BURNIE COUNTS

# INSTRUCTIONAL MODEL

## Anticipate

- Identify Learning Intentions* and Success Criteria from Burnie Counts Scope and Sequence and where they will be introduced.
- Choose tasks based on the learning intentions, mathematics learning goals, and prior knowledge of students.
- Do the task and anticipate students' solutions and strategies.
- Select resources, materials, and ways for students to represent their thinking.
- Plan enabling and extending prompts.

## Engage

- Engage students with mathematical concept.
- Game/Number Talk/Warm-up (make real world connections where possible)
- Consolidation of previously learnt skills.
- Engage task needs to link to direct instruction.

## (re) Launch

- Might unpack the Learning Intentions and Success Criteria*
- Pose the task.
- Model the task as required.
- Clarify language, materials, and representations.

## I do, We do, You do...

- **I do:** Direct instruction and model skills and concepts so that students engage in learning.
- **We do:** Guided practice to scaffold, assist and assess so that students are engaged in collaborative practice.
- **You do:** Ongoing check in, feedback, roam conference so that students work independently with content and success criteria.


## (re) Summarise

- Sequence the selected work samples.
- Might unpack the Learning Intentions and Success Criteria*
- Support students in articulating solutions and strategies and provide reasons for their thinking.
- Pose questions to stimulate student thinking.
- Connect mathematical ideas and build understandings.
- Direct instruction as necessary.
- Synthesis, emphasise and record key mathematical points building on student contributions.

## (re) Explore

- Rich, challenging tasks.
- Mixture of collaborative and independent work.
- Use of manipulatives/materials/ visual aids.
- Interact with students, observing and monitoring how they are responding.
- Offer enabling prompts to students who are stuck and extending prompts to students who have finished.
- Select student work samples for subsequent sharing.
- Encourage sharing of partial solutions and/or discuss misconceptions that have arisen.
- CPA (concretely, pictorially, abstract) model

## Anticipate

- Complete the **Burnie Counts Lesson Template** in Learning Teams (where possible). Example of completed Lesson Template

Grade level: 6 Big Idea/s: Partitioning

**Burnie Counts Lesson Template**

**Curriculum Content Descriptor(s):**

Compare, order and sequence fractions and multiples. AC9M6N03

**Learning Intentions – students will:**

To compare and order proper and improper fractions greater than 1

**Success Criteria – students will be successful when they can:**

I can compare and order fractions greater than 1.

I can use mathematical symbols.

I can convert mixed numbers to improper fractions.

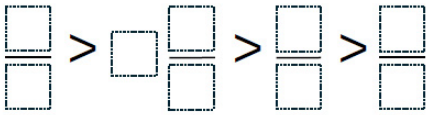
**Main Task**

Select and Rehearse the – do the task yourself and share strategies in your team.

Anticipate student responses and plan prompts.

ORDERING FRACTIONS GREATER THAN ONE

Directions: Using the digits 1 to 9 at most one time each, place a digit in each box to make a true statement. Try to find solutions where the fractions are in their lowest terms.



**Enabling Prompts**

(Prompts/questions for students who are struggling with the task)

1. Start with 2 fractions only.
2. Remove the mixed number option or place the mixed number at the start
3. Use numbers more than once.
4. Visual aids – fraction wall, fractions pieces, number line ect.

**Extending Prompts**

(Prompts/questions for students who need more challenge)

1. How many ways can you do it?
2. Use < > and =
3. Can you make your own problem in a similar format.

## Engage

**The Engage phase** refers to the first part of a lesson (no more than 15 minutes).

Using this time as a mental warm up helps get the lesson off to a good start. It settles students down and gets them ready to focus. The engage phase is the first part of a structured lesson approach, which is a High Impact Teaching Strategy.

**Why 'Engage'?**

- To review or practise something that has been taught in the past. For example, basic number facts.
- To practise a skill that is required for the lesson to come. For example, multiply (×) and divide (÷) by 10, 100, 1000 when the lesson involves converting from centimetres to metres and vice versa.
- To pre-load some knowledge required for an upcoming lesson later in the week. For example, vocabulary.

Reference

**Examples of Engage tasks:**

- Game/Number Talk/Warm-up (make real world connections where possible)
- Number talk video example
- Number talk resources
- Warm up resource
- Games resources
- Engage resources
- Engage resources 2

## (re) Launch

**The teacher:**

- Poses a variety of well-constructed questions in different ways, including open-ended, clarifying, scaffolding, probing and leading.
- Pose the task by providing students with clear and concise descriptions.

Reference

**The students:**

- Ask clarifying questions about vocabulary and materials.

Example of (re) Launch phase

## (re) Explore

**The teacher:**

- Uses targeted questions to focus on the learning objectives for the lesson.
- Uses questioning to enable and extend students' thinking, to check for misconceptions and gaps in knowledge.
- Encourage sharing of partial solutions and/or discuss misconceptions that have arisen.
- Encourages respectful dialogue and collaboration.
- Does not ask too many questions to dominate the conversation.
- Explicitly draws students' attention back to key mathematical ideas that underpin the learning intentions and success criteria of a lesson.
- Encourages students to work collaboratively.
- Provide manipulatives/materials/visual aids relevant to the task.
- Identify work samples for sequence of sharing in Summarise Phase.
- Uses CPA (concretely, pictorially, abstract) model. CPA resource

**The students:**

- Explore mathematical concept individually or collaboratively.
- Use problem-solving strategies.
- Feel safe to ask and respond to questions.
- Are prepared to struggle and make mistakes in order to make progress in their learning.
- Can respectfully respond to other students' questions.
- Know when they have achieved the goal of the lesson and feel successful.
- know how to use a range of concrete or virtual manipulatives.
- feel comfortable to use concrete or virtual manipulatives in their learning.
- can make the connections between the concrete materials, drawings, and abstract notation.

Example or (re) Explore phase.

## (re) Summarise

**The teacher:**

- Ask questions that probe student thinking and prompt to justify their responses.
- Guides students through the sequenced examples and the thinking involved in solving a problem to build upon concepts or skills.
- Provides opportunities for students to practise similar problems to assess if the concept has been understood (re Launch)
- Uses feedback to illustrate to students how they can move forward and improve their work.
- Shows students how to give respectful feedback to each other and how to self-assess.
- Uses questioning to stimulate students' thinking and check for misconceptions and gaps in knowledge.
- Direct instruction as necessary (move into Gradual Release)

**The students:**

- Use feedback to improve their understanding and develop thinking.
- Give and receive peer feedback respectfully.
- Are encouraged to ask probing questions.
- Gradually move to independent work on similar problems
- Know the intention or purpose of the lesson.

Reference

Using Questioning to Stimulate Mathematical Thinking

Example or (re) Summarise phase.

## I do, We do, You do...

**The teacher:**

- Explicitly teaches the mathematics needed for the task and teaches the techniques where content is explicitly introduced and explored.
- Invites questions and wonderings.
- Monitors student progress and gives immediate feedback.
- Models knowledge, skills and how to use manipulatives/visual aids.
- Worked examples support independent practice.
- Ongoing check in, feedback, roam room so that students work independently with content and success criteria.

**The students:**

- Focus on the steps and follow what the teacher is doing.
- Know how to use a particular procedure or approach when working to solve a problem.
- Communicate their ideas and thinking clearly.
- Ask questions and respectfully respond to other's questions.
- Are prepared to struggle and make mistakes to make progress in their learning.

Gradual Release model Resource

Example I do, we do, you do