design topics for students

topic one:design a bird table

curriculum strands:

Technology:
- **Technological Capability**
- **Technology & Society**

Science:
- **Nature and its Relationship to Technology**
- **Making Sense of the Living World**

Links to Arts Maths and English
Levels 1-4

- Go on an observational walk around the school noting the type of birds and finding where most of the bird population is to be found in the school enviroment.
- Can the students specualate as to why more birds may be found in certain parts of the school environment?
- Using this information, decide on a suitable place to build a bird table. (*There will have to be a suitable cover nearby forthe pupil observers to watch the birds which visit the table)*
- Have groups or individuals make sketch plans of their proposed bird table.
- Have them consider how will the table be made attractive to birds.
- Discuss and evaluate the designs, choose the most suitable and and build the table.
- Decide which food will be placed on the table. Try many different foods and note which foods are the most popular with all birds or certain species of birds.
- Keep a careful note of the numbers of various types of birds that come to the table.
- Devise a table or graph to display your results. Arrange a roster. for regular observations.
- Are there any seasonal differences in the types of birds visiting the table. Are there any differences in times when certain birds visit the table? Are there any regular visitors? What activities take place at the table?
- If you change the design of the table to include perches or hides, does the behaviour of the table visitors change?

evaluation:

Technology Evaluation
- **were students able to keep a running diary and photos of the design process, construction and the bird table in action?**
- **can the students make informed forecasts on effects of changes and additions to the bird table**

Science Evaluation
- **can students identify the relationships between the birds and different designs ?**
- **can the students demonstrate a growing knowledge of bird species and behaviour**

topic two:design a classroom

curriculum strands:

Technology:
- **Technological Capability**
- **Technology & Society**

Social Studies:
- **Place and Environment**

Links to Arts Maths and English
Levels 2-4

- Initiate a class discussion based on the childrens' ideas of how they would design their classroom if they had chance.
- Start with the existing shape of the classroom and the furniture the room all ready has.
- Have them consider the activities that take place in the room and how these can be best catered for. Perhaps a list of current class room activities would be a good starting point noting the type of furniture and/or space that is most suitable for the activity.
- Have groups or individuals make floor plans of the re-designed room.
- Try out the best design for a week and evaluate the results with the class. Now lift the restrictions and have the children design the **classroom of the future.** Have he children consider the following
  - the shape of the classroom,
  - visual display areas,
  - areas for specific activities such as art and music,
  - practical and visually attractive furniture for normal activities
  - furniture for specialised work such as computers,
  - suitable heights and shapes of chairs and tables,
  - use of different materials for strength or visual effect,
  - colours of walls, carpets and furniture,
  - areas for sitting or leaning on furniture, cushions, areas for personal research or listening to music,
  - adequate lighting, research areas,
  - attractive areas outside the classroom . . .
- The aim is to design a visually attractive and practical working environment. Have the children draw, paint, or make a model of their ideas to present to the class.

evaluation:

Scocial Studies Evaluation
- **can the students explain why a well designed classroom is important?**
- **can the students reconcile the many different views that classmates have about the classroom environment?**

Technology Evaluation
- **can the students assess the design specifications in relationship to the identified needs?**