

# Britannica Lesson Plan: Science Giants



**Subject:** Science, English  
(History, Art and Design)

**Date:**

**Length of Session:**  
2 days at 45 minutes each

**Prior Learning:** Students should have a basic understand of how to use Britannica School, including logging in and using the Images and Videos and Related tabs within an article. No other prior learning necessary.

**Learning Objective:** Students will research different scientists to understand they come from a wide range of backgrounds and pursue many different goals and interests.

**Success Criteria:** A form of summative assessment could be to create a classroom mobile, with each student creating a piece to hang that represents the individual he or she has researched. Assessment criteria might include accuracy of representation and neatness and clarity of design.

**Curriculum standards:**

**Resources:** Students will need computers with internet connection, blank index cards, a single hole punch, a wire frame (could be made out of a metal hanger) and any necessary art supplies: coloured pencils, crayons, paste and scissors.

**Vocabulary:**

Talent  
Pasteurise  
Ethology  
Double helix  
Radioactivity

**Organisation:** This research would work individually as well as in pairs, depending on the needs of students and the technology available to them.

**Support Staff**

**Activities:**

Support staff could assist less able students or float around the room to work one-on-one with students as necessary.

**View this lesson plan in Britannica School here:**  
<http://school.eb.co.uk/levels/intermediate/lessons/view/1592>

## Britannica School resources/links:

**Charles Darwin:** <http://school.eb.co.uk/levels/intermediate/article/273921>

**Louise Pasteur:** <http://school.eb.co.uk/levels/intermediate/article/276303>

**Jane Goodall:** <http://school.eb.co.uk/levels/intermediate/article/324848>

**Albert Einstein:** <http://school.eb.co.uk/levels/intermediate/article/274135>

**Stephen Hawking:** <http://school.eb.co.uk/levels/intermediate/article/274795>

**Isaac Newton:** <http://school.eb.co.uk/levels/intermediate/article/276067>

**Rosalind Franklin:** <http://school.eb.co.uk/levels/intermediate/article/274418>

**Galileo:** <http://school.eb.co.uk/levels/intermediate/article/274476>

**Alexander Fleming:** <http://school.eb.co.uk/levels/intermediate/article/274340>

**Edwin Powell Hubble:** <http://school.eb.co.uk/levels/intermediate/article/311750>

**Marie Curie:** <http://school.eb.co.uk/levels/intermediate/article/320778>

**Gregor Mendel:** <http://school.eb.co.uk/levels/intermediate/article/275785>

**B.F. Skinner:** <http://school.eb.co.uk/levels/intermediate/article/277083>

**Socrates:** <http://school.eb.co.uk/levels/intermediate/article/277120>

**Alexander Graham Bell:** <http://school.eb.co.uk/levels/intermediate/article/273160>

Time:	Teacher's Activity:	Students' Activities:
<b>Day 1</b>		
<b>10 minutes</b>	Put the word "talent" on the screen and let students form groups to discuss a definition of this word.	Put the word "talent" on the screen and let students form groups to discuss a definition of this word.
<b>5 minutes</b>	Write the following question on an interactive whiteboard or a blackboard: "What skills and interests do I have that could help me become a good scientist?"	Free write for five minutes in response to this question (Encourage students to take whatever form they would like, including sentences, lists, mind maps.)
<b>15 minutes</b>	Facilitate discussion of scientific talents by creating a list on the board of fields of science (you may need to provide these depending on the level of the class) and what talents or interests a scientist in that field might have.	Students should add known science fields to the list and also discuss traits that these scientists might have.
<b>10 minutes</b>	Help students as necessary.	Students should draw a Venn diagram. On one side should be their own personal traits/interests, the other, traits/interests of scientists. The overlap should include talents they possess that would help these students to become scientists.
<b>5 minutes</b>	Pass out sticky notes.	Students will choose one area of science that they would like to further research, write this on the sticky note and stick the note on the board or a wall, before the end of class.

Time:	Teacher's Activity:	Students' Activities:
<b>Day 2</b>		
30 minutes	Share the link ( <a href="http://eb.com/2130">http://eb.com/2130</a> ) with students or use the list above. Depending on the responses written on the sticky notes in the previous lesson, you may want to add or exclude some of the above scientists. Help students with their research as necessary.	Ask students to individually (or in small groups if there are not enough PCs) look at the listing of suggested scientists provided. Students will need to read the article as well as look at related journals, images and videos and websites (all of this information can be found by performing a Britannica search using the scientist's name). If students would like to pick another scientist represented in Britannica, this is an option too.
15 minutes	Hand out blank index cards with a hole punched through one of the short ends to all of the students. Explain to them that they will be creating a class mobile about their chosen scientist. Collect cards at the end to display.	Students should write down a few facts about the scientist on one side of the index card (such as what type of scientist he or she is/was and what made him or her famous). On the other side, they should write down what talents they think the scientist might have.

**Plenary:** Plenary: Write three general “interview” questions up on the board. Ask students to answer them as if they were applying for a job as the scientist they researched (or someone in the same field).

Example questions:

- What are your strengths?
- What are your goals?
- Where do you see yourself in five years' time?
- How might you deal with a difficult scenario in your work?
- Tell me about an achievement of which you are proud.
- Why do you want this job?
- Describe a situation in which you solved a problem.
- Why did you choose this career path?

**Differentiation:** Allow students to work in groups if you have students who might struggle with the Britannica information. As these articles may be challenging and cover new topics, remind students of the tools within Britannica School that can support them (such as the read aloud feature and the double-click dictionary, for instance). For some students, reading the Foundation level article for some of the selections may be best.

**Extension Activity:** Ask students to further research a scientific field and create an additional mobile card to represent this (for example, a card with animals on it for zoology). Additionally, an alternative should be suggested.

**Assessment Opportunities:** Checking students' Venn diagrams to see that they are choosing talents that might be aligned with scientific study would be a great form of formative assessment, while marking the finished mobile pieces could be used for summative assessment. Students could be given clear criteria, such as listing at least three facts and three personality traits, and design and neatness could be included in the assessment criteria.