

The Science Fair Extravaganza (S.T.E.M.)

Grade Level(s): Ninth, Tenth, Eleventh, and Twelfth grades

Overview	This is a technology (ICT) lesson where students will collaborate in teams of 4 to discuss possible ideas for projects for the Science Fair Extravaganza on Earth and Space Science.
Objective	<p>With students who are planning for a school science fair, the teacher need to instruct the students to discuss what they want to happen at the fair. They need to discuss and share what projects could be displayed.</p> <p>The purpose of this lesson is to decide what they want (projects) in their Science Fair. This would be a first lesson, which would be developed further by actually planning and making the resources for the science fair. (I would have them working in the same team of 4 to develop co-operative learning skills. Each pupil will be given a role, which would be rotated on a lesson basis.)</p>
Standards	<p>H.7.2 Proficient: Create works of art that use specific principles to solve visual problems. Advanced: Create works that use specific elements, principles, and functions to solve problems and communicate ideas.</p> <p>ES.2.5 Explain that the idea, that the Earth might be vastly older than most people believed, made little headway in science until the work of Lyell and Hutton. (Core Standard)</p> <p>ES.1.1 Understand and discuss the nebular theory concerning the formation of solar systems. Include in the discussion the roles of the planetesimals and protoplanets. (Core Standard)</p>
Materials	<ul style="list-style-type: none"> • Paper • Pens • Computers • Internet access • Access to 99Chats http://www.99chats.com/ • Any other item that the students feel they need for their poster.
Procedure	<ul style="list-style-type: none"> • The teacher needs to instruct the students to begin the lesson by discussing the idea of a Science Fair Extravaganza. What sort of things should be displayed? Who should take part? What could happen at it? Etc.(15 min) • Allow the pupil's access to a set up chat room (99Chats) to discuss and post their ideas for the science fair. (Approximately 15 minutes or so to complete this). • The teacher should split the class into groups of four. They are to discuss the ideas they felt were particularly good. They will then pick 3-5 ideas that they would like to do.(10 min) • The teacher should inform students that they should create a poster that displays their chosen ideas. They will say the activity, what will happen and who will run it. (15 min) • The instructor should have students share their ideas with the class. (5 min)
Evaluation	The pupils will all come up with their own ideas. This will probably based on experience or through an interest to find out how to do something. The evaluation is formative. Pupils share the ideas with the class, with pupils giving positive

feedback about their ideas as well as constructive criticism.

As mentioned above, this would be a first lesson of many. Pupils can use 99Chats as part of their group to help develop their ideas. (Safe chat rooms to be set up in advance by the teacher so each group has a chat room). However, it may be more productive for pupils to use paper and pens rather than type. This would encourage social interaction, rather than talking through a computer.