

# Reaching the Age Of Adolescence

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## Improve your learning

**Q. 1. How is adolescence different from childhood?**

**Answer :** **Childhood** is defined as period of child. It is the time that covers from the birth to adolescence.

### **Adolescence**

This is the complex stage of life because children grow/move from childhood to adolescence. It is the period of the reproductive maturity and period of confusion and transition.

Adolescence starts from the age of 13 years and ends at the age of 19 years.

During adolescence changes occur in external and internal parts of the body.

**Q. 2. A. Write short notes on the following.**

### **Secondary sexual characters.**

**Answer :** **Secondary sexual characters** are those characters which appears at the time of puberty in human. These characteristics are controlled by hormones and help us to distinguish between sexually mature males and females.

### **Secondary sexual character's in Females are—**

- i. Enlargement of breast and erection of nipples.
- ii. Growth of body hairs basically near underarm and pubis.
- iii. Development of thigh muscles.
- iv. Waist is small.
- v. Widening of hips.
- vi. Ovary start producing female sex hormones (estrogen).

### **Secondary sexual character's in males are—**

- i. Growth of body hair (include chest hair, pubic hair, underarm hair).
- ii. Growth of facial hair.

- iii. Enlargement of larynx(Adam's apple).
- iv. More muscle mass than females.
- v. More secretion of oil and sweat glands.
- vi. Broadens of shoulder and chest.
- vii. Testes start producing male sex hormone (testosterone).

**Q. 2. B. Write short notes on the following.**

**Adam's Apple.**

**Answer :** *The Adam's apple* is the partial growth of the voice box or larynx. Larynx is made up of 9 cartilages. During adolescence the thyroid cartilage(largest cartilage) increase/ grow with the larynx(voice box).

Adam's apple is basically a feature of males because in males the size of voice box(larynx) tends to increase during puberty. And this change in the size of voice box is controlled by male hormone(testosterone). However some women's also have an Adam's apple.

**Function—**

- i. To protect the front part of the larynx.
- ii. It makes the voice deep.

**Q. 3. List out the changes in the body that take place at the age of adolescence?**

**Answer :** *The changes in the body that take place at the age of adolescence are—*

- i. Increase in height.
- ii. Change in voice.
- iii. Development of sex organs.
- iv. Appearance of hair in area like underarm, chest, face, legs and arms.
- v. In males testes grow and produce sperms while in females ovary become mature and start producing eggs(ova).

**Q. 4. Match the following:**

1. Testes	a. Estrogen
2. Endocrine gland	b. Pituitary
3. Menarche	c. Sperm
4. Female hormone	d. First menstruation

**Answer :**

1. Testes	c. Sperm
2. Endocrine gland	b. Pituitary
3. Menarche	d. First menstruation
4. Female hormone	a. Estrogen

1.)-(c) Testes is the male reproductive gland whose functions are to produce sperm and testosterone.

2.)-(b) pituitary gland is a type of endocrine gland which is located at the base of the brain. Various hormones are secreted by pituitary gland that regulate the functions of other endocrine glands.

3.)-(d) menarche is the first appearance of menstrual cycle (first menstrual bleeding) in primate females at puberty. It starts at the age of 11-13 years.

4.)-(a) Estrogen is the primary female sex hormones. Responsible for development and regulation of the female reproductive system and secondary sex characters.

**Q. 5. Why acne and pimples are common in adolescents?**

**Answer :** Acne - a condition that occurs when hair follicles plug with oil and dead skin cells. During puberty, in males and females acne is caused by an increase in hormone testosterone.

In adolescence, secretions of sweat and sebaceous gland are very active. Pimples and acne is caused due to the increased activity of sweat and sebaceous glands in the skin. The hair follicles contain the sebaceous gland which produce sebum(oil). Sebum lubricates our hair and skin. But with puberty sebaceous gland start producing extra sebum due to which pores become clogged with sebum and cause pimple and acne. Extra secretions of sweat and sebaceous gland sometimes result in the bad odour from the bodies.

**Q. 6. What can you suggest to your classmates to keep himself / herself clean and healthy?**

**Answer : I will suggest the following things to my classmates to keep himself/ herself clean and healthy are—**

- i. Brush your teeth twice a day.
- ii. Trim your nails regularly.
- iii. Should wear proper clean dress.
- iv. Take bath twice a day.
- v. Sleep early and wake early.
- vi. Take balance diet. No to junk food.
- vii. Play outdoor activities.
- viii. Wash your hands before eating food.
- ix. Just say "NO" to drugs.

**Q. 7. If you have chance to talk with a doctor, what questions your would ask about adolescent emotions and changes in the body?**

**Answer : If I have chance to talk with a doctor, the following questions I would ask about adolescent emotions and changes in the body are—**

- i. How can I control pimple and acne?
- ii. Why my voice is changing?
- iii. Why I feel shy when I talk to opposite sex?
- iv. Why I show restlessness while my parents suggest me to do something?
- v. How can i control my anger?
- vi. What should I do when I am alone?

**Q. 8. Some mobile phones have auditory meter to measure frequency of produced sound. By using this phone measure your friend's voice frequency one from each class VI to X. Report your findings.**

**Answer :** During puberty larynx grows larger and thicker and vocal cords become thicken due to which our voice become deeper.

Change in the larynx or vocal cords affects our voice.

### **8 year old**

Male frequency -259.4 Hz

Female frequency - 282.2Hz

### **9 year old**

Male frequency - 233.04 Hz

Female frequency - 264.28 Hz

### **10 year old**

Male frequency - 255.23 Hz

Female frequency - 253..73 Hz

### **11 year old**

Male frequency - 238.7 Hz

Female frequency - 244.84 Hz

### **12 year old**

Male frequency - 234.41 Hz

Female frequency - 239.33 Hz

**Q. 9. Write five suggestions to improve the performance of Red Ribbon club of your school?**

**Answer : *Five suggestions to improve the performance of Red Ribbon club of our school are—***

- i. Create awareness about HIV /AIDS.
- ii. Conduct health camps/ blood donation camps.
- iii. There should be quiz or poster competition in the school.

- iv. Marches should be done.
- v. Encourage students to become the member of red ribbon club.
- vi. Seminars should be conducted to bring awareness.

**Q. 10. Prepare a three-minute speech on behavioural changes in adolescents.**

**Answer :** Adolescence is the complex stage of life because children move from childhood to adolescence. This is the period of confusion and transition. Adolescence starts from the age of 13 years and ends at the age of 19 years. During adolescence various changes occur in external and internal parts of the body.

Various changes take place in the body at the age of adolescence such as—

- Increase in height.
- Change in voice.
- Development of sex organs.
- Appearance of hair in area like underarm, chest, face, legs and arms.
- In males testes grow and produce sperms while in females ovary become mature and start producing eggs(ova).

Adolescents undergo various behavioural changes such as they want to spend more times with peers, worry about their physical appearance and feel frequent mood swings. All these changes occurs due to the high secretion of hormones.

**Q. 11. Nature prepares human body to reproduce her generations. What do you think of it?**

**Answer :** Reproduction is most important for continuation of human race. Nature has planned everything in well manner. There is proper mechanism for the reproduction. Reproduction take place by the fussion of male and female gametes. Males produce sperms (male gamete) while female produce eggs or ova (female gamete).

The reproduction process starts after the puberty when adolescents become capable of reproduction. There testes and ovaries begin to produce gametes.

During an intercourse the sperm is ejected into the female body where sperms get fuse with egg and form zygote. Zygote later develops into embryo and then finally form foetus (young one's).

**Q. 12. You know that early marriage is a social taboo. Prepare some slogans to prevent this.**

**Answer :** "Be educated stop early marriage"

"Educate girls, stop child marriages"

"Education is for girl, marriage is for women"

"Girl's need education not early marriage"

"Stand on your feet marriage can wait"

"Don't be the spoiler of your child life, stop early marriages"

**Q. 13. Years old Swaroop always think of his height. Can he improve his height? What do you suggest him?**

**Answer :** Yes, he can improve his height.

Growth is one of the important characteristics in human being. We grow to certain height for certain period only. This change takes place in adolescence at maximum pace.

An individual reaches his/ her maximum height during adolescence period only.

So in adolescence period(10-18 years) swaroop should eat balance diet and should play outdoor activities. Swimming is the best way to grow. Proteins, calcium intake and vitamin D can also increase his height.

**Q. 14. Are you angry with your parents. How do you wish your parents to be?**

**Answer :** No, i am not angry with my parents. They always help me and care about me.

**But Few things that i want to see in my parents are—**

- i. I want that my parents should understand me.
- ii. They should have a trust on me.
- iii. I want that they should understand my feelings and listen to my problems.
- iv. They should spend quality time just with me.

**Q. 15. What are your expectations about your parents and teachers?**

**Answer : My expectations from my parents and teachers are—**

- i. They should communicate with me.
- ii. They should give me advise when i need.
- iii. They should trust me.
- iv. They should have a patience.
- v. They should teaches me in a way I can understand.
- vi. They should motivate me to do right things.