

**ASSESSMENT FOR CERTIFICATION OF COMPETENCE IN
FETAL MORPHOLOGICAL EXAMINATION**

**LABORATORY LITTER ASSESSMENT - BOUIN'S FLUID
FIXED HEAD SECTION EXAMINATION**



**Royal Society of
Biology**

**THE INTERNATIONAL REGISTER OF FETAL
MORPHOLOGISTS**

LABORATORY LITTER ASSESSMENT - BOUIN'S FLUID FIXED HEAD SECTION EXAMINATION

Name of Candidate: LOUISE SPEIGHT _____

Name of Applicant (Laboratory):	Louise Speight, Labcorp (Harrogate)
Examination type assessed (species):	BOUIN'S FLUID FIXED HEAD SECTION EXAMINATION RABBIT
Date of assessment:	07 December 2022
Names of assessors:	Nancy Powell, Julian French

Specimens used for assessment: [insert Study code, litter and fetus ID in each box]

<i>Training</i> 1	<i>Training</i> 2		
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Key for abbreviations:

P - Needed prompting

PP - Needed frequent prompting

N - Nervous

VIP - Volunteered information previously

DK - Didn't know the answer

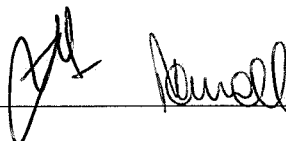
NC - Not consistent in technique

Assessor's Summary:

[delete or underline to highlight the appropriate description from the options below:]

Competent/competent and focussed / engaged and focussed during the assessment and
demonstrated / effectively communicated a sound knowledge / an impressive
understanding / of all aspects

Assessor signatures



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COMMENTS FROM LABORATORY SPECIMEN EXAMINATION: [insert free text in boxes]

Talk through/procedure

Question	Acceptable Response	Response
Sectioning - how many sections, why?	Consistency with colleagues; enables examination of specific head regions	Check external observations Sections through angle of jaw - genio glossus muscle.
What is the importance of keeping the sections symmetrical?	Lateral symmetry or organs/brain areas; <u>able to identify anomalies easier</u>	check palate + rugae Lay out sections in order. - Depends of size of head - no. sections. Standard thickness.
How do you achieve this?	- adjust, cut wedge to make next section symmetrical.	
What would you do if a section wasn't symmetrical?	<u>Recut/resection</u>	
Describe to me what you are doing	<u>Looking at both sides of section (demonstrated).</u> <u>Comparing and checking laterality of paired structures</u> Re-sectioning <u>Looking at size shape form</u>	In each section, salivary glands, teeth genio glossus muscle. Tongue - check for attachment. Nasal septum, teeth Eyes, lens, retina (check lens for size appearance), vitreous body smooth, ventricles optic nerves, lateral ventricles, pineal gland. 1st ventricle, 4th ventricle, pineal gland.
What might you see in that <u>nasal</u> section? [Describe section]		Nasal septum absent, crumpled not as 'fatty', haemorrhage.
What might you see in that <u>eye</u> section? [Describe section]		Retina, cornea, lens - looking for anything abnormal, texture, folds.
What might you see in that <u>brain</u> section? [Describe section]		laterality important internal ventricle distended right size, extended expected position
Note when candidate is recording observations - as they are found or at the end of the examination		During examination

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Talk through/procedure

Question	Acceptable Response	Response
Confirm that sections are being manipulated appropriately.		Sections - both sides examined

Consistency in procedural routines

Question	Acceptable Response	Response
Can you think what the importance of consistency in magnification across examiners might be?	Consistency is important so that all examiners see and record to the same level of detail.	Always the same 0.63x
Do you always use the same sequence and routine for examination? Why do you think that it is important?	Yes - don't miss anything, important for pattern recognition, subconscious alert.	✓
Do you think it is necessary to look at structures from more than one aspect?	Yes - build up picture of structures by following them through the sections, ensuring correct size, shape and form. Important to look at both sides of sections	✓
Which structures would you examine in situ before you go on to disturb the tissues?	<u>Lenses before clearing</u> <u>humour to check retina,</u> <u>palate before sectioning,</u> <u>cerebellum</u>	

Terminology and recognition levels used

Question	Acceptable Response	Response
How do you decide to record observations?	<u>User guides and recognition levels</u>	Training material.
What could you do to make sure that you've chosen the most accurate term?	<u>Discuss with colleagues,</u> <u>reference material, user</u> <u>guides and recognition levels</u>	
Would you assign a severity level, why?	<u>User guides and recognition levels</u>	Mallam's or variation

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Terminology and recognition levels used

Question	Acceptable Response	Response
How do you ensure other examiners are using the same terms as you for the same observation?	Recognition levels/ peer review/ consistency check. Mention that examiner records are traceable back to original examiner.	✓ 1P. 50P.
And for severities?	Discuss/review findings with colleagues, refer to recognition levels/user manuals/training /reference material/background data	✓ 1P.

Recognition of artefacts

Question	Acceptable Response	Response
How would you decide if real or artefact?	Does the condition of adjacent sections support your decision?	
	Reconstruct the sections, check forwards and backwards through the sections, both sides of each section	
What procedural errors are likely to lead to artefacts?	Are the margins of the structure smooth or jagged?	crystals .
	Has the specimen not been placed in sufficient fixative, resulting in poor decalcification?	Distortion because of difficulty to section
	Has the fixation caused any shrinkage or swelling?	
	Is the structure an unusual colour?	
	Background knowledge/experience	
	Refer to necropsy observations, correct handling of specimens	

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Recognition of artefacts

Question	Acceptable Response	Response
Can you think of any observations which could be caused by an artefact?	Cystic dilatation, haemorrhage, absent pinna, forceps damage to palate, blood in cochlea, head damaged when cut off from body	Skinned heads. Damage VIP
Would you record artefacts?	Explain how	Record as system.
How would you record an artefact?		

Correct identification of anomalies

Question	Acceptable Response	Response
What could you do to make sure that you've chosen the most accurate term?	Discuss/review findings with colleagues; refer to recognition levels/user manuals/training material/background data.	VIP
Why have you used that term? (any observation with a recognition level, relative to the norm)	Give reason based on degree of displacement, normal variation. Based on symmetry; alignment; position in relation to other structures, normal variation	VIP
How would you decide if you thought one eye was displaced?	Give reason based on degree of displacement, normal variation, alignment; position in relation to other structures, normal variation; compare to normal specimen	
What would you do if you thought the pituitary gland was missing?	<u>Recut/resection</u>	
What anomalies might you see in the/state region?.		

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Correct identification of anomalies

Question	Acceptable Response	Response
What anomalies might you see in the/ state region?		
What anomalies might you see in the/state region?		

Demonstration of knowledge of consequence of findings (choose minimum of 3 from this section)

What else might you see with:	Acceptable Response	Response
Single naris	Single incisor socket, displaced orbital sockets, form of oral cavity	
<u>Flat eye bulge</u>	<u>Check for presence/size of eye</u>	Concave
<u>Domed head</u>	Dilated ventricles (lateral, 3 rd and 4 th) Check for artefact and size of fetus <u>small?</u>	Dilation.
<u>Short lower jaw</u>	Large/small/ <u>protruding tongue</u> , absent incisors, form of oral cavity	deep palate, can't see or position.
Skin lesion/haemorrhage cranium	Meningocele (skin covered), 4 th ventricle dilation.	
What would you expect to record in association with low fetal weight?	Thin, translucent, fragile skin, oedema over snout, domed cranium, apparent change in size of eye bulge, non-eruption of incisors, "perimeningal cavitation", dilation of ventricles, change in shape of lens, separation of subcutaneous layers, very clear fixation [Check day of PM if whole litter affected]	