evidence eg front sheet of a QA
  - Project work can be a very *motivational and efficient* way to complete competencies
    - Discuss types of evidence with your trainee
    - Encourage them to be innovative and reflective
- Get them to do it as they go along and not all at the end...**

# What to upload as evidence?

- Not just a 'tick box' exercise but also not a 10,000 word essay
- Evidence that meets a competency comes in many forms but is likely to be a report
- Think about the competency they are trying to demonstrate: a report that says "it's safe" needs more justification: a video of the tests undertaken demonstrates it
- Accept photos – but ensure they get permission to use them

What isn't right:

- "My supervisor saw me do this"
- 10 page extract from standard textbook or SOP

What about  n?

**Plagiarism**

- Trainees must demonstrate that THEY undertook it, and that THEY understood it.
- Supervisors have a responsibility to make sure the evidence is all the trainees own work.

# What to upload as evidence?

- Include

- Reports
- Details of issues and resolutions (and why!)
- References
- Link to other competencies it may fulfil (rotational or specialist)
- Project work

- Exclude

- Excessive background theory (covered in MSc)
- Irrelevant material
- Patient identifiable details (anonymise)
- Essays
- Extract from textbook
- Plagiarised material

# Ideas for good evidence...

## “General competency”

Examples could be:

- a description of the problem or clinical issue being considered;
- a case report, treatment plans;
- analytic results etc;
- **references** to academic papers or guidance documents about the condition;
- evidence prepared for other purposes, e.g. routine calibrations, audits etc. can be used.

## “Clinical competency”

Using anonymised information such as:

- test results;
- a management plan;
- evidence that they understand the impact on the patient.

They need to demonstrate the knowledge and/or practical skills required for each competency but **they do not need to prove they are competent to do this task alone.**

## “Professional competency”

Show their engagement through upload of evidence demonstrating:

- Raising awareness;
- Being inspirational to others;
- Getting involved;
- Becoming an ambassador;
- Spreading the word.

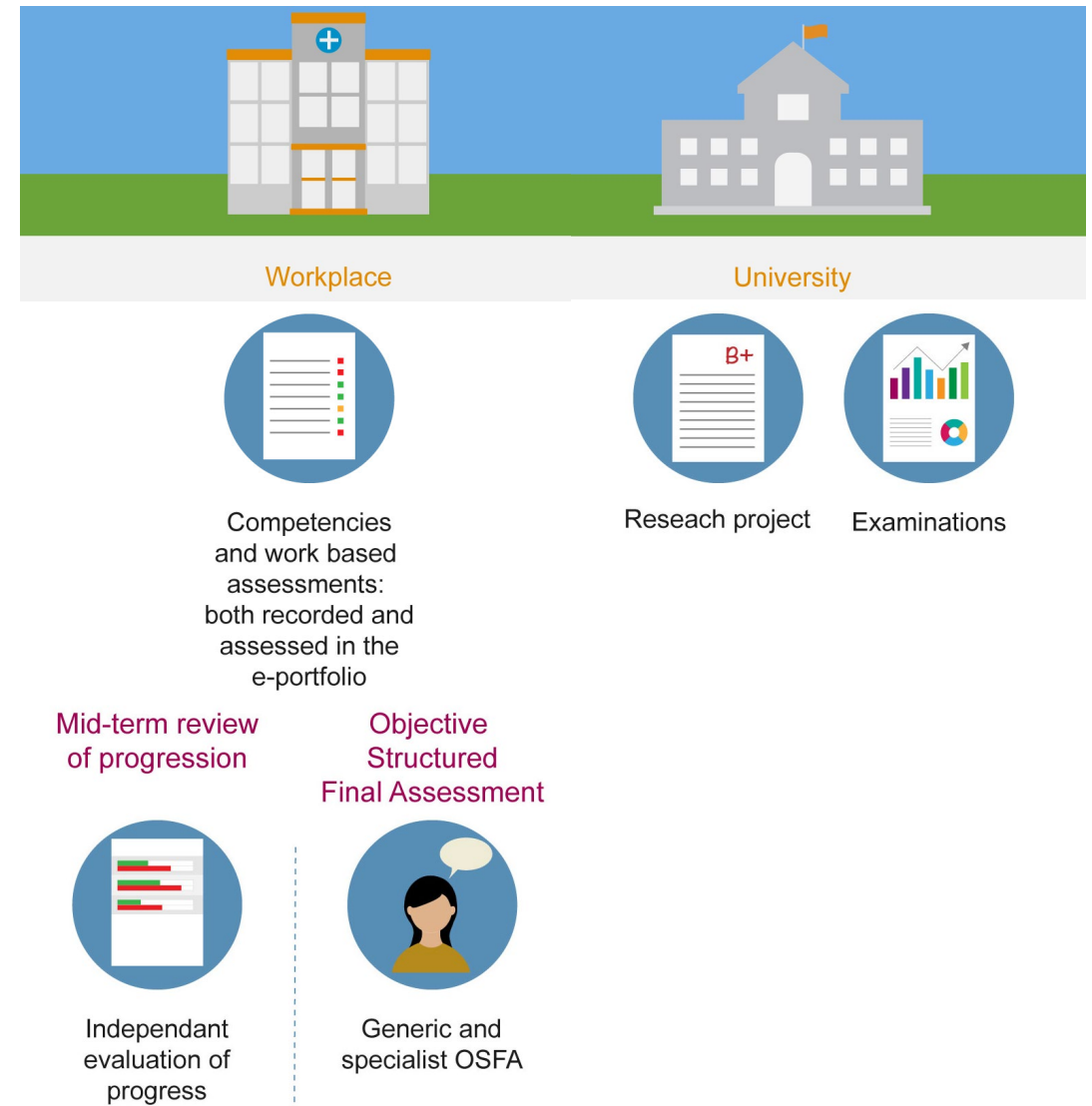
# Competencies and e-portfolio OneFile

- Upload the evidence as soon as possible, little and often. (A bulk upload on the final day won't work)
- Set deadlines, be realistic, and encourage them to stick to plans
- Assessor needs to review, comment, and sign off the evidence
- Trainee must have assessments submitted, AND assessed AND have it be “satisfactory” by the deadline



# Other workplace-based assessments

- What else do they need to complete?
  - Multi-Source Feedback
  - Mid-Term Review
  - Reflective log
  - Clinical experiential learning
  - Observed Structured Final Assessment



# Reflective practice

- What? When? Who? Where?
- What were their thoughts before and after the event?
- How did they feel about the event?
- What choices did they make and why?
- What could they have done differently?
- How might they approach change in the future?
- What would they have done differently?
- Are the lessons they learned useful for other or future activities?
- What did they find the greatest challenge in doing this activity?
- Why did they find this to be a challenge?
- What did they learn about themselves from this activity?



# Reflective practice

- Reflective Log provide an opportunity for trainees to reflect on what they feel:
  - Is the trainee's opinion similar to that of the supervisor?
  - Is the trainee able to reflect on things they did well and would like to do again?
  - Is the trainee able to reflect on things they would improve next time?
  - Is trainee able to work within their scope of practice / remit and asks for help during challenging situations?
  - Is trainee able to reflect on the overall comments and feedback and use it constructively to develop their practice?

# OSFAs

<https://nshcs.hee.nhs.uk/programmes/stp/trainees/osfa/>

<https://nshcs.hee.nhs.uk/knowledgebase/stp/trainees/documents/#stp-trainees-documents-osfa>