



Master Lesson Plan

For

Like Father Like Daughter

Board	Standard	Subject	Chapter	Language	Reference Link	Creational
CBSE	STD V	EVS	Like Father Like Daughter	English	Like Father, Like Daughter	2020-11

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Like Father Like Daughter

1. MS_Objectives_ Like Father, like daughter

Students will be able to..

- explore the reasons for similar characteristics within family
- explain the concept of acquired and inherited traits through examples.
- gain information on acquired characteristics
- develop a healthy lifestyle to reduce the intensity of some acquired health problems.
- explain that Polio is not an acquired disease
- categorise the acquired and inherited traits through an activity
- differentiate between what trait is acquired and what is inherited
- summarise all the major concepts of the chapter

Time to teach	Asset Type	Theme	SubTheme
2 Minutes	Main Script	Heredity and Evolution	Acquired and inherited traits inherited traits

2. IQ_Acquired characteristics and Environment

[Notes to the teacher - Teacher may enable the students to think and come out with as many answers as possible before giving out the right answer/ answers]

1. Dear children, can you tell me which of your family members do you resemble (look like)?



Suggested Answer: Students will give different answers like they resemble their father, mother, grandparents etc. which shows that there is a transfer of characteristics from one generation to the other.

2. Ramesh is a professional athlete and is a good basketball player. From where did he acquire these characteristics?

Suggested Answer: Ramesh learned it from his environment. It is a learned behaviour.

3. Have you seen that in some families, some people are fat and some are very lean?

Suggested Answer: It is because of heredity, as we receive certain characteristics from our family members like height, weight and even some diseases such as hemophilia where in the blood fails to clot. Being fat can also be due to lack of exercise or no restrictions on food.

4. It is a common observation in children, that if parents or family members have weak eye sight, this problem persists in their children too. Why?

Suggested Answer: It is so because this trait or problem is carried through inherited characteristics from parents to

5.Name two traits that you have acquired through your life?

Suggested Answer: Answers may vary - Knowledge, body muscles, painting, singing, swimming, dancing, etc.

6.Explain environmental trait in your own words.

Suggested Answer: Environmental traits are traits that we choose or learn, or that are influenced by the place you live.

7. A woman is an excellent singer. Why are her children likely to become good singers? Suggested

Answer: They will learn to sing by watching and hearing.

Image source:

<https://pixabay.com/photos/family-international-family-day-3400033/>

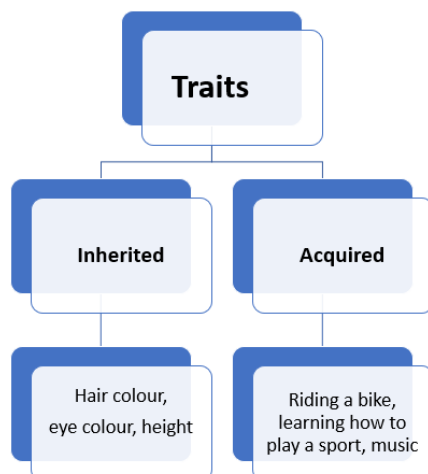
Time to teach	Asset Type	Theme	SubTheme
10Minutes	Inquisitive Questions	Heredityand Evolution	Acquired and inherited traits inherited traits

3. MS_Inherited and acquired traits

Family is a group of persons closely related by blood, consisting of parents, children and relatives, united by bonds of love and affection and sharing common social activities.



We resemble our parents and grandparents in many ways. Some of the characteristics or qualities of our parents and grandparents are passed on from one generation to the next generation.



Traits are qualities, features or other things that distinguish the organism.

Inherited traits:

Inherited traits are those characteristics which are passed on to us from our parents and grandparents. A trait may seem to skip a generation or even two or three, but if a trait shows up it must have been present in an ancestor.

For example, if both of your parents have green eyes, you might inherit the trait for green eyes from them. Or if your mom has freckles (appearance of black spots on the skin), you might have freckles too because you inherited the trait for freckles.

Examples of inherited traits include hair colour, eye colour, dimples in cheeks, voice, muscle structure, bone structure, and even features like the shape of a nose. Curly or straight hair, long or short legs, even how you might smile or laugh. Many of these things are passed from one generation to the next in a family.

Just have a look, these children are similar to their brothers, sisters or their parents.



All the cousins of the extended family having similar looks.



Twins -Identical and Non - identical



Acquired traits or environmental trait

Acquired traits are those traits that are not inherited; one resulting from the effects of the environment.

Environmental traits are influenced by your environment. You can learn them or control them. You can't inherit your uncle's knowledge, skills, ideas or memories. An acquired trait is a characteristic that a human being gets during a lifetime.

For examples: Your favourite music, being a good basketball player, better at using computer, and the language you speak are environmental traits because you choose to learn them. They are influenced by the place you live in. Many acquired traits are learned behaviours. A learned behaviour is a skill that we get after we are born.

Image source:

<https://pixabay.com/vectors/family-man-woman-boy-girl-312018/>

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Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Heredity and Evolution	Acquired and inherited traits inherited traits

4. IA_Our behaviour and acquired characteristics

DO YOU KNOW THESE INTERESTING FACTS?

- 1- Women's hair is about half the diameter of men's hair.
- 2- Laughing lowers levels of stress. Children laugh more than adults.
- 3- People believe that the people who are intelligent have more zinc and copper in their hair. 4-

The brain is much more active at night than during the day.

Do inherited characteristics control all the human behaviours like laughing, intelligence, activity of brain?

NO. Many other factors are also responsible for these behaviours.

Do you know what these are?

Perception -In order to interact safely with the world, we must correctly understand it and the dangers it holds. It is an acquired trait

Memory -Our capacity for remembering things. Memory is an acquired trait. Social norms or code of behaviour in a particular community / society.

These impact both positively and negatively. Social norms are laid by people and can't be considered as a trait.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Interesting Asides	Heredity and Evolution	Acquired and inherited traits inherited traits

5. DD_Healthy lifestyle

DISEASES DUE TO LIFESTYLE



Eating junk foods, tension in every work, sleeping late night-Are these the proper way of maintaining our lifestyle????

NO....

We can avoid many diseases by changing our lifestyle a little bit.

Some most important genetically inherited problems caused by lifestyle are diabetes, hypertension, and blood pressure

Students, if you have your grandfather or grandmother suffering from diabetes or hypertension, you can tell your parents to be careful by practising the following rules.

DIABETES

Can be prevented and controlled by following some discipline given below.

- By taking low fat and high fibre food such as fruits, grains and vegetables. Say “NO” to fast food and fasting
- Daily Exercise.



HYPERTENSION (high blood pressure)-

- By adding low salt to food and less spices to diet.
- By increasing physical activity i.e. running, playing outdoor games. Living in a healthy and stress-free environment.
- Practising daily exercise and yoga.

Image source:

<https://www.needpix.com/photo/1768902/eatables-junk-food-snack-potato-food-salty-fried-eatable-fast-food>

<https://pxhere.com/en/photo/1444029>

[Sleeping: SSSVV Gallery \(Keyword: Brother and Sister\)](#)

<https://pixabay.com/vectors/exercise-yoga-poses-positions-35935/>

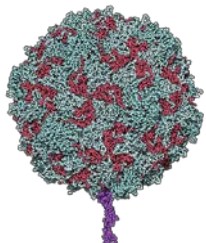
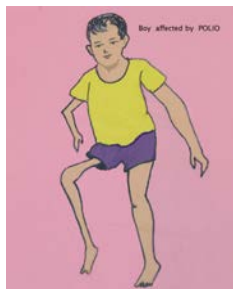
Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Day-to-day Relevance	Heredity and Evolution	Acquired and inherited traits inherited traits

6. MS_Not from parents!

Polio is not passed from parents to children.

-Polio was perhaps the most feared disease on the planet causing paralysis and death for most of the human history.

-The disease is caused by poliovirus which is highly sustainable to medicines. So this disease spread quickly all over the globe causing panic situation.

**Normal child****Polio Child**

In 1961 Dr. Albert Sabin developed a “live” oral polio vaccine (OPV), which rapidly became the vaccine of choice for most national immunisation programmes globally.

Efforts were made by World Health Organisation (WHO), UNICEF and Rotary foundation, starting from 1988 to eradicate this disease. Towards 1990 it was very much prevalent in India that left many dead or paralysed.



In 1994 Government of India launched the Pulse Polio campaign to eliminate Polio, children below 5 years of age all over India received the polio vaccine on the same day every year.

In India, which was the most difficult place to end polio, children below 5 years of age all over India received polio vaccine on the same day every year.

Polio FREE

India was declared Polio free in February 2012 as no poliovirus has been found in India since 13 January, 2011.

image source:

https://commons.wikimedia.org/wiki/File:Poliovirus_binding_receptor_1DGL.png
 Polio Child: SSSVV Gallery (Keyword: Disease)
<https://pixabay.com/photos/person-human-child-girl-toboggan-1145525/>
 Unicef logo: CC: <https://pixabay.com/vectors/unicef-logo-organization-303450/>
<https://pixabay.com/illustrations/who-world-health-organization-4984801/>
<https://www.flickr.com/photos/cdcglobal/8190819087/in/album-72157632028304026/> (Attribution: CDC Global)

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Heredity and Evolution	Acquired and inherited traits inherited traits

7. SA_An inventory of my traits

Aim: To categorise the acquired and inherited traits.

Materials required: Pens/ An inventory of my traits survey sheet/ Notebooks

Setting for the activity: Whole class

Activity I

Procedure:

- Students will have to find someone who shows the traits mentioned in the survey sheet below. Students
- have to note down their observations in their notebooks

Observation:

An Inventory of My Traits – Survey

Sl. No	Trait	Yes	No
1.	I have detached earlobes		
2.	I can roll my tongue		
3.	I have dimples		
4.	I am right – handed		
5.	I have freckles(marks on face)		
6.	I have a cleft chin(a dimple like on the chin)		
7.	I cross my left thumb over my right when I clasp my hands together		
8.	I can see the colours red and green		
9.	The hairline on my forehead is straight		
10.	I have red hair		
I am:			

Conclusion: This activity will help the students to see the prevalence of certain traits by observing those traits in their classmates.

Activity II Procedure:

- The teacher makes two columns on the board.
- First column is From parents and the second column is Not from parents.
- Teacher provides the class with a few traits and asks the students to identify the traits as from parents or not from parents.

Observation:

Trait	From parents	Not from parents	Both
Hair colour			
Height			
Weight			
Health			
Dry skin			
Length of the hair			
Colour of the skin			
Shape of the eyes			

Trait	From parents	Not from parents	Both
Hair colour	Yes		
Height			Yes
Weight			Yes
Health		Yes	
Dry skin			Yes
Length of the hair	Yes		
Colour of the skin			Yes
Shape of the eyes	Yes		

Conclusion: This activity will help to categorise the acquired and inherited traits.

Instructions to the teacher:

- Discipline should be maintained during the activity.

Time to teach	Asset Type	Theme	SubTheme
20Minutes	Suggested Activity	Heredityand Evolution	Acquired and inherited traits inherited traits

8. VC_Know the facts before coming to a conclusion

“We acquire certain traits at birth from our parents. Some things we learn from our environment. “

There should be an awareness about what trait is inherited and what is acquired from the environment. Many a time people have such misconceptions about some diseases. They think these diseases are inherited. These misconceptions can cause danger not only to one’s self but also to others.

For example, polio is caused by a virus and is not inherited. It is not that if any of the parents have polio, their child will also have it.

Let us look at this story.

Once upon a time there lived a man called Shyam in a village. He had a son called Rahul. When Shyam was 6 years old, he was affected by polio and after that he couldn’t walk properly.

He always wanted to play cricket but couldn’t do so because of polio and he shared this with his son. He was also scared that Rahul would also get this disease some day because he was suffering from it. Rahul was very brilliant, was an all-rounder and used to participate in all the activities held in his school.

One day when Rahul reached the school he saw that all the children were very excited. He asked one of his friends and was told that a national level cricket camp was to be organised in their school for a week.

All the boys who were interested in playing cricket took part in that camp but Rahul didn’t. His teacher noticed this and she asked him, then he started crying and said, “My father can’t even walk properly as he is affected by polio. So he says I will also have it in the coming years and that’s why I am not taking part.”

Then the teacher explained to him the facts related to polio that it is not an inherited disease. It is not necessary that if parents have polio then their children will also suffer from it. In fact, it happens due to the virus, poliomyelitis.

The teacher thus opened his eyes by creating awareness about inherited conditions and traits and told him that we should always know the facts before coming to a conclusion.

Time to teach	Value Type	Value Sub Type	Value Attribute
5 Minutes	Truth		Stories

9. QA_Like Father, like daughter

I .Multiple choice questions

1. Polio is caused by _____.

- a) Bacteria b) Virus c) Fungi d) Animals

2. Gregor Mendel conducted experiments with _____

- a) Peas b) Garlic c) Onion d) Rice

3. Saroja and Suvasini are _____.

- a) Cousins b) Friends c) Twins d) Colleagues

4. _____ will be affected by polio

- a) Hand b) Shoulder c) Nose d) Legs

Suggested Answer: 1.Virus 2. Peas 3. Twins 4.Legs

II. Say whether True or False

- Identical twins look exactly the same.
- An adopted child looks like the people who bring him up.
- Pulse Polio campaign was started in the year 2001.
- Nilima's eldest nani's son is Nilima's brother.
- Polio drops are given to all age groups.

Suggested Answer:

- True
- False. An adopted child does not look like the people who bring him up.
- False. Polio campaign was started in the year 1995.
- False. Nilima's eldest nani's son is Nilima's uncle.
- False. Polio drops are given to children under the age of 5.

III. Tick as from parents or not from parents

Colour of the petal	✓	
How tall you are	✓	
Sumukh can roll his tongue	✓	
Anurag has a scar on his head that Swaroop gave him		✓
Suvrata has dimples on her face	✓	
Mohan has a good muscle tone		✓

Suggested Answers:

Colour of the petal		
How tall you are		
Sumukh can roll his tongue		
Anurag has a scar on his head that Swaroop gave him		
Suvrata has dimples on her face		
Mohan has a good muscle tone		

IV. Answer the following questions:**1. What is Polio? How can it be prevented?**

Suggested Answer: Polio is a very infectious diseases. It is caused by poliovirus. It can be prevented by vaccination.

2. What is a trait?

Suggested Answer: Trait is a characteristic passed down from parent to children.

3. Name any two characteristics that are passed from parents to the child.

Suggested Answer:

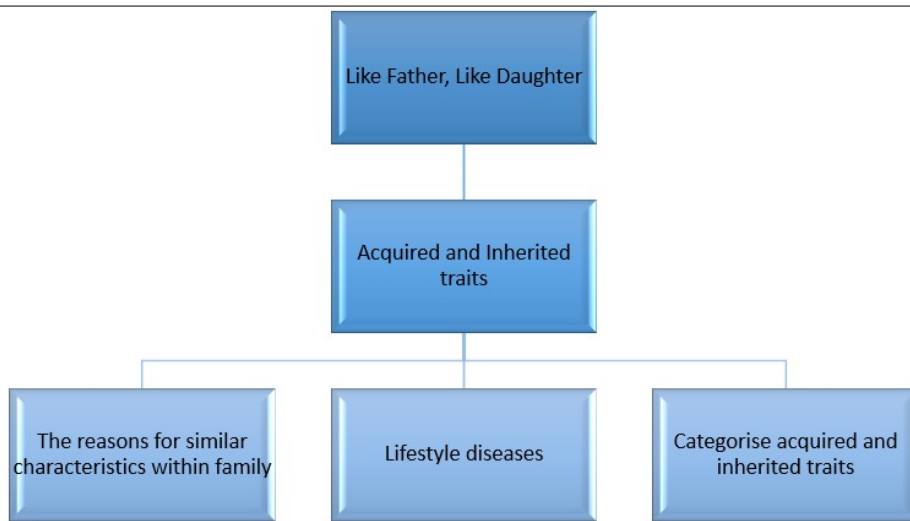
- Colour of eyes
- Height

4. Why do Saroja and Suvasini behave differently inspite of being identical twins?

Suggested Answer: Saroja and Suvasini are brought up in different environments so they behave differently.

Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Assessments	Heredity and Evolution	Acquired and inherited traits inherited traits

10. MS_Summary_Like Father, like daughter



Time to teach	Asset Type	Theme	SubTheme
2Minutes	Main Script	Heredityand Evolution	Acquired and inherited traits inherited traits