UNIT PLANNER MIDDLE SCHOOLING PEDAGOGIES

Pre-service Teacher name: Jem Cheesman & Moganeswary Renganathan	**Planning process**: Planned collaboratively with peer	**Date**: 29/10/2025
Year level **Year 7-8**		

Unit title: THE DRAMA OF CELL LIFE

Learning area: *(Science and Drama)*

Strand(s) and sub-strand(s) from the Australian Curriculum (AC):
Strands: Science & Drama
Sub-strands: Science Understanding & Exploring and responding

Australian Curriculum content description(s):
AC9S8U02: Analyse the relationship between structure and function of cells, tissues and organs in a plant and an animal organ system and explain how these systems enable survival of the individual

AC9ADR8D01: Develop performance skills relevant to selected drama styles and/or forms Appendix 7

Relevant parts of the achievement standard from the Australian Curriculum:
By the end of Year 8 students **explain the role of specialised cell structures and organelles in cellular function and analyse the relationship between structure and function at organ and body system levels** and (they employ performance skills to convey dramatic action and communicate ideas, perspectives and/or meaning when performing drama to audiences.) Appendix 7

General capabilities consideration:

- Literacy: Using scientific vocabulary and describing functions through gesture and movement.
- Digital Literacy: Quick use of digital visuals – slides
- Critical and Creative Thinking: Reflecting on the functions of cell structure for both plant and animals.

Learning intentions:	**Success criteria for students by the end of the 4 lessons:**
LI 1: To recall living things and describe basic structures and functions of cells in plants and animals. LI 2: To represent biological ideas through drama conventions. LI 3: To interpret and communicate scientific meaning through movement and voice. LI 4: To participate in drama-based activities that demonstrate understanding of scientific concepts of cells. LI 5: To reflect on how drama can express scientific ideas.	SC 1: I can identify and describe the basic structure and function of plant and animal cells. SC 2: I can explain one similarity and one difference between plant and animal cells. SC 3: I can use correct scientific vocabulary when describing cell structures. SC 4: I can form movements into a short, dramatic performance easily interpreted by my peers SC 5: I can identify how drama expresses scientific ideas. SC 6: I can reflect on my learning about cells through performance-based activities.

DETAILED LESSON PLANNING

Legend

QTM Elements – Implementation

Intellectual Quality – Metalanguage

Quality Learning Environment - Student Self-Regulation

Significance - Narrative

Learning Intentions/Success Critieria

Appendix

Link to Metalanguage video - https://www.youtube.com/watch?v=i2a51sO2l9A

Lesson 1 16/10/2025 (Thursday)				
QTM elements	**What will we do/ Teaching Strategies?**	**What will Students do?**	**Time Frame**	**Learning Intentions/Success Criteria**
Appendix 1 **Metalanguage** **Student Self-Regulation (SSR)** **Narrative**	**1. Hook activity see Appendix 2** Jem and Moga, wearing visual representations of a human and a plant cell, perform an improvisation. This will be a discussion between the different cell types that will incorporate the following. a. Diagnostic Test Jem and Moga will incorporate questions into the skit to assess students' knowledge of cells. Example: *Moga – Hey, what are you? What do you do here?* *Jem – Let's ask them. I start with a C and end with a L, and I build everything in life.*	Students view the skit. (Hook) see Appendix 2 Students will demonstrate prior learning (specifically, metalanguage) in their response to questions from the skit. This will provide an overview of the classes grasp of concepts and any individual learners who may require scaffolding or extension activities. Students listen actively, engaged to the hook, respond proactively to the skit questions and demonstrate curiosity through answers. Pedagogy – Retrieval	5-7 min	LI: 1,2 & 5 and SC: 1 & 5
	2. Transition: Moga and Jem will transition into the explicit teaching through the skit. *Example:* *Jem – Moga, tell them all about cells.*	No requirements of students. Smooth transition to encourage minimal distraction	1 min	

	3. Development: Moga - Explicit Teaching with PPT Appendix 3 Moga explains about cells, structures, and the difference between animal and human cells using slides. Students learn key metalanguage terms during this session for later activities.	Students will listen to the explicit teaching. Participate in discussion points and answer questions asked by Moga during PPT. Students demonstrate attentive listening skill with appropriate behaviour	7-10 min	LI: 1 and SC: 1 & 2

	4. Consolidation a. Introduction to Metalanguage (Jem) – (Chinese Whispers- Drama i. Explain the concept of special language surrounding the science of cells. i. Explain the concept of special language surrounding the science of cells ii. Hand out glossary with this week's metalanguage. Appendix 4 iii. Explain that this will be added to every week. iv. Have a brief look at the words on the sheet. v. Lead the students in a game of Chinese Whispers vi. The outcome of Chinese whispers usually ends with a sentence nothing like how it starts. This provides an opportunity to reinforce the importance of taking note of definitions, ensuring we understand our topic correctly.	Students will get an opportunity to read out one of the definitions on Glossary. Students will form one line; Jem will whisper a sentence like the one below. This will be whispered to the next person, so on till the end of line, then see what the last person thinks the sentence was. Students will be regulated by moving and changing pace. This inclusive activity helps them reflect on how understanding words and communicating clearly are critical to learning. *Example – The plant cell thinks it's big like the Hulk and can feed the whole world!*	5 min	LI: 2 & 3 and SC: 3 & 4
	b. Think-Pair and Share Moga guides a discussion linking the drama and the hook, asking reflective questions about how animal and human cells interact or differ. Example: i. If you choose to be only a unit of a cell for a day, which cell would you be and why? What would you explore about being that cell? i. If you choose to be only a unit of a cell for a day, which cell would you be and why? What would you explore about being that cell?	Students demonstrate collaborative skills and capacity for task orientated discussion through pairing up with partner and show respectful turn-taking, attentive listening, discuss their responses. At the end of this section, they will have the opportunity to share the main points with the class.	7 min	LI: 1 & 5 and SC: 2 & 6

	Jem and Moga will participate in different group discussions. Taking note of their grasp of the lesson content.			
	5. Development a. Introduction to Learning through Drama (Jem) i. Share PPT about drama. Appendix 5 ii. Watch video on Mr Bean. iii. Play Pass the Cell Sentence game.	**5. Development** a. Students will listen to the PPT b. Watch the Mr Bean Video c. Participate in Pass the Cell Sentence game.	7-10 min	LI: 2, 3 & 4 and SC: 4 & 5
	6. Exit Reflection (Jem and Moga) In teams, students fill in the missing cell labels and facts on the 'costume posters' displayed on the wall appendix 6. They reflect on what they learned using the metalanguage and share one 'WOW' fact to close the lesson.	Students gather around costumes and work together to fill in labels	5-8 min	LI: 1 & 5 and SC: 1, 3 & 6

Appendix 1

Appendix ____ **Summary of QTM Elements in Lesson 1**

LESSON ONE ELEMENTS – CODING

1.5 Metalanguage	1	2	3	4	5
2.5 Student Self-Regulation	1	2	3	4	5
3.6 Narrative	1	2	3	4	5

INTELLECTUAL QUAILITY – METALANGUAGE

Jem and Moga Interpretation of Information for the Unit Plan

- High levels of language and how texts work
- Frequently draw att. Texts, images and symbols
  Eg. Discussion focuses on different sentences, types of text, etc
- Poor example activities that draw no attention to language.

Metalanguage

1. No metalanguage. The lesson proceeds without the teacher or students stopping to comment on the language being used
2. Low metalanguage. During the lesson terminology is explained or either the teacher or students stop to make value judgements or comment on language. There is, however, no clarification or assistance provided regarding the language.
3. Some use of metalanguage. At the beginning of the lesson, or at some key juncture, the teacher or students stop and explain or conduct a "mini-lesson" on some aspect of language, e.g. genre, vocabulary, signs or symbols.
4. Periodic use of metalanguage. The teacher or students provide commentary on aspects of language at several points during the lesson.
5. High use of metalanguage. The lesson proceeds with frequent commentary on language use.

QUAILITY LEARNING ENVIRONMENT – STUDENT SELF-REGULATION

Jem and Moga Interpretation of information for Unit Plan

- High Autonomy and Initiative
- Low teacher intervention
- Minimal behavioural issues.
- Teachers are disrupted by challenging behaviour
- Students are distracted and exhibiting behaviour disruptive to learning

Good SSR

- Consistently self-motivated, focused, and engaged in all learning tasks.
- Mostly focused and responsible, showing good participation.

Poor SSR

- Often distracted to rarely engaged/ or disruptive.
- Too dependent on teacher direction to maintain effort.

Students' self-regulation

1. Few students demonstrate autonomy and initiative in regulating their own behaviour. Teachers devote more time to disciplining and regulating student behaviour than to teaching and learning.
2. Some students demonstrate autonomy and initiative in regulating their own behaviour, but there is still substantial interruption to the lesson for disciplinary and/or regulatory matters, as an attempt to avert poor behaviour, correct past behaviour or as an immediate reaction to poor student behaviour.
3. Many students demonstrate autonomy and initiative in regulating their own behaviour and the lesson proceeds coherently. However, teachers regulate behaviour several times, making statements about behaviour to the whole class, or perhaps focusing on students who are acting inappropriately.
4. Most students, most of the time, demonstrate autonomy and initiative in regulating their own behaviour and there is very little interruption to the lesson. Once or twice during the lesson, teacher comments on or correct student behaviour or movement.
5. All students, almost all of time, demonstrate autonomy and initiative in regulating their behaviour and the lesson proceeds without interruption.

SIGNIFICANCE – NARRATIVE

Jem and Moga Interpretation of information for Unit Plany

- Strong – stories written, told, read, viewed or listened to help illustrate or bring to life the knowledge
- Type - personal stories, biographies, historical accounts, case studies, literary and cultural texts and performances
- Poor – Unrelated to knowledge or detract or there are no narratives.

Narrative

1. Either narrative is used at no point in the lesson, or the narratives used are disconnected or detract from the substance of the lesson.
2. Narrative is used on occasion as a minor part of the lesson and/or is loosely connected to the substance of the lesson.
3. Narrative is used at several points in the lesson to enhance the significance of the substance of the lesson.
4. Narrative is used for a substantial portion of the lesson to enhance the significance of the substance of the lesson.
5. Narrative is used throughout the lesson to enhance the significance of the substance of the lesson.

Appendix 2

Cell Improvisation

Bump into each other

Human – I'm the star

Plant – what are you

Prior knowledge test

Animal cells are better

- Round
- Cell membrane (Osmosis like a ghost
- Nucleus (In the centre, but super controlling)
- Cytoplasm (is a bit of a drama queen, having all sorts of reactions)
- Build all sorts of things like a heart and an eyeball and a toenail

Plant cells are the best!

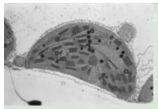
- Square
- Cell with wall layers, tough
- Chlorophyll (photosynthesis elements)
- Create primary producers like flowers, cacti and trees.

Appendix 3

Cell and Body System

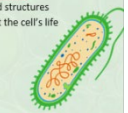
Learning Intention
To explore the structure and function of plant and animal cells, and express scientific ideas through drama by representing, communicating, and reflecting on biological concepts in performance.

About Cell

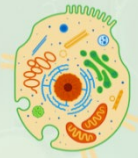


- Cell basic unit of life
- All organisms are made of and develop from cells
- Some composed of only a single cell (unicellular) which is usually identical to parent
- Most organisms are composed of many cells (multicellular)

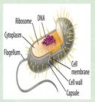
- Cells are small
- All living things show an orderly structure, or organisation.
- Cells contain specialized structures (organelles) that carry out the cell's life processes

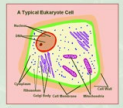


Types of Cell



Prokaryotic Cells	Similarities	Eukaryotic Cells
Small and simple	Have a cell membrane	Large and complex
No nucleus	Have cytoplasm	Have a nucleus
No membrane-bound organelles	Have genetic material (DNA)	Have membrane-bound organelles (nucleus, chloroplasts)
Found in bacterias (*E. coli*)	Carry out life processes	Found in plants, animals, fungi, protists
Always unicellular		Can be multicellular or unicellular

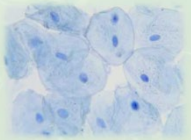




Plant and Animal Cells

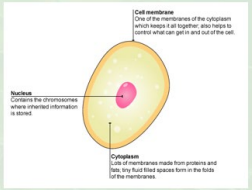
Cheek Cells

- This is what your cheek cells should look like under a microscope.
- They are blue because scientists use a special dye so the cells show up.



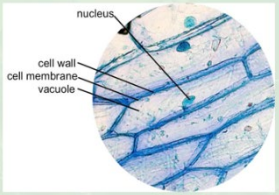
Animal Cells

- Animal cells have **3 major** parts which you need to know about.
- The **cell membrane** controls what comes in and out of the cell
- The **cytoplasm** is a liquid where all the chemical reactions take place
- The **nucleus** is the brain of the cell – it controls the activities of the cell.



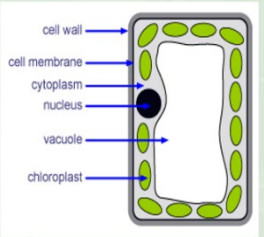
Plant Cells

- A Plant cell has more parts than an animal cell
- What are these extra parts?



Plant Cells

- Cell wall gives the cell a fixed shape and helps the plant stay upright
- The vacuole contains a liquid called cell sap, which keeps the cell firm
- Chloroplasts are specific to the plant cell only. It contain a chemical called chlorophyll – this helps the plant carry out photosynthesis



Appendix 4

Glossary

Cell – All living organisms are made of cells. It is the smallest unit of living material.

Chlorophyll – The green pigment in chloroplasts that captures sunlight for photosynthesis.

Chloroplast – Contains the green pigment, chlorophyll, and absorbs sunlight during photosynthesis.

Cytoplasm – The gel-like substance inside a cell where chemical reactions take place.

Eukaryotic Cell – A large, complex cell that has a nucleus and membrane-bound organelles. Found in plants, animals, fungi, and protists.

Multicellular – Made of more than one cell (plants and animals).

Nucleus – Controls all the activities of the cell and contains the genetic information.

Organ – A structure made of several tissues, which performs a particular function.

Plasma Membrane (Cell Membrane) – The outer boundary of the cell that controls what enters and exits.

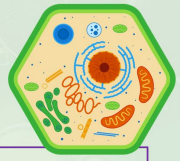
Prokaryotic Cell – A small, simple cell without a nucleus or membrane-bound organelles. Found in bacteria and archaea.

Unicellular – Made of a single cell (bacteria and some protists).

Vacuole – A permanent structure in plant cells which contains cell sap

Appendix 5

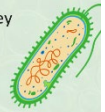
Learning through Drama



Learning Intention
To explore the structure and function of plant and animal cells, and express scientific ideas through drama by representing, communicating, and reflecting on biological concepts in performance.

What is Drama

Drama is a way of telling stories or exploring ideas by acting them out.
It's like pretending to be someone else to show how they feel, what they do, and what happens to them



Types of Drama

- *Drama can be funny*
- *Drama can be sad and serious*
- *Drama can be made up on the spot - Improvisation*
- *Drama can be memorised – A play*
- *Drama can be about real or imaginary things*

Mr Bean goes to Science class

https://www.youtube.com/watch?v=tjbpbjj9bJk

Learning through Drama

- Acting out an idea helps it stick in our minds.
- Acting out an idea helps us form a picture in our mind.

Pass the Cell Sentence

- I will give you a word. Tell me a short sentence about this word.
- Pass the cell sentence to someone else.
- The next person will add to the sentenced
- Soon we have story about cells.

What have we learnt

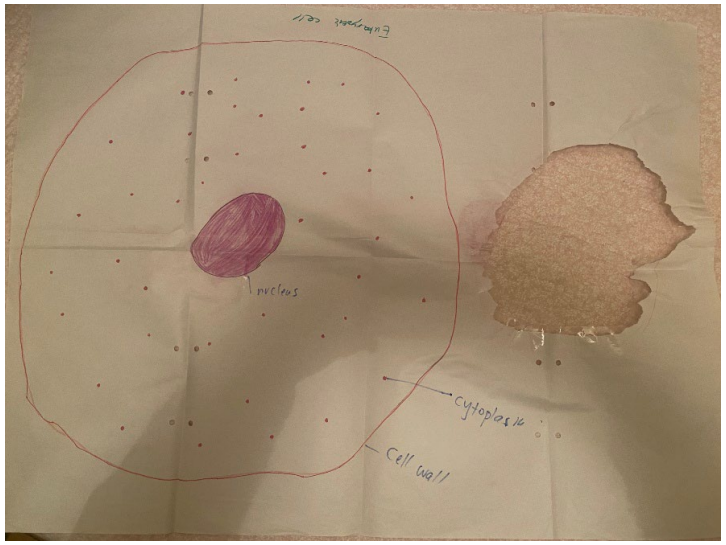
- Different types of drama
- How drama helps us learn

What is next

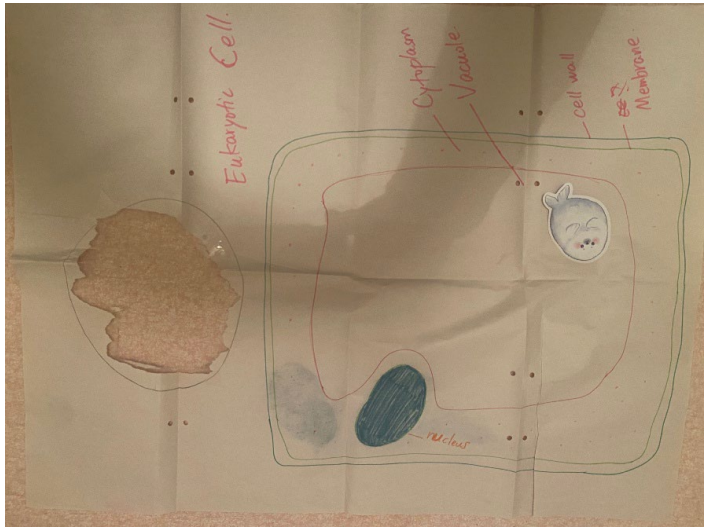
- We are going to focus on Improvisation and movement to help us learn and remember what we've learnt.

Appendix 6 – Labelling Activity

Animal Cell



Plant Cell



Appendix 7 – Drama Achievement standard, Content Descriptors and Elaborations.

They employ performance skills to convey dramatic action and communicate ideas, perspectives and/or meaning when performing drama to audiences.

AC9ADR8D01: Develop performance skills relevant to selected drama styles and/or forms

Elaborations

Developing use of the body to communicate through, for example, movement and stillness, realistic and non-realistic movement; and developing performance skills such as exploring ways to transition between scenes

- Continuum – Year 9/10 - create possibilities by connecting or adapting complex ideas and proposing innovative and detailed variations or combinations

Experimenting with the elements of drama, relevant stylistic conventions or ways of manipulating form to create, shape and sustain dramatic action, situations and narratives, in order to achieve intended meaning and purpose; for example, through class, individual and group activities such as improvisation and basic devising in a selected style or in response to provided stimulus material