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| National Curriculum areas  Cross-curricular links to Music, Literacy, Numeracy, Topic & Science | Class:  Year 2 | | Date:  October 2014 |
| Subject:  Computing | | Times of lesson:  1 hour |
| Previous experience  (Where does this lesson fit into broader medium term plans?)  Check if children have knowledge of operating computer equipment; mouse, logging into the system, they are able to use Paint programme and have thorough knowledge of operating computer safely. | | | |
| Specific learning intentions  To be able to understand what algorithms are  To be able to give instructions using algorithms  To record sounds on Scratch program by using musical instruments  To understand how to record and apply basic functions to record music on Scratch | | Success criteria:  I know what algorithm means  I know how to give instructions using algorithms  I know how to record music on Scratch program  I know how to use function on Scratch program to record music on Scratch program | |
| Relevant information from previous assessments:  (Data that has informed your planning)  Year 1  Encouraged to link what they know about instructions, where do they see algorithms (instructions) experiences;  Discuss if they have used computer before, what did they do? Ask them questions about what computer games they have played before?  Participate in discussion about what they already know, encourage taking turns and listening to what others say Explain clearly to them what they will be learning in the lesson introduce the concept of algorithms | | | |
| Subject knowledge (SK)  (Attach necessary SK sheets or key points that will require special teaching attention)  Technical vocabulary  (subject specific words and phrases, inc. any translated words for early bilingual learners and grammatical terminology)  Technical Vocabulary:  Algorithm  Debug  Mouse  Function  Sprite  Sound  Files  Download/upload  Save  Play, record, stop  When clicked  Repeat  Switch | | | |

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| **LESSON PROGRESSION AND SEQUENCE KEY QUESTIONS** | | | |
| Approx. timings  15 mins | Introduction and context  Share the PowerPoint slides with the children. Tell them that they will be create their own Scratch program.  Ask children what they see, hear and if they can answer the question.  Set behaviour expectations - everyone will be told to listen carefully and that ‘hands on head’ means silence. | Can you tell me what sound do you hear?  Which instrument is making that sound? Talk to your partner.  (use lollipop sticks to select a child)  Have they played an instrument before?  Would they like to? | |
| 30 mins | Development phases  Introduce algorithms by sharing with the children key words that they will be using. Ensure children know that they will be using them to give commands to their sprite. Use role play and visual aids. Address any meaning of words children are unsure of. Get children to give instructions to each other and get them to use algorithms used in Scratch program.  Tell children they are going to record their music on a Scratch file and upload the music. Ensure they use the equipment safely. Get children to choose their musical instrument with a partner.  Before recording music ask children whether they would like to sound out the name of the instrument (checking beats/syllables). Encourage them to use their knowledge of sounds from Literacy lesson. | Ask them what is algorithms?  Which command would they use first? (ask them to hold up the cue card/visual aid)  Have they used a musical instrument before?  Ask them why they chose that particular instrument?  How many syllables in the name of their instrument? | |
| 10 mins | Plenary  Bring children together. Ask them to tell everyone what they know about algorithms. Check for any miscues.  Tell children the games they play at home are programmed with algorithms.  Tell them next lesson they will use the sound, they recorded to start to create their own scratch program – game ‘Guess what instrument?’  Get children to talk to their partner and tell them one thing they learnt and one they like to learn next time. | Ask them what thing they found tricky?  What did they enjoy the most?  What would they do differently, next time?  Ask if one of them would like to use their instrument to show how many syllables there are in the name of their instrument?  Who would they like to make the game for?  Ask children to show with their thumbs if they enjoyed learning today? | |
| Differentiation  *(inc. ways to support lower attainers, pupils with SEND, more able pupils and bilingual learners)*  Ask the children to just make music using their musical instrument. Give them few commands when playing role play with algorithms. Use visual cues and key word: Algorithms, switch, sprite, when clicked, repeat.  Behaviour for Learning strategies:  Say, ‘One, two, three’ children say ‘Eyes on me!’  Use of lollipop sticks, with children’s name on them. | | | |
| Assessment of learning intentions (focus areas):   * Who? First lesson, so carefully assess them. Use a grid tick list to monitor who knows what – key word used for algorithms. * What? * How? (Will additional adults support with assessment?) Monitor and support the children with key words. Ensure the child has clear understanding of key words. | | | ICT: How will it support and enhance learning?  NC- Computing  Create a simple program.  Use technical vocabulary to give basic algorithms.  Use technology to create, organise store simple file.  Manipulate programs to create/debug any issues. |
| Ways forward:  (How will this lesson inform subsequent lessons? Homework if applicable) ask them to make a list of all the computer games they play at home or find out which things will use algorithms. | | | Resources and adult support:  Who? Their role at different phases?  Visual cue display cards. Musical instruments.  TA to support and copy exactly the same vocab as the teacher. |