

## Year 2 Maths Lesson Plan

## Resource Checklist

### Measuring and comparing time in a simple bar graph

#### Learning Objective & Outcomes

##### Learning Objective:

To find out how long we can make a pBuzz note last

##### Learning Outcomes:

I can create a simple bar graph from measurements of time in seconds  
I can compare information to identify who can blow the longest note

##### National Curriculum Coverage:

To measure, record and compare time in seconds  
To record length of time in a simple bar graph

- pBuzzes
- 2-3cm wide strips of coloured paper - at least 15cm long (display border works well for this)
- 3 lengths of wallpaper to fit one strip per pupil on, side by side (These need x- and y-axes drawn on to line up the strips)
- Electronic timer, pencil and scissors - 1 per pair
- 30cm rulers. 1 per pupil
- Maths exercise book or paper

## Starter

Play 'Pass the Buzz.' Each child in turn blows note C around the circle. Reverse direction around the circle and play note F as you 'Pass the Buzz' around again.

Count 1, 2, 3, 4 and ask the children to blow a note C that lasts for the count of 4. Did they all last? Who thinks they can last longer? Count 1, 2, 3, 4 and see who can last the longest.

Do you think it would make a difference if you play a lower note? Try the activity again, playing note F this time. Who lasted the longest this time?

#### Key Questions

- How do we make a higher or a lower note? (Contract or extend the slide)
- Is it easier to make a C or an F last longer, or are they both the same?
- How do we make a note last longer? (Take a deeper breath and control the air going out)

## Main

Tell the children that you want to find out who can blow the longest note on the pBuzz, and whether it makes a difference if the length of the tube you are blowing down changes. They will work in pairs to investigate! They will take it in turns to have three goes at blowing note C and note F on their pBuzz while their partner times them, and will write each result down. Then they need to look at their results and find each player's longest time for each note. They should then measure their strips of paper and cut them to size with 1 second = 1cm. Write on the strip your name and the note you were playing.

#### Differentiation:

##### *Pupils working at emerging level:*

- **Work with teacher support**

##### *Pupils working at established level:*

- **Try blowing, timing and measuring a Bflat too**

##### *Pupils exceeding expectations:*

- **Try blowing, timing and measuring all the pBuzz notes**

#### Key Questions:

- How can you make sure you are measuring the time as accurately as possible?
- How can we find the longest time out of the 3 blows?
- Who do you think will blow the longest note and why? (Size of pupil may make some difference; control/coordination may also make a difference)
- Which pBuzz position note do you think will measure as the longest time?
- Was the highest sound or the lowest sound the longest? (Highest, probably, but it will mostly be due to control of their breath)

## Plenary

Ask each child to hold their note C strip and order themselves into a line with the shortest strips first, by comparing their strip with the others. The strips can then be stuck onto the first piece of wallpaper with the shortest on the left, and the names facing outwards.

Repeat with the strips showing the remaining notes.

Place the sheets on the floor so they can be compared. Is there a difference between the length of note C and the length of note F?

### Key Questions:

- Have we found an answer to my question at the beginning of the lesson?
- Did it make any difference which note you blew?
- Was it the same person/people who blew the longest note each time?

## Assessment & Evaluation

### What to look for:

Children can measure time and length accurately  
Children can compare measurements to work out longest  
Children can correctly order measurements

### How will you know if the lesson has been successful?

Did all the children measure time & length accurately?  
Could most of them order the measured strips correctly?  
Could some of them compare the length of the pBuzz (how far the slide is extended) to the length of time blown?

## Notes for Next Time

*This space is for you to reflect on the lesson and make any notes you need.*

