LESSON PLAN 4: PRACTICAL WORK/INVESTIGATING

RESOURCES AVAILABLE: PowerPoint

Classroom Time: 1-4 hours

Date:

Subject: SESE

Strand:

Class

Scientific Skills: Observing, Investigating and Experimenting, Estimating and Measuring, Making

Learning Objectives	Learning Activities	Resources
Learn skills associated with construction, measurement, estimating & observing. Learn to work as a member of a team. Learn to record data in tables	**Practical Work (1-4 hours over several sessions)** How you proceed in this section is highly dependent on the activities that you have chosen/designed. You need to allow time for groups to fulfill these tasks and collect the information and data they need to answer your question. **What you should expect:** **Be prepared for the question to evolve.** For example, your class may have asked; "Which washing liquid is the best at washing my clothes?" As you start to carry out a fair test that compares the performance of different washing liquids your class may realise that measuring "the best" needs more defining. The question might shift to "Which washing liquid is the best at removing gravy, ketchup and curry stains?". It is also possible that as the children look deeper into a subject they may find a more interesting or similar question. **Be prepared to encounter practical problems** as the experiments you have designed are carried out. ESB SCIENCE BLAST would encourage you to embrace this as a learning and problem-solving opportunity. **This is a normal part of the scientific process.** Finding solutions will greatly enhance your confidence and satisfaction as investigators. Remember that ESB SCIENCE BLAST also wants your class to communicate about the problems they encountered as well as their successes. It is very important that you **monitor how children are keeping a record of their data**. Encourage them to make use of clearly labelled tables (if relevant) and to look after them carefully. **Encourage children to repeat their experiments and their measurements**. This is a very important approach in good scientific investigations. This will give them more opportunity to talk about how reliable the outcome was. They could even challenge another class to try an experiment to see that they get the same result. Encourage older classes to calculate the average of repeat measurements.	 Step 2
Learn to construct graphs, pie charts, bar charts Learn to present information visually	**Preparation of Data Analysis: (15-30 mins)** Have an initial discussion with your class about how information and measurements can best be represented and communicated. **There may be opportunities to create line graphs, bar charts or pie charts**. Not all of the information you gather will lead to the creation of a graph or chart. Try to **be creative** with diagrams and written work. Making videos, animations or audio recordings may be useful in many cases.	Slide 6 PowerPoint  Step 4