

UNIT A: LESSON 7

LEARNING TARGETS

INSTRUCTIONS FOR STUDENTS:

Listen as your teacher reviews the standards and objectives. Your teacher will call on an individual or pair to explain what they mean.

Learning Target:

I can **determine** the **main** ideas and **supporting details** in the **article** “The Digital Revolution and Adolescent Brain Evolution.”

Learning Target:

I can **analyze** the basic **structure** of a **complex** sentence.

determine – decide

main – central or most important

supporting details – helping ideas

article – a short text in a newspaper or magazine

analyze – study something and explain it

structure – the way parts of something are joined together

complex – something that has many different parts

ACQUIRING AND USING VOCABULARY

INSTRUCTIONS FOR STUDENTS:

Your teacher will pre-teach several key words. Use your glossary for the rest of the lesson to find meanings for words you don't know. Words that are **bolded** in the text and word banks can be found in the glossary. The glossary is located in the Appendix at the end of the lesson.

THINKING LOG

INSTRUCTIONS FOR STUDENTS:

Your teacher will ask you a guiding question that you will think about as your teacher reads the text aloud to you. As your teacher reads the text aloud, listen and follow along in your text. After the text has been read aloud, work with a partner to reread the text and answer the supplementary questions. Use your glossary to help you. Your teacher will review the answers with the class. You will then discuss the guiding question(s) with your teacher and the class. Finally, you will complete a written response to the guiding question(s).

GUIDING QUESTION: *Why is the social brain so important for humans? Why might video games threaten the development of social skills humans need for survival?*

THE DIGITAL REVOLUTION AND ADOLESCENT BRAIN EVOLUTION

EXCERPT 5: **DIGITAL REVOLUTION – SOCIAL**

The human brain is a social brain. Our ability to gauge the **moods** and **intentions** of others, to **detect** the truth or **falsehood** of their **communications**, to **discern** friend from foe, and to form alliances is among its most **complex** and important **tasks**. These skills are of premier importance to fulfill our biological imperatives of staying alive (through the protection of the group) and **reproducing or having children**. From this perspective, it is no wonder that so much of our brain is dedicated to **social cognition**.

The central hub of circuitry related to **social skills** is the late-maturing, highly plastic prefrontal cortex. Like any **complex** skills, mastery **requires** lots of practice. Much of the discernment **relies** on exquisitely **subtle** detection of **nonverbal cues**, such as slight changes in eye gaze, millisecond differences in speech timing, synchrony of response to shared environmental stimuli, breathing patterns, body **posture**, touch, **odors**, and so forth. Will the increasing reliance on **digital** social interactions hinder exposure to the "real-world" experiences necessary to **master** these most important skills?

WORD BANK:

alive	environmental	interact	social skills
alliances	eye gaze	lying	speech
body posture	face-to-face	moods	survive
breathe	foe	odor	truth
cues	friend	prefrontal cortex	
detection	intentions	reproduce	

SUPPLEMENTARY QUESTIONS:

1. *What is one of the most complex and important tasks of the brain?*

One of the most important tasks of the brain is using _____.

2. *What four social tasks does the author mention?*

The author mentions the following four social tasks:

- A. our ability to notice the _____ and _____ of other people (what other people are feeling or thinking);
- B. our ability to tell whether someone is telling the _____ or _____
- C. our ability to tell if someone is _____ or _____ (enemy)
- D. our ability to form _____ (be partners) with other people

3. *Why is the social brain so important?*

The social brain is so important because social skills help us _____ (have children) and stay _____.

4. *What is the central hub (command center) of the brain for social skills?*

The central hub for social skills is the plastic _____.

5. *Does the prefrontal cortex mature early or late?*

It matures _____ (early/late).

6. *Does having complex social skills take practice?*

_____ (Yes, it does/No, it doesn't).

7. *What do complex social skills rely on?*

Social skills rely on _____ of, or noticing, nonverbal _____, or signals.

8. *What are some examples of nonverbal cues?*

Examples of nonverbal cues include:

- A. slight changes in _____ (position of eyes)
- B. small differences in _____ timing
- C. how people react to shared _____ stimuli
- D. how people _____
- E. people's _____ (how a person holds his or her body)
- F. touch
- G. _____ (smell)

9. *The author asks if so much reliance on social interaction through video games will prevent people from experiencing “real-world” experiences with people. What does the author worry about?*

The author worries about people who _____ mainly through video games instead of _____. These people may not develop the important and complex _____ they need to _____.

RESPONSE TO GUIDING QUESTION(S):

Why is the social brain so important for humans? Why might video games threaten the development of social skills humans need for survival?

Response:

NEUROLOGIST NOTEBOOK

INSTRUCTIONS FOR STUDENTS:

Work with a partner. Use your neurologist notebook to write down key, or important, information from the text. You will write down main ideas and some details, or specific information, about each main idea. You can use information from your Thinking Log. Some information is already filled in for you.

WORD BANK:

addictive, breathing, **cognition**, **complex**, **digital**, enemy, eye, feelings, friend, important, increasing, **master**, **posture**, practice, **social skills**, **subtle**, **survive**, truth, video games

Summary from yesterday:

The amount of time teens spend on _____ is _____. These _____ may be _____.

Main idea:

_____ cognition is one of the brain's most _____ tasks.

Supporting details:

We use _____ cognition to understand other people's _____, whether they are telling the _____, and whether they are a _____ or _____. These are important _____ that help us _____.

Main idea:

We must _____ social _____ skills to _____ them.

Supporting details:

Social _____ skills are very _____. These skills include noticing many _____, or small, things like _____ gaze, _____ patterns, and body _____. These skills require, or need, a lot of _____ to _____.

Concluding question:

Can we spend too much time playing _____ and using _____ devices to _____ social _____?

FUNCTIONAL ANALYSIS

INSTRUCTIONS FOR STUDENTS:

Work with your class to analyze an important sentence(s) from the text.

- Every sentence has someone or something that *does* something. First you determine this *who or what*.
- Every sentence has something that they *do or did*. Figure that part out next. Now you have the most important parts of the sentence in place.
- Then you will figure out what they did the action *to or for*.
- Finally, you will write the descriptive details.
- Write your answers in the spaces below.
- When you are done, write the sentence again in your own words.

You may want to use definitions from the glossed text in the sections above.

Functional Analysis:

Our ability to gauge the moods and intentions of others, to detect the truth or falsehood of their communications, to discern friend from foe, and to form alliances is among its most complex and important tasks.

WHAT: Our ability

DETAIL (To What): *to gauge the _____ and _____ of others*

DETAIL (To What): *to detect the _____ or _____ of their communications*

DETAIL (To What): *to discern _____ from _____*

DETAIL (To What): *and to form _____*

WHAT HAPPENED (Action): _____

WHAT: *among its [the brain's]* _____

What the sentence says:	My own words:
Our ability	_____
to gauge the moods and intentions of others	to tell _____
to detect the truth or falsehood of their communications	to tell _____
to discern friend from foe	to tell _____
and to form alliances	and to _____

is	is
among its most complex and important tasks	the brain's _____
Write the sentence in your own words and then explain it to your partner.	

to	_____
to	_____
to	_____
and to	_____
is	_____ .
	_____ .

EXIT TICKET

INSTRUCTIONS FOR STUDENTS:

This graphic organizer will help you keep track of information about the brain for all of the readings. Each day you will write down new information from each reading.

Today we will write about social cognition skills.

- First, write what we need social cognition skills for.
- Next, the types of social cognition skills.
- Then write what we need to do to develop social cognition skills.
- Finally, write why it might dangerous for teens to spend too much time using digital devices (*so what?*).

WORD BANK:

breathing, body posture, eye gaze, feelings, friend, practice, small, truth

What we need social cognition for	We need social cognition to understand other people's _____, whether they are telling the _____, and whether they are our _____.
Types of social cognition skills	Social cognition skills including noticing _____ things, like _____, _____, and _____.
What we need to do	We must _____.
So what?	[Write why it might be dangerous for teens to spend too much time using digital devices:]

Appendix: Glossary

Word	Definition	Example
addictive	something that causes addiction (you cannot stop using it)	For some people drinking alcohol is addictive.
cognition	how the brain processes, or understands information	From this perspective, it is no wonder that so much of our brain is dedicated to social cognition .
communication	how we share messages, information, or ideas (like talking)	Our ability to detect truth or lies in communication is a complex and important task.
complex	not simple	Our ability to gauge the moods and intentions of others, to detect the truth or falsehood of their communications, to discern friend from foe, and to form alliances is among its most complex and important tasks.
detect (detection)	discover or notice	Our ability to detect truth or lies in communication is a complex and important task.
digital	electronic	Will the increasing reliance on digital social interactions hinder exposure to the "real-world" experiences necessary to master these most important skills?
discern	tell apart	Our ability to discern friend from foe is a complex and important task.
falsehood	Lie	Our ability to detect the truth or falsehood of what people say is a complex and important task.
hinder	stop something, or get in the way of it happening	Will the increasing reliance on digital social interactions hinder exposure to the "real-world" experiences necessary to master these most important skills?

Word	Definition	Example
intention	motive; what you are thinking or planning regardless of your actions	Our ability to gauge the moods and intentions of others is a complex and important task.
master	learn something very well or perfectly	Will the increasing reliance on digital social interactions hinder exposure to the "real-world" experiences necessary to master these most important skills?
mood	a temporary feeling or emotion	Our ability to gauge the moods and intentions of others is a complex and important task.
nonverbal cue	a gesture or action that gives information	Much of the discernment relies on detection of nonverbal cues , such as slight changes in eye gaze, breathing patterns, body posture, and so forth.
odor	a smell	Much of the discernment relies on detection of nonverbal cues, such as body posture, touch, odors , and so forth.
posture	the way you hold or carry your body	Much of the discernment relies on detection of nonverbal cues, such as slight changes in eye gaze, breathing patterns, body posture , and so forth.
require	need	Developing social skills requires lots of practice.
rely (reliance)	depend on something	The increasing reliance on digital social interactions could hinder exposure to the "real-world" experiences.
social cognition	how the brain processes, or understands, information about other people and social situations, or situations where people are with each other	From this perspective, it is no wonder that so much of our brain is dedicated to social cognition .
social skill	how well you interact with other people	Developing social skills requires lots of practice.

Word	Definition	Example
subtle	not obvious; difficult to see or notice	Much of the discernment relies on exquisitely subtle detection of nonverbal cues, such as slight changes in eye gaze, millisecond differences in speech timing, synchrony of response to shared environmental stimuli, breathing patterns, body posture, touch, odors, and so forth.
survive	continue to live	These people may not develop the important and complex social skills they need to survive.
task	a job; something you need to get done	Our ability to detect truth or lies in communication is a complex and important task .