LEARNING CONTRACT 2: Task Development

STAGE 1 INTRODUCE STUDENTS TO ANIMATION USING FLASH CS4

Goal:
The students need to be familiar with the application which will be used in this exercise before we begin the specific maths task. They will do a range of tasks designed to introduce them to the concept of animation, time lines, keyframes, tweens, drawing objects, inserting text and layers.

Process:
Begin with the concept of an animation. What is an animation? how can we make drawings appear to move(persistance of vision)? Demonstrate using Flash on the Smartboard- animate 1 simple shape moving from one side of the stage to the other. (Key terms- shape, properties, keyframe, timeline, insert keyframe, tween). Now what if we change the colour of the end keyframe, or the shape of the keyframe? Demonstrate these changes.

Task:
Students are to experiment with animating simple shapes.

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Goal:
To reinforce previous learning and introduce students to layering in Flash.

Process:
The students need to build on their basic understanding of Flash. Begin by revisiting what they learned last lesson to reinforce the key concepts. We now need to animate two shapes. Demonstrate this on the Smartboard by placing both shapes on one layer and challenging the students to animate the two shapes. They will find that they can only make them move together. To animate them independently they will need to create a new layer. Demonstrate layers using shapes.

Task:
Students create an animation demonstrating use of layers.

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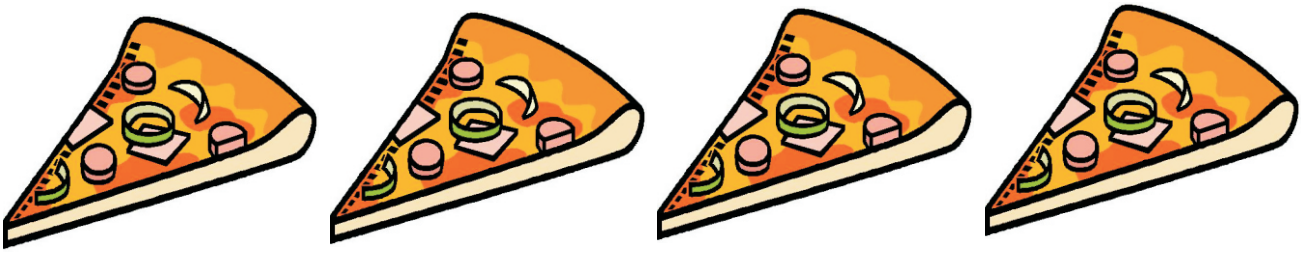
Goal:
To reinforce previous learning and introduce students to animating text in Flash.

Process:
The students need to continue build on their understanding of Flash. Challenge students to figure out how to animate the word FLASH so that each letter can jump into the stage area. They are to be given a short amount of time to discuss this in small groups. Invite them to share their ideas. (We should see a suggestion that the letters need to be on individual layers). Demonstrate inserting text, resizing and colouring text, then distribute to layers. Now we can animate each letter individually.

Task:
Give students a word list using IT vocabulary. They are then to select any of these words and animate these using layers. They may also introduce shapes to add to their animation.



STAGE 2 IDENTIFY THE SPECIFIC AREAS OF STUDENT NEED AND DEVELOP THE TASK

Goal: To identify the students' areas of need and develop a task to meet these needs.

Process:
To achieve this the students will do a test that identifies the students' levels of ability in the focus area (fractions). The test will be structured to identify basic understanding of fraction terminology, basic fraction concepts, equivalent fractions, simplification of fractions, addition of fractions and multiplication of fractions.

The exam will be marked and students allocated to one of three groups. Each group will be identified as a type of pizza. The groups will be:

Group 1 will be Meat Lovers and will concentrate on equivalent fractions and simplifying fractions,
Group 2, the Pepperoni group, will animate the addition and subtraction of fractions with different denominators,
Group 3, Hawaiian pizza, will explore the multiplication of fractions by a whole number.

A fourth group, the Supreme pizzas will be made up of students who need additional challenge. This group has no students allocated to it, students will be invited to join if they achieved at a very high standard in the test and need extension. This group will explore the multiplication of fractions by another fraction.

All animations will also explore the vocabulary of fractions. Key terms will be identified for each group and are to be included in the animations.

Task:
test

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Goal: Introduction of task to students.

Process
The students will be allocated into their groups.

The Meat Lovers will go with the HT Numeracy, who will use physical models of fractions to demonstrate and discuss the concepts of equivalent fractions and simplifying fractions, while the other two groups will come to me, to discuss the tools that will be available to assist them, including the storyboards and the pizza images that will be animated. My goal will be to get them thinking about how they can use th tools to convey their mathematical concepts to their audience.

When done, the groups will swap allowing all students access to both specialist teachers.

Task:
Plan the animation

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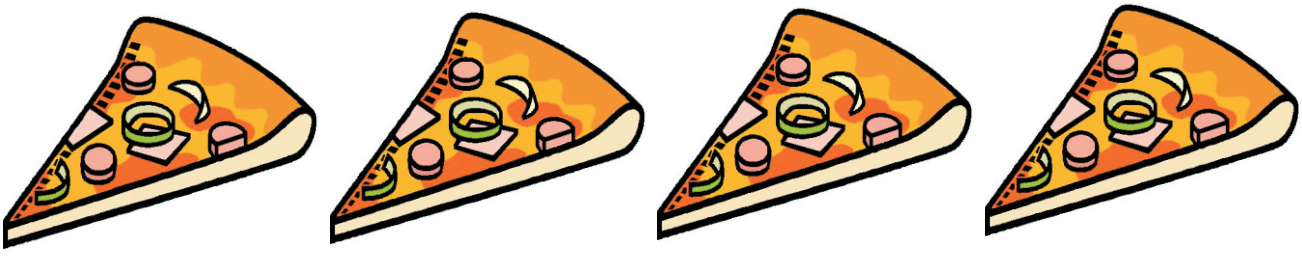

Goal:
make animation

Process: When the plan has been assessed and approved, the students will make their animation. A part of this process is problem anticipation... what will you do if, or how will you... The teacher will provide support during this process. The students will be asked to refer to their recipe for success to ensure that they are meeting their criteria.

Task: make the animation.

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STAGE 3 EVALUATION

Goal: Evaluation- Students will evaluate the quality of their work & teachers will assess the learning of the identified areas of learning for each student.

Process:
Students will complete a Quality Work Matrix which will identify the required learning for each individual, required elements in the animation, and an assessment of their personal engagement with the process. The teachers will set a second test to assess student learning.

Task:
Complete a Quality Work Matrix, and sit a second test.

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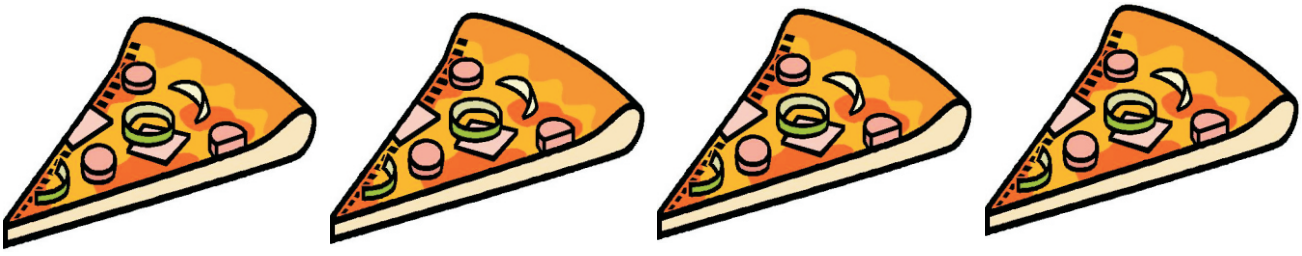
Goal:
Inspire other teachers to consider using applications for innovative ways to implement IT in their teaching.

Process:
Show student learning through their work and graphing results of both tests at a staff meeting, also show Lachlan Schools Connected Learning Coach with a view to developing a package that can be used to inspire teachers in other schools.