

## MATHEMATICS - ENTERPRISE IN EDUCATION

### LESSON PLAN

## MATHS "WHAT'S IN THE BAG?"

1. YEAR: S1/S2
2. CURRICULAR AREA TO BE ADRESSED: Mathematical vocabulary
3. LINKS WITH PUPILS' PREVIOUS LEARNING/KNOWLEDGE/EXPERIENCE:  
Vocabulary from prior learning.
4. TIMING: 1 or 2 periods  
This lesson is best used towards the end of a year when pupils have covered a lot of topics and therefore a lot of vocabulary.
5. AIM OF THE LESSONS: To work in a group to produce a mathematical version of "what's in the bag?" to test and revise mathematical vocabulary.
6. LESSON OBJECTIVES:  
Matched to ACfE capacities -
  - Develop mathematical vocabulary and in turn the core skill of communication (*successful learner*)
  - Be willing to take responsibility for and accept the consequences of your actions on the learning of your peers (*responsible citizen*)
  - Work effectively in a team (*confident individual*)
  - Actively engage in learning (*effective contributor*)
7. LEARNING OUTCOMES:  
By the end of the lessons pupils should be able to -
  - Work effectively in a team
  - Identify key mathematical vocabulary
  - Produce a mathematical version of "What's in the bag?"
  - Play the game to test and revise mathematical vocabulary.

8. DIFFERENTIATION: Pupil needs should be considered when forming groups.
9. RESOURCES: coloured paper, blank business cards or small pieces of card, sticky tape, scissors and pens.
10. STRATEGIES FOR ASSESSMENT:  
Self assessment sheet to be completed.

11. OUTLINE OF THE LESSONS:

Teacher has the role of facilitator rather than leader.

Producing the game

As a class pupils should brainstorm for the topics they are going to revise. My tip would be the more topics the better.

Pupils should then get into their groups (approximately 5) and divide the list of topics between the groups.

Pupils should then produce a vocabulary list for each of the topics their group was allocated. Pupils will probably need to use their books to ensure that they find all the key vocabulary.

Pupils should then transfer their vocabulary list onto small pieces of card. Groups that finish early could take a topic from another group.

Pupils then need to produce a "bag" to hold their cards. (An A4 piece of paper folded over and taped along the edges is ideal)

All of the vocabulary cards should be mixed up and split evenly between the five "bags". This ensures that each "bag" has a mixture of vocabulary from all the topics.

Playing the game

- One person at a time selects a card from the "bag" without showing it to their team or saying the word describes it to the others in their group. CARDS SHOULD NOT PUT THE CARD BACK IN THE "BAG".
- Passing is allowed, but passed cards must be kept separate from the cards correctly guessed.
- The group must keep count of how many cards they correctly guess in 2 minutes.

- At the end of the 2 minutes the group must look at any cards that were passed on and hopefully someone in the group can explain what the word is. If they still don't know what the word is then before the next round starts there should be a chance to show the card to the rest of the class for someone else to give an explanation.
- The "bags" are then passed on to the next group and the process starts again.
- Keep going until all groups have had 2 minutes on each "bag".
- The winning group is the group with the highest amount of correctly guessed cards.

#### Teacher role

- Circulate round the groups ensuring that all explanations are being given in a mathematical context. For example I had one pupil trying to explain the word "operation" as "if you went into hospital for heart surgery you'd be having an ...?"
- Ensure groups do look at cards they passed on and work out the meanings.

Once produced this game can be used again and again to give different pupils the opportunity to describe different vocabulary.

#### 12. WHAT MAKES THIS ENTERPRISING? :

By addressing the 4Rs of enterprise -

- **REAL**

Pupils actually have to produce the game.

- **RESPONSIBILITY**

Pupils are given ownership of their topics. If they don't produce a full vocabulary list for their topics then they are letting down the other groups.

- **ROLES**

Pupils have the opportunity to work together. In the process they will share and learn from each other developing many skills including communication and cooperation.

- **REFLECTION**

Use of formative assessment techniques allowing pupils to self assess.

#### 13. NEXT STEPS:

This activity highlights gaps in pupils' knowledge which could then be addressed.