



Kinect Adventures Space Pop

Mathematics – Number Value, Ordinal Numbers, Measurement (Time)

Outcomes	Teaching Intentions
<p>K-6 NES1.1 Counts to 30, and orders, reads and represents numbers in the range 0 to 20. NS1.1 Counts, orders, reads and represents two- and three-digit numbers. MES1.5 Sequences events and uses everyday language to describe the duration of activities.</p> <p>7-10 Life Skills NLS.1 Recognises language that is descriptive of number. MLS.2 Recognises and uses the language of time.</p> <p>11-12 Life Skills 1.1 Demonstrates understanding of number sense 3.7 Estimates and calculates time</p>	<p>For students to:</p> <ul style="list-style-type: none"> • Recognise numerals 1 to 9. • Recognise numbers 1-999. • Recognise and compare the value of numbers. • Recognise that activities start and finish. • Predict the stage (start, middle and end) of an activity.

Links to Australian Curriculum

Early stage 1	7-10 life skills
<p>MAe-4NA: Counts to 30, and orders, reads and represents numbers in the range 0 to 20.</p> <p>MAe-1WM: Describes mathematical situations using everyday language, actions, materials and informal recordings.</p> <p>MAe-13MG: Sequences events, uses everyday language to describe the durations of events, and reads hour time on clocks.</p>	<p>MALS-6NA: reads and represents numbers</p> <p>MALS-21MG: recognises and relates time in a range of contexts</p> <p>MALS-23MG: calculates and measures time and duration in everyday contexts</p>

Content

Introduction:

1. Recognise numerals 1 to 9: Begin by using large printed numbers from 0 to 9 to teach and test student understanding of numbers from 0 to 9. Have students match and select numbers. Students also complete a **SMART Notebook** activity.
2. Recognise numbers 1-9: Model counting to 10 with class. Encourage students to count along with you or they can display the numbers as the class counts. Have students order numbers from 1 to 10 and 10 to 1. Students complete a **SMART Notebook** activity.
3. Recognise and compare the value of numbers: Provide students with concrete examples of groups of objects and compare groups to determine which group is more or less. Students identify smaller and larger numbers. Students complete a **SMART Notebook** activity.
4. Recognise that activities start and finish: Reinforce the concept that activities have a start and finish using a computer for 5 minutes with the aid of a timer, running on the spot for 10 seconds and stopping when the timer sounds, sharing an iPad for a set period of time. Discuss what the school bell means at various points throughout the day. Have students indicate the start and finish of an activity using visuals. Use consistent visual supports to indicate the start and finish of school events / activities. Students can use these visual supports throughout the day by updating the class's timetable. Teach students the sign for 'finish'.
5. Predicts the stage (start/middle/end) of an activity: Introduce the concept of counting down. Provide concrete examples e.g. microwave counting down, YouTube video of rocket blasting off, countdown apps for the iPad or Smart Notebook timers. Students using visuals can indicate during these examples the start, middle and end of an activity. Students complete a **SMART Notebook** activity.

Exploration:

1. Recognise numerals 1 to 9: Set up the Kinect and locate 'Space Pop'. Pause the game at suitable times and have students locate/identify numerals on screen. You may use a visual of the numeral to support students. For example display the printed number and have a student locate that number on the screen. Ensure each student has the opportunity to take part several times.
2. Recognise numbers 1-9: Pause the game at suitable times and have students count the total bubbles on screen. When students are playing 'Space Pop' they can count the bubbles as they pop them. Have those students watching count also. One student can keep a tally of the total amount of bubbles popped. Create a scoring table on the whiteboard. Once each student has finished they are given the opportunity to record their score on the table. Alternatively, students can select a card that indicates their score and place it on the table. Students will use these scores later.
3. Recognise that activities start and finish: Allow the students the opportunity to take part in 'Space Pop'. While the students are playing, pause the game at appropriate times to discuss the auditory and visual cues that indicate the start and finish of the game e.g. the liquid timer on the right of the screen will empty as the game progresses. Restart the game to provide further opportunities for the students to respond to the cues. Support the completion of an activity with a turn-taking board. Use language such as 'Ready, Set, Go' to indicate the start of an activity and 'Finished' to highlight that the activity has finished.
4. Predicts the stage (start, middle and end) of an activity: While two students are taking part in 'Space Pop' have the other members of the class group predict the stage of the activity. Support with a visual timeline which depicts the progress of time throughout the game. Where

appropriate, pause the game to discuss with students the current stage of the game and how much time is left. Students can use a timer to indicate the time left in an activity. Provide language support throughout e.g. “You are half-way through the game.” Count down from ten with class when ten seconds are left. Sign ‘Finish’ with the class group to indicate when a student’s turn has finished.

Conclusion:

1. Recognise numerals 0 to 9: Students complete a **SMART Notebook activity** which requires them to match, select and identify numbers found in screenshots from ‘Space Pop’.
2. Recognise numbers 0-100: Students complete a **SMART Notebook activity** that requires them to count the number of bubbles found in screenshots from ‘Space Pop’.
3. Recognise and compare the value of numbers: Once each student has had the opportunity to record a score have students compare the scores of the class group by placing their score on a chart / table or number line. Students can keep a record of their score over a number of games that can be compared from game to game. See **SMART Notebook activity** for template of table. Using concrete objects have students represent their score e.g. rods, dot cards, counters, etc.

Assessment

The student will: Recognise numerals 1 to 9.

Indicators:

- Engage with a numeral through touch
- Match a numeral from a choice of 1, 3 or 5
- Match numerals (when all numerals are presented)
- Select a numeral from a choice of 1, 3 or 5
- Select numerals (when all numerals are presented)

The student will: Recognise numbers 1-999.

Indicators:

- Match one, two and three-digit numbers
- Order numbers 1-10 in ascending and descending order
- Select their score from a choice of 1, 3 or 5
- Record their score on a table

The student will: Recognise and compare the value of numbers.

Indicators:

- Select highest score from a choice of 2, 3 or 5
- Select lowest score from a choice of 2, 3 or 5
- Order a range of scores from highest to lowest and lowest to highest

The student will: Recognise that activities start and finish.

Indicators:

- Responds to the auditory and visual cues associated with the start of an activity
- Starts the activity at the correct point
- Responds to the sign for ‘finished’
- Stops playing once the game has concluded
- Maintain attention for the duration of the activity

The student will: Predicts the stage (start/middle/end) of an activity.

Indicators:

- Use a visual timeline to determine the start of an activity or event
- Use a visual timeline to predict the middle of an activity or event
- Use a visual timeline to determine the end of an activity or event

Resources

Xbox Kinect
 Kinect Adventures
 TV/Interactive Whiteboard
 SMART Notebook Activities
 Start/Middle/Finish Visuals
 Timers
 Laminated Numerals to 9

Extension Activities / Additional Games

Extension activities can be found in the Holroyd / Mary Brooksbank Numeracy Framework

