|  | **Autumn** | **Spring** | **Summer** |
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| **Generic Skills** | Power on/offUse of Keyboard (an input)- backspace, return, space bar, number keys, letter keys |
| **Key Vocabulary** | Computer ScienceAlgorithm – a sequence of instructions for a ‘Robot’ / computer to followInformation Technology Computer, device, keyboard, screen, mouse, cursor, open, close, saveDigital LiteracyInternet, world wide web |
| **Computer Science** | To work towards algorithmic thinking: Provide pupils with a broad range ofsequencing activities e.g. ordering everyday events, ordering story events. Use pictures, jigsaws and on-line activities that focus on sequencing. (Examples can be found in the computing folder on the server).To work towards programming: Free Play with Bee Bots. Allow pupils opportunities to explore the Bee Bots for themselves. Allow for pupils to develop their understanding of: What does it do? How does it do that? What else does it do? Initially start with just the Bee Bot and move onto providing grids/areas with pictures/objects forpupils to attempt to travel around. | A useful web link to aid explanations of key vocabulary.<http://www.bbc.co.uk/guides/z3whpv4> Develop the idea that Robots(computers) need precise instruction (algorithms) to achieve a goal. Create roles as a ‘Robot’ and ‘Programmer’ (coloured PE bibs could be used to distinguish roles).Set up an obstacle course in the outside area for the ‘Programmer’ to control the ‘Robot’ around. Initially this could be done via verbal instruction working towards developing precise and unambiguous instructions e.g. forward 4 steps. Extend pupils by providing direction cards (on server) for the ‘Programmer’ to create and algorithm for the ‘Robot’ to follow.Bee Bots development: Begin to introduce the idea of pre creating an algorithm in order to reach a specific point. Command cards (on server) should be given to pupils to support the creation of their algorithm. | Use the role play area for pupils to act out being ‘Programmers’ and Robot’s (again coloured bibs could be used). The ‘Programmer’ has to verbally instruct the ‘Robot’ to achieve a given goal e.g. make a cup of tea, put baby to bed, post the letter. Through this type of activity pupils have to give precise instructions. The teacher could model, being pedantic in responses, in order to highlight the need for unambiguous instructions. E.g. ‘Pick up cup’ teacher responds as ‘Robot’ not being able to compute as the colour of the cup wasn’t given. |
| **Information Technology** | Mouse skills development via on screen games (e.g. busythings.co.uk or TES i-board)Keyboard development using the arrow keys. If you Google search for pre-school games that use arrow keys, you’ll find loads, e.g. www.happyclicks.netTeach pupils how to use a digital camera/device for a specific purpose e.g. to record a Lego creation Whole class use of the internet. Take time to talk to pupils about information that can be found within the World Wide Web. Children should experience activities such as listening to stories and finding information.Participate in a green screen video (nativity?) so they can see the possibilities. | Mouse skills development via an art package (e.g. drawing apps on ipads).Independent use of digital cameras/device for a specific purpose.Whole class use of the internet. Taking time to talk to pupils about information that can be found within the World Wide Web. Children should experience activities such as listening to stories and finding information.Watch the short video clip: What is the internet? <http://www.bbc.co.uk/guides/zgwnsbk>  | Develop the use of digital cameras/device for a specific purpose e.g. To record the growth and development of: life cycles- butterfly, tadpole, chick, seed.Make a green screen video with adult supervision, where children decide on their own background and content. |
| **Digital Literacy** | Through role play, allow opportunities for pupils to mimic the use of different types of technology used at home and in the work place. | Discuss and model the importance of asking for help from an adult when on the internet.(Example Lesson plans on the server, e.g. Smarty the penguin)Where appropriate, provide opportunity for independent use of a range of technologies focusing on developing an understanding of safe and responsible use. | Provide opportunities for pupils to share their use of technology outside of school. Pupils (parents) could be asked to email photographs of pupils using a range technology at home. |